PETROVIETNAM BIENDONG POC	**VIET NAM NATIONAL INDUSTRY – ENERGY GROUP** **BIEN DONG PETROLEUM OPERATING COMPANY** **OPERATIONS PROCEDURE**	Doc. Code: BD-OPS-MNO-P-1001 Revision: 06

BIENDONG POC
MASTER COPY

BIEN DONG TERMINAL REGULATION

Procedure No: BD-OPS-MNO-P-1001

	Prepared by	Approved by
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Signature		

REVISION RECORDS

Rev	Issued date	Revised items (item, pages)	Revised description (briefly)
1	10 Sep.13	Item 5.03	Communication: Update telephone numbers and emails of FSO PTSC BIENDONG 01
	01 Nov.13	Item 3.02	Hai Thach Condensate Specification
2	17 Apr 14	Item 4.05	FSO particulars
		Pape 20/66	VHF working channel: 16 and 10
		Pape 48/66	Figures 3 & 4
3	5 Aug 19		Minimum Standards of acceptance for tankers loading at Bien Dong Terminal to be revised
4	25 Jan 21	Pape 6/65	FSO's OIM duty and responsibilities
		Pape 18/65	Revised weather condition limits. Guide for Load tension limits for Mooring Hawser and Activate Quick Release Hook
			Appendix 4: Ship/Shore Safety Checklist renewed according to ISGTT 6th Edition
5	16 Nov 22	Pape 1	Update with new Company's Logo
6	6th Apr 26		Restructure the content in accordance with OCIMF guidelines. The HSE requirements and emergency response instructions are integrated and included.

TABLE OF CONTENTS

INTRODUCTION

The Conditions of Use, Port Information and Regulations in this booklet have been prepared to provide a general overview of the facilities and operating conditions at the Bien Dong Terminal, located in Blocks 05.2 and 05.3 of the Nam Con Son Basin, approximately 184 nautical miles southeast of Vung Tau Province, offshore Vietnam. BIEN DONG PETROLEUM OPERATING COMPANY (BDPOC) is the Operator of Blocks 05.2 and 05.3, while PTSC PPS is responsible for operating the FSO PTSC BIENDONG 01 (hereinafter referred to as the "Terminal") on behalf of the BDPOC.

This booklet is issued for informational purposes only. It is not intended to replace official publications applicable to the waters and areas described. Although the information contained herein is believed to be accurate at the time of issue, the Company makes no representation or warranty, whether express or implied, regarding its completeness or continued accuracy. The Company accepts no responsibility for any errors, omissions, or consequences arising from the use of this booklet, regardless of the purpose for which it is employed. In particular, the plans, diagrams, and illustrations included are provided solely for reference and must not, under any circumstances, be used for navigational purposes when approaching, departing, or transiting the Terminal area.

These regulations do not relieve Masters of their responsibility to observe normal safety, fire prevention, and security precautions. The Mooring Master is authorized to advise and request Master to adopt additional measures when necessary to ensure safe operations. The Mooring Master also has the authority to suspend condensate transfer operations immediately in the event of any infringement of safety regulations or if any hazardous situation arises.

RECEIPT OF BIEN DONG TERMINAL REGULATIONS

TO: THE MASTER

S/S - M/V: _____ DATE:

A copy of the "BIEN DONG Terminal Regulations" booklet is enclosed for your guidance.

You are requested to study the booklet and to acquaint your crew with the regulations in force at the terminal, which will be strictly enforced throughout your stay in the port. By acknowledging receipt of the booklet, you agree to comply with the provisions of these regulations, including appendices.

You are also required to acknowledge and agree to the Condition of Use contained in Section 2.0 prior to departure from the Pilot Station/Anchorage and commencement of any berthing operation.

The Mooring Master shall remain onboard the vessel throughout its period at berth and is vested with the authority to order the suspension of operations in the event of any contravention of applicable regulations

Bien dong Petroleum Operating Company

By: _____
Title: _____

Acknowledgement:

I acknowledge receipt of "Bien dong Terminal Regulations" booklet.

