



BANTRY BAY TERMINAL LTD

PORT INFORMATION BOOK

SINGLE POINT MOORING

LATEST REVIEW MARCH 2024

1.0 **PREFACE**

Sunoco LP Bantry Bay Terminal (BBT) operate the Whiddy Island Oil Terminal. The terminal is located in Bantry Bay, Ireland. The terminal consists of an offshore single point mooring (SPM), subsea pipelines and an onshore tank farm. This Port Information Book states the terms and conditions under which tankers will operate within the port in general and specifically with regards to the transfer of petroleum and ballast at the Bantry Bay SPM and contains information pertaining to BBT requirements, available services and operational procedures at the terminal. All vessels operating at BBT's SPM facility are required to comply with these requirements, procedures, terms and conditions.

All marine operations in Bantry Bay are controlled by the Port Authority (PA) which is Bantry Port Company. Decisions regarding ship movements and maritime emergency measures mentioned in this manual will be made in close co-operation with the Port Authority. The ultimate decision with regard to these matters lies with the Harbour master. The information contained in this book does not supersede or replace any information or regulations contained in publications produced or provided by any regulatory body.

Whilst every effort has been made to ensure the accuracy of the contents, BBT does not accept responsibility for any omissions or errors which occur in this document. It is intended solely as a guide.

Notwithstanding the foregoing or any provision of this booklet, the Port Authority and BBT may take whatever measures may be necessary to prevent hazards to human safety and health, property and to the environment that may arise from any activity concerning all or any part of the port.

The book relates only to the operation of the BBT facilities and does not address any other marine related activities within Bantry Bay.

1.1 **Function**

The terminal is in operation for the importation and exportation of crude oil and products. Operations at the terminal are carried out in a safe and efficient manner with particular emphasis on preservation of human life and the environment.

1.2 **Regulation**

All tankers must be constructed, operated, equipped and maintained to all current IMO requirements and pass the Sunoco BBT Ship Vetting Procedure.

Tanker Masters are advised that they must not enter Bantry Bay if the tanker does not comply in every respect with the requirements of National and International regulations including all IMO regulations unless specifically permitted to do so by the Harbour Master.

Operations are carried out in accordance with best industry practices and are subject to all relevant Irish statutory requirements and law and follow the guidelines provided in the "International Safety Guide for Tankers and Terminals" and OCIMF "Single Point Mooring Maintenance and Operations Guide" . Masters are reminded of their responsibilities in this regard and should be aware that failure to comply with statutory, safety and pollution regulations will incur serious repercussions.

1 **Operator**

Address:	Sunoco LP Bantry Bay Terminal Ltd Whiddy Island, Bantry, Co. Cork, Ireland.
Telephone:	+353 27 50380/1/2/3/4
VHF Radio:	Channel 16, 11, 14, 92
Administration:	+353 27 50346/53548

2.2 **Port Authority**

Address (and Harbour Master):	Bantry Bay Port Company, The Square, Bantry, Co. Cork, Ireland.
Telephone:	+353 27 53277
Harbour Master:	+353-87-9532777 (24 hours)
VHF Radio:	Channel 16, 14, 11, 9, 90

2.3 **Coastal Radio Network**

Bantry Radio	VHF Channel 16, 23
Valentia Radio	VHF Channel 16, 23

2.4 **Zone**

Time Zone	U.T.C. (summer: U.T.C. +1)
Spoken Language	English

2.5 **Port Limits**

The Port is bounded by an imaginary line joining Crow Head and Sheeps head except the waters of Berehaven sound from Ardnakinna Point to the Roanarraigmore lighthouse and the fisheries harbour at Castletownbere.

The outer bay is the area to seaward of an imaginary line drawn due south from Shot Head to the south shore of Bantry Bay.

The inner bay is the area which lies east of an imaginary line drawn due south from Shot Head to the south shore of Bantry Bay.

2.6 **Tanker Pilot Station**

The tanker pilot station for tankers arriving for the oil terminal is located at 51-36 North 009-47 West.

3.0 **TERMINAL INFORMATION**

The terminal is situated on the South West of Whiddy Island. Tankers calling at the terminal are berthed to a SPM located one mile North West of Whiddy Island and the Terminal Control Room. The tank farm is on Whiddy Island.

The buoy is located in the following position: 51° 41'.8 North, 009° 32'.1 West. British Admiralty Charts No. 1838, 1840 and 2424 refer. The SPM is located in approximately 30m depth.

Features of the marine Terminal and its operational procedures are in compliance with recommendations published in the International Safety Guide for Oil Tankers and Terminals (ISGOTT).

3.1 **General Description**

The SPM system consists of a Catenary Anchor Leg Mooring (CALM) type of SPM which allows the vessel to vane around the stationary buoy in response to wind, wave and current action. The buoy is 12 metres in diameter and has an installed draft of 3.2m. The buoy is anchored with six legs of 102mm chain. Each leg is 365m long and terminates in a high holding capacity anchor. A 42 inch diameter submarine crude line and a 30-inch diameter product line connect the onshore facilities to a PipeLine End Manifold (PLEM) which is located on the seabed under the SPM. Two 24-inch diameter underwater hose strings connect the PLEM to the underside of the buoy. A floating hose strings connect the buoy to the tanker. The 20-inch diameter floating hose string(s) are reduced to 16-inch diameter over the rail and tail hoses at the vessel. All hose flanges are ANSI 150-pound flat face type.

3.2 **Safety Features**

The terminal operates to the highest safety standards and included in the safety features are:

- An SPM monitoring system consisting of:
 - A hawser load monitoring system is installed on the buoy. The hawser load is available on a portable telemetry unit so that the terminal representative can monitor this load on board the tanker during cargo operations and whilst the tanker is at berth.
 - Pipeline pressures and valve positions are monitored during cargo operations.
- The overall SPM system is monitored and controlled by a remotely operated control system.
- The floating hose string is equipped with a double acting marine breakaway coupling. Closure can be caused by high loads in the hose string as in the case

of a tanker break out. The coupling will also separate due to an extreme pressure in the hose string.

- Hydraulically actuated valves are located in the PLEM. Closure of these valves can be initiated from either the Control Room or onboard the tanker through the use of the portable telemetry unit. Additional, remotely and manually operated valves are also present on the buoy.
- All flexible crude oil loading/discharge hoses (floating and subsea hoses) are of double carcass design with integral leak detection systems.
 - The hoses are inspected according to OCIMF guidelines.
 - When there is no tanker moored, oil in the hoses is displaced.
 - The rail hose is electrically discontinuous.
- Undersea pipelines have a concrete weight coat to provide stability.
 - The underwater **product** line is internally coated to minimise internal corrosion.
 - The undersea pipelines are cathodically protected along their entire length.
 - A restricted area has been established for the SPM. The area is shown in Appendix 1. No unauthorised vessel may enter or manoeuvre within the Restricted Area without a Pilot and/or Mooring Master aboard, unless given specific clearance from the Harbour Master or BBT Control.
- All mooring equipment complies with OCIMF recommendations.

3.3 Aids to Navigation

The following aids to navigation are provided in the vicinity of the terminal:

Lighthouse

Roancarrigmore

Buoys

<u>Name</u>	<u>Characteristics</u>	<u>Position</u>
Indigo North	Quick Flash White	51°39' 25N 009°26' 75W
Sheelane South	Flash (2) Red every 6 secs	51°41'. 16N 009°35'.58W
Coulagh Rocks	Flash Red every 3 secs.	51°41' .75N 009°33'.90W
SPM	Morse (U) White Light 10 secs.	51°41'.80N 009°32'.10W
Gerane West	Q. Fl. (9) 15s	51°40'.50N 009°32'.95W
Gerane North	Fl. G	51°41'.10N 009°32'.85W
League	Fl.(3)G. 6s	51°40'.70N 009°33'.90W
Carrigskye	White Gp. Fl. 2	51°42'.62N 009°31'.58W

The bay is scanned by radar and monitored by the Port Authority and Bantry Terminals.