(Signature)
Master

SS/MV

SECTION 1

DEFINITIONS AND INTERPRETATION

In this booklet, the following words have the following meanings:

"BDPOC"	Bien Dong Petroleum Operating Company which operates the Terminal as Operator under the Petroleum Contract and Operating Agreement in respect of Block 05.2& 05.3 offshore Vietnam and as Lifting supervisor under the Condensate Lifting (LA) Agreement and Joint Marketing Agreement (JMA) in respect to Block 05.2& 05.3 offshore Vietnam.
"DWT"	means total cargo plus bunkers and stores that a ship can carry up to her Plimsoll Line or Marks, here stated in metric tons (tonnes)
"ETA"	means the estimated date and time of arrival at the Terminal and/or Mui Vung Tau or other place safe for Pilot and Lifting Crew embarkation/disembarkation of the Export Tanker in question.
"Export Tanker"	the vessel which requires the Terminal's services to be provided or performed in connection with the lifting of Condensate from the Terminal by that vessel.
"FSO"	means the Floating Storage and Offloading System named FSO PTSC BIENDONG 01.
"FSO OIM"	means the person who is in command and overall responsibility for safety and operation aspects of FSO PTSC BIEN DONG 01 including offtake operations.
Facility Security Officer	PTSC person in charge of security of FSO
"ICS"	means the International Chamber of Shipping.
"Surveyor"	means an independent surveyor appointed by Company or relevant Lifting Parties to observe the lifting operation.
"ISGOTT"	means the International Safety Guide for Oil Tankers and Terminals.
"ISPS Code"	IMO International Ship and Port Security Code
"Lifting supervisor"	The Lifting supervisor is appointed and authorized by the Operator to act on behalf of the Lifting Parties pursuant to the terms and conditions of the Lifting Agreement, responsible for scheduling, monitoring and controlling all Condensate Liftings in accordance with the Contract.
"Lifting Party"	means the Party who has provided a Vessel for a Designated Lifting, the nomination of which has been accepted in accordance with the Block 05.2& 05.3 Lifting Agreement and Joint Marketing Agreement.

"Marine Supervisor"	means the person appointed by the Company to conduct vetting of tankers proposed to call at Bien Dong Terminal, to coordinate of lifting-related activities and complete all lifting documentations.
"MBC"	means the double closure "breakaway coupling" fitted between the 3rd and 4th sections of the floating hose at the Tanker's end, which in the case of mooring failure during loading operation, that coupling is designed to part, sealing off the two (2) hose section by means of self-closing valves, thus prevent the hose rupturing and avoidance of a pollution incident.
"Master"	means the Master of the Export Tanker.
"Mooring Master"	means a person whose services are provided to Export Tanker by the BDPOC and who advises and assist Export Tanker Masters in navigation, maneuvering, pilotage, mooring, loading and unmooring of Export Tanker s at the Bien Dong field.
"OCIMF"	means the Oil Company International Maritime Forum.
"OIM"	means Offshore Installation Manager who bases on PQP and has immediate responsibility for all facilities activities in Bien Dong field.
"PFSO"	Port Facility Security Officer – BDPOC person in charge of terminal security as defined in ISPS Code
"PQP"	Production and Quarter Platform is located within Safety Zone.
"QRH"	mean Quick Release Hook is a special equipment and the foundation of mooring systems. A load cell installed on a QRH can improve mooring safety and efficiency by sensing the tension force on the hawser. In emergency or overload situations, QRH will actively release the hawser to free the tanker.
"Restricted Zone"	Area extending 2 n.m around offshore installation as declared in the Marine Notice issued on August 24, 2011, by the Vietnam Ministry of Transportation/Maritime Department, as shown in Appendix 6 for restricting surface navigation, fishing, anchoring
"Safety Zone"	Area extending 500 meters around offshore installation and prohibits unauthorized entry
"Shall"	a mandatory instruction.
"Should"	a recommended instruction.
"SIRE"	"Ship Inspection Report Program" - OCIMF.
"Standby Vessel"	means the vessel supplied by the Company to fulfill the functions as determined by the Terminal and which may assist in the mooring and offloading operations as the "Towing Vessel"
"SOLAS"	means the International Convention for the Safety of Life at Sea 1974 and its subsequent Protocol.

"STCW"	means the International Convention on Standards of Training, Certification and Watch keeping for Seafarers.
"SWL"	means Safe Working Load, herein expressed in tones.
"Tanker Owners"	means jointly and severally the Export Tanker, its owners, charterers (demise or otherwise), owners of cargo and/or bunkers aboard the Export Tanker, and their respective directors, officers, employees, servants (including Master and Crew), agents and contractors, as applicable.
"Terminal Booklet"	means this Bien Dong Terminal Regulations booklet and all the Appendices and diagrams, which are attached hereto and made a part of the Terminal Booklet, including any amendments, made from time to time.
"Terminal Representative"	BDPOC Marine Specialist or in his absence - BDPOC Mooring Master who stays onboard the Export Tanker during lifting operation.
"Terminal"	means the FSO named PTSC BIENDONG 01 located at the Bien Dong Field.
"UTC"	means Universal Coordinated Time.
"Vessel"	means every description of watercraft, including non-displacement craft, used or capable of being used as means of transportation on water. In specific cases, a vessel coming to the Terminal to load condensate is referred to as the Export Tanker.
"WHP"	Well Head Platform located within the Safety Zone.
"WGS 84"	The world Geodetic System (Revision 1984) – a standard coordinate frame for the earth.

SECTION 2

CONDITIONS OF USE OF BIEN DONG TERMINAL

The "Conditions of Use of Bien Dong Terminal", will be presented to the Master of the Export Tanker and must be signed by him on behalf of himself, the vessel and her Owners, prior to departure from the Pilot Station/Anchorage and commencement of berthing operations.

2.01 All services, facilities and assistance provided by or on behalf of the Company in or in connection with the port, whether or not any charge is made by the Company therefore, are provided subject to all applicable Laws, By-Laws and Harbor Regulations, Safety Regulations and any other requirement of law for the time being in force and to the following further conditions:

a. The services of the Mooring Master(s) are provided on the express understanding and condition that when any Mooring Master furnished by the Company goes on board a vessel for the purpose of assisting such vessel, he becomes for such purposes the servant of the Owner or Charterer of the vessel; and the Company, including its parent Companies, subsidiaries, and affiliates, shall in no way be liable for any damage or personal injury, including death, of any nature whatsoever, incurred by any person whomsoever, in any way connected with, contributed to by, or resulting from the advice or assistance given or for any action taken by such Mooring Master, whether negligent or otherwise, while on board or in the vicinity of such assisted vessel.

b. Similarly, the services of mooring launches and mooring personnel, if any, and furnishing of mooring lines and hosing-up gear are under the supervision and control of the Mooring Master, and the Company, including its parent companies, subsidiaries, and affiliates, shall in no way be liable for any damage or personal injury, including death, of any nature whatsoever, incurred by any persons whomsoever, in any way connected with, contributed to by, or resulting from the performance of these additional services, or furnishing of equipment, whether any of which was negligent or otherwise, during the period in which they are utilized by any vessel.

2.02 In addition, neither the Company, its parent companies, subsidiaries, or affiliates, nor its or their servants, agents or contractors (in whatever capacity they may be acting), shall be in any way whatsoever responsible for (or liable for any contribution with respect to) any loss, personal injury, including death, damage or delay, from whatsoever cause, including the negligence of the Company or its servants, agents, or contractors, arising whether directly or indirectly in consequence of any assistance, advice or instructions whatsoever given or tendered in respect of any vessel, whether by way of tugs, pilotage or berthing services, the provision of navigational facilities, including buoys or other channel markings, or otherwise howsoever. In all circumstances the Master of any vessel shall remain solely responsible on behalf of his Owners for the safety and proper navigation of his vessel.