3.3.2 SPM Buoy

The SPM Buoy is equipped with the following navigational aids:

- Marine Signal Light

A battery powered flashing light is mounted on the buoy turntable. This light has a three (3) mile (4.8km) visibility. The light is designed for 360° visibility.

Signal Characteristics: Morse (U) - every 10 seconds

- Virtual AIS display with MMSI number 992506100

3.4 Charts

3.4.1 General

The following British Admiralty Charts are recommended for use when approaching Bantry Terminals:

No. 1838, 1840 and 2424.

4.0 **ENVIRONMENTAL CONDITIONS**

4.1 **Climatic**

Prevailing winds are from the west and south-west. Wind velocities can exceed 60 knots from the south-west during the winter months. The SPM berth is protected from all directions except south west through to west. Nonetheless attention must frequently be paid to weather forecasts. Forecasts are available through the normal channels and sources.

4.2 **Berthing Limitations**

The feasibility of berthing operations will be determined by the pilot in conjunction with the harbour master and by weather conditions. A swell in excess of 2 metres would be considered the maximum allowable condition for berthing and hose connection. Wind speed is not considered a significant factor since the vessel always berths head to wind. Significant factor is invariably sea condition. Vessel may berth in up to gale conditions when the wind is easterly and may **not** be able to berth in significantly lower wind speeds from a westerly direction.

4.3 **Operating Limits**

Regardless of the sea conditions at the time, cargo transfer operations will cease when the mooring load reaches a sustained load of 100 tonnes in the case of vessels greater than 150,000 dwt. When the mooring load reaches 150 tonnes the vessel must depart the mooring. The OCIMF mooring equipment of vessels less than 150,000 dwt are limited to a safe working load of 200 tonnes. Therefore, on vessels less than 150,000 dwt, cargo operations should cease when the mooring load reaches 60 tonnes. The vessel must depart the mooring when the load reaches 100 tonnes.

Cessation of Cargo Operations is always subject to the determination of the Pilot/Mooring Master and the Harbour Master.

4.4 **Design Limitations**

The Bantry Terminals SPM is designed to operate with vessels from 30,000 dwt to 320,000 dwt. The maximum operated mooring load of the SPM is set at 300 tonnes. Any larger load violates the SPM design certificate, but as a safety precaution the vessel must unmoor from the SPM when the load reaches 100 tonnes.

4.5 **Buoy Survival Conditions**

The Bantry Terminals SPM is designed to survive a combination of the following conditions:

Maximum Wind Speed	53 m/sec.
Maximum Wave Height	10.0 m
Maximum Sign. Wave Height	5.4 m
Maximum Current Velocity	0.5 m/sec.
Maximum Tidal Range	3.3 m

4.6 **Wind Speed Indicator**

The buoy is equipped with a wind speed indicator. The Pilot/Mooring Master has access to the wind speed data through the portable telemetry unit, which he will bring on board.

4.7 **Water Depth/Tide**

Chart datum is 29.2 metres. At MHWS the depth is 32.6 metres and at MLWS the depth is 29.7 metres and the tidal range is approximately 3.3 metres at spring tides and 1.7 metres at neap tides. No appreciable current exists and at its strongest does not exceed 0.5 knots.

4.8 **Weather Forecasts**

BBT receives regular weather reports and advice. Upon request weather information will be relayed to tankers in the vicinity.

5.0 **COMMUNICATIONS**

All arrival and vessel movement notices must be sent to the Agent, Harbour Master and BBT. Delays caused by failure to comply with this requirement are the sole responsibility of the vessel.

5.1 **Communications Concerning Arrival**

En route to Bantry Bay a tanker's ETA should be communicated to BBT and the Agent at Bantry 72, 48 and 24 hours prior to expected arrival. On passages of less than 24 hours the ETA should be sent as soon as possible. No tanker will be permitted to enter Bantry Bay unless the Harbour Master has been notified by the agent, in accordance with the foregoing except that a minimum of 24 hours notice is always required.

A Standard Message will be sent from the Terminal via the agent to all tankers calling at the terminal in advance of the tanker's arrival. It will provide some information but it will also request information from the tanker. A satisfactory reply must be received prior to arrival. Failure to provide a satisfactory replay may prohibit the tanker from berthing on arrival or at all.

All tanker movements within Bantry Bay must be reported to the Harbour Master.

5.2 **Pre-Arrival Information Exchange**

Prior to arrival an exchange of information is made between the tanker and the Terminal which includes a check on the tanker's ability to comply with international safety and pollution prevention standards.

Before a tanker is permitted to enter Bantry Bay the Master must provide the Harbour Master with the information listed in Schedule 1 and Schedule 2 "Information on Vessels Carrying Dangerous or Polluting Goods".

Standard Message to Oil Tankers (initial visit)

An acceptable response must be given to the standard message prior to issue of permission to enter Bantry Bay.

5.3 **VHF Communications**

The terminal control room "Bantry Terminal" maintains VHF watch on Channel 14 or by phone on + 353 27 20831.

The tanker should make VHF and/or email contact directly with the terminal and the pilot as soon as possible but preferably at 2 to 4 hours prior to passing Sheeps Head.

On making VHF contact the terminal will provide the master with the following information:

1. Pilot boarding time and location.
2. Berthing prospects.
3. Pilot ladder requirements.
4. Recommended anchorage if delay is envisaged.
5. VHF working channels.

5.4 **Anchoring on Arrival**

If the berth is not available for any reason, vessels may anchor in the bay, weather permitting.

Suitable anchorage positions are marked on the Admiralty chart.

5.5 **Hours of Operation**

The terminal is operated on a 24-hour basis all year round. Berthing is generally restricted to daylight hours.

5.6 **Vessel Vetting**

- The terminals specific requirements and limitations are documented in the Terminal Information and Port Regulations handbook and written into the Sunoco BBT Tanker vetting procedure.
The Marine Terminal Superintendent is accountable to ensure this information is correct and up to date. The terminal may reject vessels which do not meet these criteria or for any other justifiable reason.
- Any unsafe condition, vessel or crew deficiency should be reported to the Marine Terminal Superintendent who will make a feedback report to our third party vetting partner. In any event unsafe acts or omissions should be dealt with immediately.

6.0 VESSEL REQUIREMENTS

NOMINATION PROCEDURE AND VESSEL REQUIREMENTS at Bantry Bay SPM

Tankers to be accepted by Sunoco Bantry Bay Terminal (BBT) must be nominated at least 5 days in advance of arrival in order to vet the vessel and mobilize marine resources such as tugs etc.

In Addition ALL vessels MUST:

- A. Comply with the following dimensions:
- | | | | |
|----------------------------------|----------------|--------|------------|
| Maximum Size | 320,000 tonnes | summer | deadweight |
| Maximum length overall | 340.0m | | |
| Maximum draft | 23.0m | | |
| Maximum bow to manifold distance | 180.0m | | |
- B. Be equipped with oil transfer equipment that conforms to the technical recommendations of the Oil Companies International Forum (OCIMF) "Recommendations for Oil Tanker Manifolds and Associated Equipment", Latest Edition.
- C. Be equipped with shipboard mooring fittings installed and located for safe and effective mooring to an SPM and in compliance with the OCIMF "Recommendations for Equipment Employed in the Mooring of Ships at Single Point Moorings", latest edition and BBT requirements, **which are a 76mm stopper with a minimum SWL of 200 tonnes. A Smit Bracket is not acceptable.**
- D. Tankers up to 150,000 DWT to be equipped with an operational crane, located near the cargo manifold for hose handling, capable of lifting and sustaining a safe working load of 10 tons to a height of 13.7 m above deck level. Tankers above 160,000 DWT should have a 20-ton crane to cater for extra hose weight due to their greater freeboard.
- E. Be provided with intrinsically safe communications equipment.
- F. Have an operating inert gas system capable of providing a sufficient supply of good quality inert gas with an O₂ content in the supply of less than 5% and in the tanks of less than 8%.