2.03 While the Company exercises due care to ensure that the berths, premises facilities, property, gear, craft, storage vessel, and equipment provided by the Company are safe and suitable for vessels permitted or invited to use them, no guarantee, express or implied, of such safety or suitability is given by the Company, nor does the Company guarantee that such berths, premises, facilities, property, gear, craft, storage vessel, and equipment are devoid of defects or fit for the service or use to which it is put, and every vessel shall be and remain at the sole risk of the Owners and Masters thereof; and the Company, including its parent companies, subsidiaries, and affiliates, shall not be responsible (or liable for any contribution) with respect to any loss, personal injury, including death, damage, or delays, of any sort whatsoever, that may be sustained whether directly or indirectly by,

or occur to, any vessel or her Owners or her crew or cargo or for any part thereof (whether such cargo is on board or in the course of loading or discharging) by whomsoever and by whatsoever cause such loss, injury, damage, or delay is occasioned, and whether or not it is caused, occasioned, or contributed to, in whole or in part, to any act, neglect, omission or default on the part of the Company, or any servant, agent or contractor of the Company, or by any fault or defect in any berth, premises, facilities, property, gear, craft, storage vessel, or equipment of any sort of the Company or its servants, agents or contractors.

2.04 The Company shall not be liable for any loss, damage, or delay arising directly or indirectly from strikes, lock-outs, labor disputes, or disturbances, regardless of whether the Company, its employees, agents, or contractors are involved.

2.05 If in connection with or by reason of the use by any vessel of any berth, or of any part of the Company's premises, or of any gear or equipment provided by or on behalf of the Company, or of any craft, storage vessel, or of any other facility or property, of any sort whatsoever, belonging to or provided by or on behalf of the Company, any damage or injury is caused to such berth, premises, gear or equipment, craft, storage vessel, or other facility or property, or any third party, or any vessels (its Owners or crew), from whatsoever cause such damage may arise, and irrespective of whether or not such damage has been caused, occasioned or contributed to, in whole or in part, by the negligence of the Company or of its servants, agents or contractors, and irrespective of whether there has been any neglect or default on the part of the vessel or the Owners, in any such event the vessel and the Owners shall hold the Company, its parent companies, subsidiaries and affiliates, harmless from and indemnified without limitation against all such damage and injury and against all loss sustained by the Company, its parent companies, subsidiaries or affiliates, consequent thereon**.**

2.06 The vessel and her Owners shall hold the Company, its parent companies, subsidiaries, and affiliates, and its and their servants, agent and contractors, harmless from and indemnified without limitation against the following whether or not caused, contributed to, or due, in whole or in part, to any act, neglect, omission or default on the part of the Company, its servants, agents or contractors:

a. All and any action, liabilities, claims, damages, costs, awards and expenses arising whether directly or indirectly out of any loss, damage, personal injury, including death, or delay, of whatsoever nature, occasioned to any third party or any vessel (her Owners and crew), including your vessel and her Owners and crew, including but not limited to, that caused or contributed to, whether directly or indirectly, by the vessel or any part thereof or by any substance or material leaking or escaping therefrom or by her Master or crew or by any other servant or agent of the Owners.

b. All or any damage, personal injury, including death, delay or loss, of whatsoever nature, occasioned to the Company, its parent companies, subsidiaries and affiliates, or its or their servants, agents and contractors, arising out of any cause whatsoever including but not limited to, that caused or contributed to, whether directly or indirectly, by the vessel or any part thereof or by any substance or material leaking or escaping therefrom or by her Master or crew or by any other servant or agent of the Owners.

2.07 <u>Sinking, Grounding, and Obstructions to Navigation</u>

Should any Vessel or craft sink or become an obstruction in any part of the port or approaches thereto, or the area of the submarine pipeline, the Company shall be empowered and shall have the right to take any steps it may deem necessary to remove the obstruction without notice to Owners.

All expenses for such removal shall be borne by the vessel or craft and/or by those owning it at the

time of the accident, and the Company shall be entitled to reimbursement by them for any such expenses incurred by it.

2.08 Pollution

For any condensate pollution caused by the vessel, her master or crew, the Vessel and her Owners shall protect, defend, indemnify and hold harmless the Company from and against any loss, damage, liability, suit, claim or expense arising therefrom except where said condensate pollution is caused by the negligence of the Company, or their subcontractors or their employees. The Mooring Master may suspend operations or may unberth any Vessel, if there is suspicion that the Vessel is causing condensate pollution. Any time lost as a result of suspicion, delay or unberthing arising from an condensate spill incident attributable to the Vessel, shall not count as used laytime.

2.09 Laws and Arbitration

a. The Parties shall use all reasonable efforts to settle amicably, through negotiations, all differences and disputes related to or arising under this Agreement or the breach, termination or validity thereof.

b. Except with respect to disputes referred to an Expert or provided in sub-clause 2.09(e) below, in the event such differences or disputes cannot be settled through amicable negotiations within ninety days (90) of any Party's issuance of notice of a dispute, and any of the Parties to this Agreement are involved in such disputes, such differences or disputes shall be finally settled by arbitration before three (3) arbitrators. The Parties on either side of the dispute shall each appoint an arbitrator and the two arbitrators so appointed shall appoint a third arbitrator by mutual agreement who shall act as chairman of the tribunal; provided, however, that in the event the two Party-appointed arbitrators cannot agree to the appointment of a third arbitrator within thirty (30) days of the appointment of the second of the Party-appointed arbitrators, the chairman of the tribunal shall be appointed by the Chairman of the International Chamber of Commerce in Paris, France. The arbitrators shall act in accordance with the Rules of Conciliation and Arbitration of the International Chamber of Commerce. The place of arbitration shall be in Singapore. Any award of the arbitrators shall be final and binding.

c. For purposes of arbitration, this Agreement shall be construed and interpreted in accordance with the laws of Singapore without regard to Singapore's conflict of law rules. The arbitral proceedings shall be conducted in the English language, the arbitrators shall render their award in the English language and the English language version of this Agreement shall be referred to in construing and interpreting this Agreement.

d. Prior to the commencement of the arbitral proceedings, the Parties and the arbitrators shall be used their best efforts to establish a time schedule which shall provide for the rendering of an award within no more than eighteen (18) months of the commencement of the arbitral proceedings.

e. Where a dispute arises as to matters relating to quality, quantity, or in the event of there being any other dispute between the Parties, or among any of them, and all the Parties in dispute agree that such dispute may be settled by utilising the services of an Independent Expert, such disputes shall be submitted for determination by an Independent Expert, and any Party may do so by written notice to all Parties stating the matter for determination in reasonable detail. “Independent Expert” means a suitably qualified expert having no direct or personal interest in the outcome of the decision he is requested to make and being appointed by agreement of the disputing Parties, or failing agreement, being appointed by the President of the Institute of Petroleum of the United Kingdom. The language of choice shall be English. The place of such expert determination shall be decided by a majority of the Parties in dispute. The Independent Expert shall be requested to give his decision as promptly as practicable. The Parties shall do everything reasonably requested by the Independent Expert to assist him to reach a decision. The Independent Expert shall act as an expert and not as an arbitrator and his decision shall be final and binding on the Parties in the absence of manifest error. The costs and expenses of the Independent Expert shall be for the account of the Party against whom the matter is decided.

f. All notices to be given in connection with the arbitration shall be in writing.

2.10 Execution by Master

It is a requirement hereof that the Master or other person issuing Notice of Readiness sign a copy of these "Conditions of Use", on behalf of the Owners and/or Charterers of the Vessel. In the event that such "Conditions of Use" are not so signed then the Company will be under no obligation whatsoever to perform or provide any service or services referred to in these conditions, or elsewhere.

EXECUTED as an agreement on this day .....

ACCEPTED by the Master for and on behalf of the Vessel Owners

ACKNOWLEDGED by the Terminal Representative for and on behalf of BDPOC

SECTION 3

EMERGENCY PROCEDURE

This section defines the responsibilities, communication flow, and response actions to be taken during emergency situations involving the Bien Dong Terminal, FSO, Export Tanker, and offshore support vessels.