- G. Have a functional speed log.
- H. Combination Carriers (OBO's) are not permitted at the terminal.
- K. **All** vessels must in any case pass the Sunoco BBT Ship Vetting Procedure and be SBT.

6.2 **Conditions of Vessel**

Each tanker calling at BBT must have passed the BBT vetting process and have a competent crew capable of communicating in English. She shall not leak oil nor be in a condition that presents a risk or threat of a prohibited oil discharge.

Prior to arrival, the master shall ensure that the vessel does not have stern seal leakage. Stern seal pressure shall be monitored throughout the cargo transfer to ensure that changes in draft or trim do not cause a stern seal leak.

6.3 **Navigational Equipment**

Vessels arriving in Bantry Bay shall have on board current charts to the appropriate scale, current List of Lights and Sailing Directions and current Tide Tables. All navigation equipment shall be functional.

6.4 **Pre-Arrival, Connection and Transfer**

Preparations, procedures, tests and inspections to be followed both by the tanker and by BBT during the pre-arrival time, connection and transfer must meet the recommendations of OCIMF "Single Point Mooring Maintenance and Operations Guide", second edition 1995.

The Mooring Master/Pilot will complete the Tanker Timesheet. This log documents the activities of a vessel from arrival to departure. Time and date will be noted. Both the vessel master and the Pilot will sign this log prior to the disembarkation of the Mooring Master.

The Mooring Master will complete the safety check list that shows all the items to be tested or inspected in order to comply with current BBT safety rules. The inspection is to be made and the check list is to be signed both by the tanker master and by the Mooring Master before the start of oil transfer operations.

6.5 **General Requirements and Responsibilities**

6.5.1 **Pollution**

The ship's Master and personnel will always act in accordance with MARPOL 73/78 and all MARPOL amendments as well as appropriate national legislation and harbour byelaws.

With respect to MARPOL annex 1 it is the ship's Master's responsibility to ensure that no oil or oily water is pumped or spilled overboard from his ship.

It is BBT policy that no ballast water except segregated ballast shall be discharged into Bantry Bay.

In the event of any spillage or loss of oil from the vessel, the vessel shall be responsible for all costs and expenses of cleanup and for any damages to property or injury to persons resulting from such spillage or oil loss.

Any and all actions will be taken by Bantry port company, Bantry Terminals Limited and Cork County Council to minimise the consequences of oil pollution and all resulting costs will be to the vessel's account.

6.5.2 **Master's Responsibility**

The Master of the vessel shall remain solely responsible for the safety and proper operation of the vessel at all times. Neither the Bantry port company, Cork County Council nor Bantry Terminals Ltd., nor their respective agents, officers and personnel shall be responsible for any loss or damage arising in consequence of any assistance, instruction or advice given or tendered to the vessel.

6.5.3 **Mooring Master**

The Mooring Master is supplied by BBT on the condition that, when boarding or assisting in the vessel, he becomes the agent and servant of the owners and/or charters of the vessel in every respect.

Bantry Terminals Ltd, shall not be responsible for, and shall be held harmless by the owners and/or charters of the vessel, from all liability for any damages resulting from or caused by any action taken, order given, or decision made (or any omission thereof) by the Mooring Master or in respect to his handling of the mooring or cargo discharge operations.

6.5.4 **Pilot**

The Pilot is supplied by BBT on the condition that, when boarding or assisting in the vessel, he becomes the agent and servant of the owners and/or charters of the vessel in every respect.

The Port Authority shall not be responsible for, and shall be held harmless by the owners and/or charters of the vessel, from all liability for any damages resulting from or caused by any action taken, order given, or decision made (or any omission thereof) by the Pilot or in respect to the navigation of the vessel.

6.5.5 **Support Vessels**

When the assistance of support vessels is supplied (e.g. tugs, pilot boats, mooring launches, escort/response vessel or maintenance vessel), the support vessel master and crew thereof, shall in the performance of services as they render to the tanker, become and be deemed to be agents and servants of the owners and/or charterers of the tanker assisted.

Bantry Port company, Cork County Council and Bantry Terminals Limited shall not be responsible and shall be held harmless from all liability for any damages that may be done by or to the support vessels or their crews while assisting the tanker, whether occasioned by any act or omission of the support vessels or their crews or by any defect or inadequacy of the support vessel or the support vessel's machinery or gear. This shall not give the tanker master the right to detail such support vessels for duties other than mooring, unmooring or hose works nor shall it prevent the support vessels from being reassigned during mooring, unmooring or hose work.

6.5.6 **Master's Acknowledgement**

"Port Entry Conditions Agreements" summarises the requirements of section 4.5 and required the master's signature for acknowledgement. The Master shall sign at, or prior to, the pre-arrival/pre-mooring conference.

6.5.7 **Ballast**

Bantry Terminals Limited is committed to the preservation of the marine environment in Bantry Bay.

Accordingly, all tankers intending to discharge ballast overboard must do so in accordance with the Ballast Management Plan for Bantry Bay, which is operated by Bantry port company through the Harbour Master.

The plan complies with the IMO **"Guidelines for the Control and Management of Ships' Ballast Water to Minimise the Transfer of Harmful Aquatic Organisms and Pathogens"**.

Only totally segregated ballast water from SBT tankers will be allowed to be discharged into the bay, and then only with the express permission of the Harbour master.

This permission will only be granted after review and approval of the '**Ballast Water Reporting Form**' which must be completed by each vessel prior to arrival in the Bay.

7.0 **FACILITIES AND SERVICES**

7.1 **Harbour Craft**

The terminal provides craft necessary for the tanker's operations at the SPM. Craft required by the tanker for the transportation of stores and personnel must be requested from the tanker's agent.

7.2 **Shipping Agents**

Shipping Agents are available to provide the usual services to tankers and handle the formalities of Customs & Excise, Immigration and Port Health.

7.3 **Bunkers and Water**

There are no facilities for the supply of bunkers and fresh water in large quantities.

7.3.1 It is not possible to organise the supply of bunkers or fresh water locally.

7.3.2 For large quantities of bunkers the tanker must make arrangements through the owner. This operation will only take place prior to berthing and/or after departing from the SPM and with the permission of the Harbour Master.

7.4 **Stores**

Arrangements for delivery of stores must be made through the agent and with the prior permission of the Terminal. Fresh provisions and meats are readily available in Bantry, for all other stores pertaining to the husbanding of a tanker prior arrangement must be made through the agent.

7.5 **Refuse Disposal**

The Master must arrange through his agent for refuse collection.

7.6 **Shore Leave**

Due to the very exposed location of the SPM, shore leave may be prohibited. Permission to grant shore leave must be obtained by the Master from the Terminal through the agent.

7.6.1 When shore leave is permitted, the Master must retain on board sufficient crew to safely operate the tanker and to depart from the SPM and put to sea if necessary.

7.6.2 Persons who become intoxicated or disorderly will not be transported back to the tanker.

7.7 **Medical**

There is a hospital in Bantry. However, serious cases may be transferred to Cork for treatment.

Doctors are available and will visit the tanker if required and weather permitting.

7.8 **Travel**

There is an airport at Cork, situated 60 miles from Bantry, with frequent daily flights to Dublin, London and other major cities in the United Kingdom and Europe.

8.0 **MOORING/MANOEUVRING PROCEDURES**

The Master of a vessel approaching Bantry Bay should ensure that he has on board, such publication as, current Charts to the appropriate scale, current List of Lights and Sailing Directions and current Tide Tables.

Vessels will approach from the SouthWest, which is frequently the direction of the wind and will proceed per instructions outlined in section 5.2 or 5.3.

It is a directive of the Port Authority that vessels proceeding to the SPM will proceed at a safe speed and be escorted by tugs as directed by the Pilot.

8.1 **Navigational Aids**

Masters are advised to heed the cautionary notices on the charts of the area, up to date sailing directions, notices to mariners, and admiralty lists of lights.

Bantry Bay extends 18 miles inside Sheeps Head and is 3 to 4 miles wide. The land on either side of the Bay is high, Hungry Hill (682m), Sugarloaf (571m).

The tidal streams are slight and rarely exceed 0.5 knot at the SPM.

The Bay is generally deep but foul patches exist which must be avoided.

8.2 **Recommended Anchorages**

If, for whatever reason a tanker does not berth upon arrival, she may subject to the Harbour Masters Permission anchor in the Bay. Suitable tanker anchorages are marked on the Admiralty chart

8.3 **Pilotage**

Pilotage to and from the SPM is compulsory.

The duty pilot will attend on board the vessel until the vessel is outward bound and clear of the SPM.

The terms and conditions contained in the "Conditions of Use of Bantry Terminals Facilities" control the legal and practical relationship between Bantry Terminals and the vessel using the terminal.

Communication with the pilot is by VHF radio and initial contact should be made on Channel 14. When vessels arrive at the pilot station a good lee should be provided for the pilot who will normally board from the Pilot/Line Boat attending the vessel. The pilot ladder must conform to internationally accepted standards of construction.

The Pilot will normally board incoming vessels approximately 1-1.5 miles south of Shot Head.

Duties of the Pilot

On board the vessel the pilot is advisor to the Master for the safe navigation of the vessel. The Master's actions in consequence of, or counter to, this advice will not release the vessel from responsibility for the consequence of these actions. The Pilot will:

- 1) Board the vessel as early as possible.
- 2) Advise the Master on local navigational issues.
- 3) Be aware at all times of the effect of the vessel on the SPM and advise the Master.
- 4) Co-ordinate communication and navigation with the vessel, tugs, terminal, SPM and port authority.
- 5) Advise the Master on mooring load parameters and berthing and unberthing procedures.
- 6) Liase with the Master in case mooring loads reach unacceptable levels.
- 7) Advise the Port Control of conditions at the vessel and liase between the Master and the Harbour Master.
- 8) Liase between the Master, Mooring Master, terminal, support vessels and port authority in emergencies.

8.4 **SPM Exclusion Zone**

The SPM exclusion zone includes a diameter of 1040 m around the position of the buoy.

Unauthorised entry into this SPM exclusion zone is prohibited.

Manoeuvring within the prohibited manoeuvring area by smaller vessels will be permitted at the discretion of the Mooring Master.

Vessel size, weather conditions and the use of tug assistance are factors which will enter into the Mooring Master's decision.

8.5 **Securing Anchor**

Prior to approach and while at the SPM anchors are to be positively secured with locking pawls and/or securing wires/turnbuckles. No work on windlass or anchoring gear which requires releasing the brake or removal of securing gear/pawls is allowed while at the SPM.

8.6 **Pre-Arrival/Pre-Mooring Conference**

Prior to the actual commencement of the mooring operations, a pre-arrival/pre-mooring conference will be held between:

1. The Master
2. The Pilot
3. The Mooring Master

to discuss and agree the intended mooring manoeuvre. At a minimum, the following items of importance and their effects on the mooring manoeuvre shall be included in the pre-mooring conference:

- a. A review of the local chart with special emphasis on navigational hazards.
- b. Discussion of prevailing weather and sea conditions.
- c. Discussion of general local currents, apparent prevailing current conditions and their effects in the vicinity of the buoy.
- d. The intended route and speed of approach to the buoy.
- e. Step by step description of the procedures to connect to the buoy, including the use of tugs and line handling boats.
- f. Discussion regarding manoeuvres, should it become necessary to abort the approach.
- g. Discussion of any limitations of the ship.
- h. The Master will provide a ship's VHF radio to the Mooring Master. The Mooring Master and a representative of the vessel shall test radio communications between the vessel and the terminal. **In the event of a Break down in these communications, all transfer operations must cease as soon as possible.**
- i. Emergency Procedures.

On Completion of Mooring operations the Pilot will also act as the loading Master for the vessels stay, his duties shall include but not be limited to.

1. Deliver the Port Information Book and safety notices to the Master.
2. Receive the signed Acceptance Forms and Indemnity Forms.
3. Return these forms to the shore.
4. In company with the tanker's chief officer conduct the Key safety conference and complete any pre-start up paperwork including the ISGOTT ship-shore safety checklist
5. Agree the vessels loading/discharge plan.
6. Agree sequences and procedures for:
 - (a) Start-up
 - (b) Loading or discharging
 - (c) Ballasting or de-ballasting
 - (d) Topping off
 - (e) Emergency stopping
 - (f) Transfer rates
 - (g) Cargo and ballast quantities

8.7 **Role of the Mooring Master**

The Mooring Master will board the vessel with the Pilot, and be responsible for supervising the berthing/un-berthing operation on deck and also the Hose connection/disconnection procedures. As such, some activities under mooring masters remit are

- 1 Inspect the vessel's mooring equipment.
- 2 Inspect the hose handling equipment and manifold connections.

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- 3 Participate in the pre-mooring conference if possible
 - 4 Advise the Master on terminal policy and procedures.
 - 5 Ensure that the vessel is ready in every respect to berth.
 - 6 Advise the Pilot and the terminal that berthing can proceed.
 - 7 Advise the ships officer on the forecastle head during the berthing operation and liaise with the Pilot on the bridge.
 - 8 Advise the ships officer on the hose connections.
 - 9 Supervise the connection, flushing and disconnection of the hoses.
 - 10 Monitor mooring loads, pressures, and rates and take appropriate action in good time to avoid accidents.

8.8 **Master's Responsibilities**

The Master is at all times responsible for his vessel, its operations and their consequences on personnel and property. Amongst his duties he must ensure that:

- a. His vessel is in full compliance with Section 6.0 (Cargo Transfer Procedures).
- b. An officer fluent in English is on duty at all times.
- c. His vessel's main engine must remain available for immediate manoeuvring.
- d. A crewman who is in radio contact with the officer on duty maintains a continuous round-the-clock SPM lookout.
- e. Sufficient deck and engine crew are available to disconnect hoses and to unmoor and manoeuvre in event of an emergency.
- f. He is advised of wind, weather and sea conditions.
- g. He is appraised of acceptable mooring loads, pressure levels and cargo rates and takes proper and timely action to avoid accidents.
- h. Emergency fore and aft towing wires of sufficient size and length are rigged and tended with their eyes at the water's edge.
- i. Standby boat is in attendance on site to assist if necessary.
- j. During oil transfer, rates and quantities are provided to the terminal person-in-charge on a regular schedule.
- k. A deck watch is continuously maintained to survey deck and surface of the water for possible oil pollution.
- l. Any oil spills, regardless of the amount shall be reported to the terminal.
- m. The vessel will fully comply with and follow the operational procedures as outlined in the current edition of "Single Point Mooring and Operation Guide", Section 4: Operational Procedures, published by OCIMF and will fully comply with and follow the latest edition of OCIMF/ICS publication "International Safety Guide for Oil Tankers and Terminals (ISGOTT)".
- n. On-site tug assistance is available for all mooring and unmooring operations involving laden or partially laden tankers.
- o. Fulfil all his other duties and responsibilities.

9.0 **PORT OPERATIONS**

9.1 **Pre Arrival**

Prior to the tanker's arrival, information interchange will take place as specified in Section 3.