3.1 General Responsibilities

- Each Facility shall maintain an Emergency Response Plan coordinated with the Emergency Control Center (ECC) at the BDPOC Office, Ho Chi Minh City. Shore-based emergency support shall be initiated and controlled in accordance with the approved Emergency Response Plan.
- The Vessel Master retains ultimate responsibility for the safety of the vessel, crew, and any person on board.
- The Facility Person-in-Charge (PIC) retains ultimate responsibility for the safety of the Facility and its personnel.

3.2 Emergency Notification and Reporting

3.2.1 Facility Emergency

a) The Mooring Master shall immediately inform the Vessel Master of the emergency.
b) The Mooring Master shall advise the Vessel Master on required immediate actions.

3.2.2 Vessel Emergency

a) The Vessel Master shall immediately inform the Mooring Master of the emergency and actions taken.
b) The Mooring Master shall promptly notify the Facility PIC.

3.3 Emergency Coordination

3.3.1 The Mooring Master shall coordinate all emergency actions with:

a) Vessel Master; and
b) Facility PIC (OIM or Terminal Representative).

3.3.2 Each PIC retains legal responsibility for their respective Facility and personnel at all times.

3.4 Shipboard Contingencies

3.4.1 The Export Tanker Master and Mooring Master shall jointly agree on actions to be taken in the event of:

a) Fire on the Export Tanker; or
b) Emergency at Bien Dong Terminal.

3.4.2 The Export Tanker Master shall provide the Mooring Master with the vessel's Emergency Organization and Contingency Plan.

3.4.3 The Export Tanker Master shall immediately notify the Bien Dong Terminal CCR of all shipboard emergencies.

3.5 Emergency Shutdown (ESD) Condensate Transfer and Disconnection Guidelines

In case of hawser failure, hose defect, AHTS failure, collision, or hazardous condition, emergency shutdown and/or disconnection shall be executed as directed by the Mooring Master and CCR Operator.

3.5.1 Emergency Shutdown (ESD) Condensate Transfer

Manual communication initiating ESD from the FSO's CCR shall be tested prior to commencement of offloading. On activation of ESD:

a) FSO cargo pumps stop automatically.
b) EXPORT TANKER manifold valves and hose-end butterfly valve close.
c) CCR Operator shall close all relevant FSO valves.

3.5.2 Emergency Disconnection Cargo hose and Hawser

Depending on severity, the following actions may be applied:

a) Stop cargo transfer, remain moored with hose connected.
b) Stop cargo transfer, remain moored with hose disconnected.
c) Stop cargo transfer, disconnect hose and hawser, and clear EXPORT TANKER from FSO.

3.6 Fire or Explosion Response

3.6.1 Immediate Actions

a) Stop all cargo transfer operations.
b) Activate manual ESD and confirm cargo transfer has ceased.
c) Disconnect hose and release moorings as directed.
d) Clear vessel from FSO/terminal area under own power or with tug/AHTS assistance.

3.6.2. Fire on FSO

a) Cease cargo transfer immediately.
b) Release EXPORT TANKER from tandem mooring as soon as practicable.
c) EXPORT TANKER to clear the area with OSV support if required.

3.6.3 Fire on EXPORT TANKER

a) Sound general alarm and continuous whistle blast.
b) Keep main engines ready for immediate maneuvering.
c) Cease all cargo operations immediately.
d) Firefighting operations remain the sole responsibility of the EXPORT TANKER .

3.6.4 Firefighting Readiness

a) Two fire hoses shall be rigged and tested.
b) Two fire monitors shall be positioned and ready near the manifold.
c) Two portable dry chemical extinguishers shall be positioned nearby.

3.7 Blackout Scenarios

3.7.1 FSO Blackout

a) Stop cargo export immediately.
b) Establish backup communications.
c) Assess the need for emergency unmooring.