9.2 **Pre Berthing Checks**

9.2.1 **The Buoy**

On the day prior to the arrival of the tanker the Mooring Master and the mooring crew will check that the free board and trim of the buoy are correct and if possible board the buoy to check that the hatches are secure. The mooring hawser connections should be inspected for tightness and damage and the correct operation of navigation and other equipment established.

The condition of the hose connections, valves and pipework and the fluid swivel should be inspected for tightness and leaks and the valves checked for correct setting. The telemetry and instrumentation for monitoring load, fluid pressure and temperature and for the operation of valve actuators should be switched on.

9.2.2 **The Hoses**

The floating hoses should be inspected to ensure that they are not damaged and are streaming freely. Careful attention should be paid to the hose pick up arrangements to ensure that they are not fouled.

9.2.3 **The Hawser**

The hawser should be inspected for damage, also required to be examined are the chain support buoy and pick up ropes to ensure that they are streaming freely. Careful attention should be paid to the connection between the pick up rope and the chaffing chain. The hawser furthest away from the floating hoses should be tied back to the SPM or held at 90° to the system to keep it clear until the chafe chain is secure.

9.2.4 **Ancillary Mooring Equipment**

The Mooring Master shall examine all mooring equipment including, wires, shackles, messengers and stoppers.

9.2.5. **Ancillary Hose Connection Equipment**

The Mooring Crew shall ensure that sufficient items of equipment required for connecting the hoses are available on board the line boat and ready to be placed on board the tanker.

The items required are, reducers, gaskets, bolts, tools, strops and shackles, hose snubbing ropes, chain blocks, etc.

All the ancillary equipment should be made ready in such a way that it can be lifted on board the tanker in one single lift.

9.2.6 Weather Forecasts

Because of the exposed location of the SPM, the weather plays a significant part in operations. The pilot will have an updated weather forecast and be monitoring conditions constantly. Berthing will only be confirmed once there is a favourable weather window forecast for the duration of the vessels expected stay.

9.2.7 Equipment Failure

Should the inspection reveal failure or malfunction of essential equipment, the mooring shall be delayed until repairs have been carried out.

9.2.8 Cargo

Prior to commencement of berthing operations, the terminal operations department shall confirm to the pilot that they are ready to receive/discharge the required cargo quantity.

9.3 Arrival

9.3.1 Anchorage on Arrival

As mentioned previously suitable anchorages are available and marked on the Admiralty chart. Anchoring is subject to the harbour masters permission. If permission is not granted the Terminal will normally request that subject to safe navigation, the vessel awaits OPL and be within 6 hours steaming time of the pilot station

9.3.2 Berthing on Arrival

If the tanker is to berth on arrival the Master will be advised by the terminal on VHF or more normally through email. The pilot and Mooring Master will board the vessel together. The pilot will advise the time and position of boarding, and on which side to have the pilot ladder rigged.

9.3.3 The Mooring Master will, after he has made his safety and pollution checks, discuss the operational requirements with the Chief Officer, and ensure that the mooring equipment and hose lifting crane is in readiness.

9.3.4 When all is in readiness on board, the Mooring Master will advise the pilot who will advise the Master and the Terminal that the berthing can proceed.

9.3.5 The tug(s) are then called in to render assistance in whatever way is required.

9.4 **Ship Board Preparations**

- 9.4.1 A pilot ladder or accommodation ladder or combination should be made ready on the side advised by the pilot, to allow for embarkation by the mooring crew, who will join the tanker on the approach to the SPM.
- 9.4.2 The Mooring Master should ensure that a good messenger line is made ready on the forecastle deck. It should be minimum 32mm diameter, by 90 metres long approximately. A large hammer and a fire axe should also be available. A good mooring rope should also be available on the forecastle deck.
The Mooring Master will remain on the forecastle head throughout the mooring operation to advise the ships officer on the mooring procedure.
- 9.4.3 Ensure that crane is tested and ready for hose connection and to take on board the ancillary hose connecting equipment.
- 9.4.4 When all is in readiness on board, the Mooring Master shall advise the pilot and the Terminal. When all other checks have been satisfactorily carried out and reported to the Terminal, and when all else is in readiness the Terminal will advise the pilot, and the pilot can proceed with the mooring operation.

9.5 **Mooring Operations**

- 9.5.1 The Mooring Master will be stationed on the bow of the tanker, in radio contact with the pilot and the line boat, to keep the pilot advised on the approach to the buoy and to pass instructions to the line boat.

The approach should be made from the direction in which the tanker can best be handled at very slow speed and can best be held stopped in the water.

The line boat should approach the tanker from the side at the aft end of the forecastle head to avoid having to manoeuvre under the bow or near to a bow thruster if fitted.

- 9.5.2 On the near approach of the tanker to the SPM the line boat will stretch the hawser to be connected, to its full length towards the approaching tanker. The tanker will as soon as possible pass the messenger to the line boat. The line boat will then connect the messenger to the SPM mooring pick up line.

The tanker will then heave on the messenger and recover the SPM mooring until the chafing chain passes through the fairlead to the required position. The chafing chain is then secured to the stopper as quickly as possible.

9.5.4 Precautions

1. Approaching the buoy the tanker should take a course which will pass the SPM, moorings and hose strings so that if it becomes necessary to abort it can be done safely. The buoy should be kept on the port bow so that the pilot can see it at all times.
2. **Vessel use of auto-pilot in and around the terminal:**
All vessels calling on, attending to or are under contract providing support to or at Bantry Bay Terminal will ensure that "Hand Steering" is used when inside a 500 meters radius of the terminal or facility. The use of "auto" pilot inside this radius is prohibited unless permission is given by the terminal. Nothing in this requirement shall prevent the Master from taking such action deemed necessary and prudent, in the ordinary practice of good seamanship, for the safety of the vessel or crew.
3. The tanker's anchors shall not be dropped within the manoeuvring prohibited area except in extreme emergency and only under the direction of the pilot, and in the final approach the anchors must be tight home and secured to prevent accidental release.
4. When winching up the pickup line, care must be taken to ensure that there is always slack in the line. It must not be used to heave the tanker into position, because of the danger to personnel if it comes under tension.
5. During night time mooring, the procedure is the same for daytime mooring but additionally the line boat will use the search light to illuminate the SPM and floating hose.

9.5.5.1.1 Tugs

At least two tugs will be in attendance for tanker operations; one will be made fast to the stern and will assist in turning and speed control during the mooring operation it will remain fast until the vessel departs the SPM on completion of all cargo operations.

On completion of berthing the tug will maintain a constant tension on the hawser and ensure tanker does not ride up on the SPM.

The second tug may be used to assist in the mooring operation, if so it will generally make fast on the starboard bow and assist with heading control for the later stage of the berthing operation. Afterwards it will cast off but remain on standby in the vicinity of the tanker to carry out pollution response and security duties if required

9.6 Hose Connection

9.6.1 Hose Lift

After the tanker is securely moored the Mooring Master and the hose crew attend at the ships manifold to advise and assist the tanker's crew in the hose connection. A ship's officer must be present and actively involved in the operation.

The Mooring Master should instruct the line boat to tow the end of the floating hose string to the tankers side IWO cargo manifold area.

The vessel crew should lower the crane hook to the line boat crew for connecting to the hose lifting chain. The hose should then be lifted out of the water to the tanker rail. The condition of the hose lifting gear components should be examined for damage or poor condition.

9.6.2 Hose Support Chain

Hose connection then proceeds as follows:

The hose should be lifted sufficiently high to enable the hose support chain to be brought on board. The hose is then lifted further to the correct height for connection. The support chain is then secured to the vessel by placing the correct link in the shortening clutch that is secured to one of the vessels bitts. The weight of the hose is transferred to the support chain and the hose slowly lowered into position for connecting to the ship's manifold.

Further adjustment of the hose support chain, if necessary, may only be carried out with the weight of the hose transferred to the lifting chain.

9.6.3 Snubbing Rope

To prevent or control lateral movement in the hose at the tanker's rail, a snubbing rope may be passed around the hose and secured to the tanker's rail. This can be used to assist in the connection.

9.6.4 Connection

When the hose is lowered into position, the blank flange or flushing reducer should be removed and the hose and tanker's manifold flanges aligned so that connection can be made.

9.6.5 Hose Support

When the hose is connected a suitable strop should be connected to the hose and hooked to the crane. The hose is then supported to achieve the best radius configuration. The snubbing rope may be left in position to minimise lateral movement in the hose.

9.6.6 Precautions

During the hose lifting and connection operation, care should be taken to ensure that the weight of the hose string is not taken off the support chain by other than the prescribed lifting gear. In particular, the strop should not be used to take the full weight of the hose string to adjust the support chain.

9.7 **Transfer Operations**

The Pilot/Loading Master is the Terminal representative on board the tanker and is the co-ordinator for all cargo and ballast transfer between the tanker and the terminal.

9.7.1 **Safety Check List**

When the tanker is securely moored and normally while the hose connection is ongoing the Loading master in company with the tankers chief officer (or officer in charge) will complete the ship/shore safety check list and exchange other Key information

9.7.2 **Notice of Readiness**

Before proceeding with the transfer operation the Mooring Master will receive and accept the Notice of Readiness providing that the tanker is in all respects ready to load/discharge at the time tendered.

9.7.3 **Operating Plan**

A cargo plan should be faxed to the terminal with the pre-arrival message. A loading/discharge plan should be agreed between the responsible tanker's officer and the Mooring Master. It is essential that a full understanding between the tanker, the Terminal and the Mooring Master is established before operations commence.

This concerns:

1. Start up procedure
2. Emergency stop procedure
3. Cargo quantities
4. Ballast quantities
5. Transfer rates/times.

9.7.4 **Transfer Start Up**

Transfer operations should not commence until the tanker's duty officer and the Mooring Master are satisfied and have agreed that the hoses are correctly connected and that all necessary valves on board and in the pipeline system have been properly set.

When the Mooring Master has been advised that the terminal and the tanker are ready, the order will be given to commence transfer operations.

9.7.5 Pumping

Pumping should begin slowly until it is verified that the cargo/ballast is reaching the designated tanks and that the entire system is operating satisfactorily. Checks for leaks in the hose system and around the buoy should be made by the line boat.

Pumping rate may be increased to the full agreed rate when it is verified that the system is operating satisfactorily.

The hose connection must be checked frequently. The bolts shall be tightened if necessary but only after stopping pumping operations.

9.7.6 Transfer Monitoring

At frequent regular intervals at least hourly the cargo/ballast transferred quantities should be measured and compared with the measured quantities at the terminal.

The manifold back pressure must also be noted at regular intervals.

Any marked discrepancies between quantities must be investigated immediately.

9.7.7 Completion of Transfer

Upon completion of transfer, it is essential that the ships valves remain open until oil flow has ceased completely. The Mooring Master must wait for confirmation from the terminal before directing that the ships valves be closed.

9.7.8 Precautions During Transfer

1. Tankers will be required to use the "Closed Loading System".
2. A responsible officer and an adequate number of crew shall be on watch on deck to deal with transfer operations and tanker safety.
3. A continuous listening watch it to be kept on the ship/shore VHF designated frequency, or on the hand set supplied by the Terminal.
4. Communications systems shall be maintained and checked frequently.
5. Flow rates and tonnages pumped shall be frequently checked.
6. Excessive trim by the stern is undesirable and must be avoided.
7. Moorings must be constantly monitored by a competent crew member and the hose connections to the manifold checked for tightness.

9.7.9 Conditions Requiring Summary Action

Transfer operations shall not be started, or if started shall be disconnected by either the Mooring Master or the responsible tanker's officer when any of the following conditions arise:

1. During electrical storms, or periods of high winds, all tank openings, cargo valves and valves in the gas line risers shall be closed.

2. If a fire occurs on board or on any craft in close proximity.
3. If insufficient competent personnel are on duty to handle safely the operation in progress.
4. If a spill occurs either on board or at the buoy, or if the cargo hose fails or leaks occur at flanges and connections which cannot be stopped by tightening bolts.
5. In the event of high concentrations of gas accumulating about the deck, loading will either be stopped or the loading rate reduced to ensure that prevailing weather creates the necessary dilution. Particular attention should be paid to this in calm weather.
6. Any other event which in the opinion of the Mooring Master or the responsible vessel's officer constitutes a potential hazard.
7. Failure of I.G. Plant.

9.8 **Hose Flushing**

On completion of both loading and discharging operations the terminal may request that the tanker carry out a hose flush operation. This will involve pumping clean sea water through the vessels cargo manifold area at a minimum rate of 1500m³/hr

9.9 **Disconnecting Hoses**

The disconnection of the hose must be carried out with care. The hose must remain secured to the tanker or the crane at all times until lowered into the sea. Before disconnection the hoses must be depressurised, the manifold valves closed, the hoses flushed and end flanges installed and fully bolted.

To disconnect the hose, transfer the crane hook from the strop to the hose lifting chain at the manifold flange. Care should be taken to stop the hose moving when the bolts are removed. When disconnected, the hose should be blanked off using a blind flange or the flushing reducer and a good quality gasket. The flange must be properly tightened and fully bolted to prevent oil leakage when the hose string is later pressurised.

When the blind flange or flushing reducer is secure, the hose should be slowly lifted to the vertical. When the hose hangs vertically and the crane has the full weight, the snubbing rope and supporting chain may be disconnected. The hose should be lowered slowly to the water to allow personnel on the support vessel to secure the hose to their vessel and then disconnect it from the ships crane.

9.10 **Unmooring**

9.10.1 **Equipment Check**

Before unmooring the Mooring Master should check the condition of the pickup rope, the chafe chain and the connection between them. Any worn parts should be replaced as necessary.

9.10.2 Ancillary Equipment

All unnecessary ancillary equipment should be loaded onto the line boat and non essential personnel should disembark.

9.10.3 Letting Go

The pick up line should be taken to the winch and the weight taken off the chafing chain. If necessary this can be helped by use of the engine with a short ahead movement. The chafing chain is released and lowered slowly to the water and the pick up line is then fully paid out.

The pilot who should be kept informed of progress by the Mooring Master, must ensure that no weight, other than the weight of the chafing chain, comes on the pickup line. This may necessitate the use of the engine. The second mooring is let go in the same way. The tanker then moves slowly astern and clear of the tugs, hawsers and hoses.

10.0 **SAFETY**

10.1 Operations at this terminal are carried out in strict compliance with the Terminal Safety Regulations, the "Dangerous Substances (Oil Jetties) Regulations 1979" and the guidelines provided in the "International Safety guide for Tankers and Terminals".

10.2 **Pilotage**

All manoeuvring of tankers within the SPM operating area is carried out only with the advice of the authorised Pilot provided. The Master shall remain solely responsible on behalf of the tanker, for the safety and proper manoeuvring of the vessel.

10.3 **Tanker Manoeuvrability**

Tankers must arrive with sufficient ballast or cargo to be adequately trimmed for safe berthing and must maintain an adequate displacement and trim throughout the "in port" operation and be ready for immediate departure and maintain seagoing stability conditions at all times.

10.4 **Inert Gas**

All tankers shall be equipped with an efficient Inert Gas System and the cargo tanks must be properly inerted and must remain so throughout each operation until the tanker departs the SPM. The Mooring Master will continually monitor the situation.

10.5 **Crude Oil Washing (COW)**

Crude Oil Washing is permitted at this terminal. It must however be carried out only after permission has been granted by the terminal and after the condition for a safe operation have been met to the satisfaction of the Mooring Master. These conditions, which appear at Appendix No. 9 will continue to be monitored by the Mooring Master throughout the Crude Oil Washing.

10.6 **Loading Instrumentation**

All tankers shall be equipped with instruments and appropriate manuals to calculate and predict the stresses on the tankers structure. Before pumping commences the Mooring Master must be satisfied that these stress values are within safe limits and continue to remain so throughout the whole operation.

10.7 **Safety Equipment**

Only equipment which is certified as intrinsically safe will be permitted to be used during operations. The Terminal will provide intrinsically safe VHF 'Walkie Talkies' with sufficient back up batteries and battery charger to ensure that communications between the terminal and the tanker are maintained at all times.

10.8 **Communications Breakdown**

In the event that communication between the tanker and the Terminal is totally lost the operation shall be immediately stopped and not resumed until satisfactory communications are re-established. To prevent interference by other users a dedicated channel is allocated for the purpose of cargo and ballast transfer.

10.9 **Loading/Unloading Plan**

The Mooring Master and the responsible officer shall agree in writing, the handling procedures to be following including loading or unloading rates, action to be taken in the event of an emergency and will complete and sign the safety check list.

10.10 **Safety Check List**

The Mooring Master in company with the responsible ships officer will, before cargo operations commence, carry out a check of items in accordance with the "Safety Check List" and will complete and sign the safety check list. There is a requirement for these checks to be repeated at regular intervals during operations.

10.11 **Movement Alongside Tanker**

During operations, movement of craft alongside the tanker is prohibited unless approval has been given by the Mooring Master and agreed by the Master. The Mooring Master will satisfy himself as to the suitability of the craft.

10.12 **Repair Work**

Main engine repairs are forbidden at the SPM. All tankers must be maintained in a state of readiness for vacating the berth at immediate notice. Therefore no repairs which would prevent or delay this departure will be permitted. The testing of electrical equipment including radar, radio and domestic electrical equipment is prohibited, unless the permission of the Mooring Master is granted. Tank cleaning or gas freeing is prohibited unless approved by the Pollution Officer. Chipping and scraping on deck or hull is also prohibited.

10.13 **Prevention of Sparking and Funnel Smoking**

Soot blowing is prohibited, and immediate steps must be taken to eliminate sparking and excessive funnel smoking.

10.14 **Smoking**

Smoking on board the tanker is permitted ONLY in designated areas within the accommodation, agreed by the Master and Mooring Master.

10.15 **Fire Fighting**

Responsibility for fire fighting aboard the tanker rests with the Master. The prime effort of the tanker's emergency squad should be directed against the fire. Other qualified personnel must be designated to attend to shutting down the transfer operation, and attending to mooring, and preparing to depart from the SPM if necessary.

The tug and other craft form an integral part of the contingency plan and will act in accordance with the instructions of the Pilot/Mooring Master.

The Pilot/Mooring Master will give frequent up to date situation reports to the Terminal.

For specific details refer to the terminal Marine Fire Fighting and Emergency Evacuation Plan.

10.16 **Fire Fighting Equipment**

The tanker's firefighting equipment including main and emergency fire pumps shall be ready for immediate use and pressure maintained on the fire main. Two fire hoses with jet/fog nozzles shall be connected to the fire main and ready for use forward and aft of the port side manifold. Foam monitors should be directed towards the manifold ready for use. Portable fire extinguishers are required near the manifold.

10.17 **Emergency Towing Wires**

There is no need to rig conventional fire wires. The Stern tug remains fast throughout all operations.

10.18 **Means of Escape**

An accommodation ladder should be rigged and maintained at a convenient level above the water on the stbd side of the vessel

1.0 **POLLUTION**

The terminal adheres to a strict regime concerning the transfer of cargo and ballast to and from the tanker and the terminal.

To achieve the aim of preventing pollution of the bay by oil, stringent checks on operations are ongoing throughout the tanker's stay at the port.

11.1 **The Tanker**

From first arrival to final departure the tanker's activities are monitored and the Mooring Master keeps a watchful eye on operations to ensure that leaks do not occur and that if they do occur, they are promptly stopped and gathered up and controlled as soon as possible.

In combating any pollution incident which may occur, any action taken must comply with the instructions contained in the BBT Oil Spill Contingency Plan.

11.1.1 **Sea Valves**

By way of the pre-arrival message to the tanker the Master is made aware of those requirements. He is requested to close and seal all overboard valves from which oil pollution could emanate. The Mooring Master when he first boards the tanker shall inspect the valves and ensure that they are closed and sealed. If they are not sealed on arrival he shall do so by whatever means practical.

It must be remembered that in large tankers valves may be hydraulically operated and therefore not easily sealed.

11.1.2 **Spill Containment**

The tanker is required to have suitable and adequate materials and equipment at hand on deck ready to deal with any oil leak which may occur on board and all scuppers must be plugged tightly to retain any spilled oil on the deck. Spilled oil

must not be allowed to flow off the deck. Accumulated rainwater should be drained under control.

11.1.3 Precautions against Pollution

At crucial stages in operations, particular care and attention must be paid to good practice and procedures.

- 1) At commencement and completion of cargo loading or discharging.
- 2) At commencement and completion of ballasting or de-ballasting.
- 3) At times of significant trim change.

To eliminate the possibility of pollution, the following steps should be taken:

- 1) All ships side valves are to be checked for integrity. Sea valves are to be closed and sealed by the Mooring Master and opened only in his presence for ballasting requirements. An appropriate notice is to be displayed. At the conclusion of ballasting, sea valves are again closed and sealed.
- 2) Only those valves which are required to be open for the operation which is in progress at any time, shall be open. All others must remain closed.
- 3) All unused manifold openings must be blanked, fully bolted and the valves kept closed.
- 4) The Mooring Master will ensure that both tanker and shore personnel remain alert to their duties. They must constantly check the moorings, the surface hoses, and manifold hose connections, and in case of emergency must be ready to stop pumping immediately.

11.2 The Terminal

On the part of the Terminal, the SPM, and hose strings are inspected before mooring commences and they are frequently patrolled during the transfer operation and after the tanker has left the berth.

11.2.1 Oil Spill Contingency Plan

The Sunoco , BBT Oil Spill Contingency Plan, is designed to assist in any oil spill response activities. To support this the terminal carries adequate approved stocks of containment and recovery equipment, craft and personnel trained in the use of the equipment. Regular testing, training and reviews of the plan are carried out.

11.2.2 Search Lights

The tug and the line boats will be provided with searchlights for the detection of oil spills during the hours of darkness.

2.0 **DOCUMENTATION**

12.1 Documents have been prepared for the purpose of ensuring that a proper exchange of information between a visiting tanker and the terminal is established and that a full understanding of the requirements of both parties exist.

These documents can be divided into two categories namely:

- 1) Operating Documents
- 2) Cargo Documents

Operating Documents

These relate to the tankers entry into the port and are concerned in the main with information exchange and safety checks to ensure a safe and efficient operation.

Cargo Documents

These relate to the custody transfer of oil cargoes loaded or unloaded.

12.2 **Operating Documents**

12.2.1 These consist of:

- 1) The standard Message to Masters which includes the E.C. Tanker Check List.

This check list must be completed by the Master of the Tanker and must be received by the Harbour Master/Terminal before the ship is allowed to enter the port. The form is transmitted by radio or fax.

- 2) Ship/Shore Safety Check List

The check list must be completed by the responsible tanker officer in conjunction with the Mooring Master in accordance with the instructions for completion.

- 3) Conditions of Entry into and Use of Bantry Bay.

This is presented to the Master for his signature by the Pollution Control Officer/Pilot when he boards the tanker.

4) Safety Requirement Letter

Presented to the Master by the Mooring Master.

5) Notice of Protest

Presented to the Master by the Mooring Master if circumstances warrant or vice versa.

12.3 **Cargo Documents**

1. Bill of Lading, Tanker Loading.

This is prepared at the terminal on completion of loading and shore tank measurement. It is then taken to the ship for the Masters signature. It may be forwarded to the consignee either by the Master or by post.

2. Bill of Lading, Tanker Unloading.

For tankers arriving with cargo for discharge, the Agent and surveyor will receive and examine the consignees and Master's Bill of Lading and compare them. He will advise the Terminal if they are in order.

3. Certificate of Quality

This is produced by the laboratory when the cargo is ready for shipment. It accompanies the Bill of Lading.

4. Certificate of Quantity.

5. Tanker Ullage Report.

This is completed by the Independent Cargo Inspector on board after completion of loading or before discharge and ships cargo measurement. It is signed by the Master or chief Officer and attached to the Bill of Lading.

6. Notices of Readiness

This is prepared by the Master and presented to the Pilot/Mooring master for acceptance. The Mooring Master will sign the NOR for "receipt only" provided that the vessel is ready to load at the time tendered and after he has checked with the Terminal.

Note: For different consignees and for different countries of destination, the documentation may vary greatly.

12.4 **Petroleum Inspectors**

Volume measurements of quantities received by Bantry Terminals at the receiving point and of quantities delivered by Bantry Terminals at the delivery point shall be conducted by an independent inspector (nominated by and paid for by the shipper) measuring the quantities at receipt of each shipment.

The shipper or its representatives may be present during the measuring operations. If no witness is present, however, the measurements carried out shall be considered as made by both parties, and the shipper shall accept the figures submitted as measured. The shipper shall be entitled at reasonable times to inspect the pertinent documents of Bantry Terminals Ltd.

13.0 **ACTION IN THE EVENT OF A FIRE**

For specific information refer to the Terminal "Fire fighting and Emergency Evacuation Plan".

13.1 **Firefighting Responsibilities**

Responsibility for fire fighting within the port of Bantry Bay is vested in the County Chief Fire Officer and directed via the Harbour Master on his behalf.

The Harbour Master must be notified immediately by the vessel of any firefighting activities onboard any vessel. All activities must be co-ordinated with the Harbour Master. The Harbour master may intervene as he sees fit to protect the harbour.

The Master of the ship is responsible for firefighting on board a vessel. The Master of the vessel may request firefighting assistance from the port via the Harbour Master.

In case of fire onboard, sound one long blast of the ship's whistle of at least ten seconds duration, supplemented by a continuous sounding of the general alarm system.

In the case of a fire within the terminal, Bantry Terminals will activate a signal consisting of continuous sounding of terminal siren.

13.2 **Emergency escape**

Given the close proximity of the Tanker to the SPM during cargo operations, there is a requirement to have an escape plan in case of any emergency situations developing.

When the pilot and mooring master embarks the vessel they should familiarize themselves with the ships emergency signals and Muster points. They should suggest to the Master that their preferred muster point would be the bridge.

Whilst on the buoy the accommodation ladders should be rigged and available for immediate use, they could then be used in conjunction with the pollution control vessel as the primary means of escape.

If due to the nature of the emergency use of the ships accommodation ladders is not an option then the secondary means of escape will be the vessels lifeboat. With this scenario the Pilots and Mooring Masters will take direction from the vessels crew as they will be more familiar with their own equipment.

13.3 **Firefighting Activities on Board Ship**

The following outlines the actions to be taken by a vessel in the event of a fire onboard while calling at the Bantry SPM:

- (1) Sound the alarm.
- (2) Cease all cargo operations and close all oil transfer valves.
- (3) Fight the fire and prevent the fire from spreading.
- (4) Inform BBT Control VHF 16.
- (5) Inform the Harbour Master VHF 16.
- (6) Standby to disconnect floating hoses.
- (7) Ensure vessel engines are at standby.

- (8) Prepare to vacate the berth if required to do so.
- (9) Prepare to disconnect from the buoy.

13.4 **Bantry Terminals Response to Fire on Board a Tanker**

The following actions will be undertaken by Bantry Terminals in the event of a fire onboard a vessel:

- (1) Sound the terminal alarm.
- (2) Cease all cargo operations and close the ESD valves.
- (3) Contact the vessel involved.
- (4) Standby to assist in the disconnection of the floating hoses.
- (5) Implement the terminal emergency plan.
- (6) Standby to assist the firefighting efforts as requested by the Master of the vessel.
- (7) Inform the other vessels at the jetty and the bunker stations.
- (8) Inform the Harbour Master.

13.5 **Fire on Another Vessel or Onshore**

The following outlines the actions to be taken by a vessel at the SPM in the event of a fire onshore or on another vessel:

- (1) Standby and when instructed.
- (2) Cease all cargo operations and close all oil transfer valves.
- (3) Standby to disconnect floating hoses.
- (4) Prepare to disconnect from the buoy.

13.6 **Bantry Terminals Response to a Fire Ashore**

The following is a brief outline of Bantry Terminals response to a fire ashore and is included for information purposes:

- (1) Sound the alarm.
- (2) Cease all cargo operations and close the ESD valves.
- (3) Fight the fire and prevent the spread of the fire.
- (4) Inform all ships in the vicinity of the terminal.
- (5) Implement the terminal emergency plan.
- (6) Inform emergency services per terminal emergency plan.

14.0 **ACTION IN THE EVENT OF POLLUTION**

14.1 **General**

Pollution control in Bantry Bay is directed by the Port Authority on +353 27 53277.

14.2 **Required Notification**

Every pollution incident will be immediately reported to:

- | | | |
|-----|------------------------------|-----------------------------------|
| (a) | Bantry Terminals Ltd Control | phone +353 2720831 |
| (b) | The Harbour Master | phone +35387 9532777 |
| (c) | Coastguard | phone 999 and request coast guard |

Bantry Terminals Limited will report and implement the Bantry Terminals Oil Spill Contingency Plan. This does not relieve the vessel's Master from his responsibility to report a spill.

14.3 **Bantry Terminal Oil Spill Response Capability**

Bantry Terminal maintains an inventory of oil spill response equipment which is available as a first response to an oil pollution incident. Detailed information on oil pollution response, policy, strategy, operational response, including equipment and resources are given in the Bantry Terminals Oil Spill Contingency Pla

15.0 **EMERGENCY SHUT DOWN SYSTEMS**

15.1 **Marine Breakaway Couplings**

The floating hose string is equipped with a double-acting, marine breakaway coupling which acts as a safe separation point and controlled spill shut off. In the event of a tanker breakout due to a sudden severe shift in the wind, waves or currents, the coupling will separate before hose damage can occur. Also in the event of a high pressure surge caused by a rapid shutdown of valves during transfer, the marine breakaway couplings will close at both ends in a controlled manner to prevent any sudden surges in the system, and preventing any further oil spillage.

15.2 **ESD Valve Closures**

Hydraulically actuated valves are located on the PLEM and also topside on the SPM These (ESD) valves can be closed in the event of any emergency situation occurring. Closure of these valves can be initiated from either the Control Room or onboard the taker through the use of a portable telemetry unit. The ship's Master will be immediately notified of any ESD condition.

Upon activation of the ESD, the system will automatically perform the following functions: close the PLEM, SPM and any other open emergency valves, shutdown the pumps (if running). If the emergency requires a rapid departure of the tanker the emergency departure procedures in Section 6.0 will then be followed.

15.3 **Emergency Shut Down Declaration**

At the time of the pre-arrival/Pre-Mooring Conference, the Emergency Shutdown declaration will be made available by the Mooring Master. This will serve as the outline of topics to discuss during the conference.