3.7.2 EXPORT TANKER Blackout

a) Stop cargo transfer immediately.
b) AHTS shall maintain vessel position.
c) If blackout duration is less than 3 hours, the hose may remain connected.

d) If blackout exceeds 3 hours, disconnect hose, unmoor, and tow the vessel clear.

3.7.3 AHTS Failure or Blackout

a) Suspend cargo export immediately.
b) Use EXPORT TANKER engines astern if required to maintain position.
c) Request additional assistance promptly.
d) If blackout exceeds 30 minutes or risk increases, disconnect hose and unmoor.

3.8 Mooring Hawser and Hose Failure

- Excessive hawser tension exceeding 90 tons shall trigger an alarm in the CCR.
- Hawser failure requires immediate hose disconnection and vessel departure.
- Mooring Break Coupler (MBC) parts at approximately 35 tons axial load.
- EXPORT TANKER and AHTS shall stand-by outside the 500 m exclusion zone.
- Hose failure shall be treated as a pollution incident.

3.9 Pollution Response

3.9.1 Spill from EXPORT TANKER

a) Implement the EXPORT TANKER SOPEP.
b) Cease cargo transfer immediately.
c) Inform the OIM without delay.
d) EXPORT TANKER Owner shall be responsible for spill response and associated costs.
e) Use of dispersants requires authorization from BDPOC Incident Command.

3.9.2 Spill External to EXPORT TANKER

Export Tanker shall report spill size, direction, wind, and current to the Mooring Master and Terminal.

3.10 Communications Failure

- Suspend all berthing, unberthing, and cargo operations immediately.
- Continuous whistle sounding shall indicate communication failure.
- Cargo operations shall remain suspended until VHF communication is restored.
- If time and conditions permit, conduct normal hose release and unmooring procedures.

SECTION 4

HEALTH, SAFETY and SECUTITY REQUIREMENTS

4.1 Compliance with ISGEXPORT TANKER

All Export Tanker operations at Bien Dong Terminal shall comply with the *International Safety Guide for Oil Tankers and Terminals (ISGOTT), Sixth Edition*.

Bien Dong Terminal Regulations may impose requirements more stringent than ISGOTT in case of conflict, Terminal Regulations prevail.

The Master, Mooring Master, and Terminal Representative shall ensure strict compliance with all applicable safety requirements, including:

- Completion and continuous compliance with FSO / Export Tanker Safety Checklists.
- Continuous availability and correct operation of the Inert Gas System (IGS).
- Safe conduct of tank inspection, gauging, sampling, water dipping, and temperature measurement.
- Effective communication between FSO, Export Tanker, and Terminal.
- Familiarity with and readiness to implement Emergency Procedures.
- Adherence to approved Operating Procedures and Fire Precautions.
- Compliance with cargo transfer and deballasting conditions.
- Strict control of smoking, matches, lighters, and ignition sources.
- Safe use of electrical and galley equipment.
- Control of tugs, workboats, and other craft within Terminal limits.
- Authorization and control of repair work.
- Proper closure of tank lids, isolation of unused pipeline connections, and monitoring of discharge valves.
- Availability of emergency escape routes.
- Safe operation of radar, satellite communication terminals, CCTV, and cargo tank venting systems.

4.2 Inert Gas System (IGS)

The Export Tanker shall maintain the IGS fully operational and compliant throughout cargo operations. If the IGS is inoperative or defective, the Mooring Master shall suspend cargo operations immediately. Any delay, loss, or cost arising from IGS non-compliance shall be borne solely by the Export Tanker.

Under no circumstances shall a vessel with an inoperative IGS conduct cargo operations or remain alongside the Terminal.

4.3 Security Requirements

Bien Dong Terminal operates in full compliance with the ISPS Code. The Port Facility Security Officer (PFSO), appointed by BDPOC, holds overall responsibility for Terminal security. A Facility

Security Officer is permanently stationed on board the FSO and acts as primary contact for the Export Tanker Ship Security Officer (SSO).

The Export Tanker shall implement ISPS Code measures including access control, restricted areas, control of ship's stores, and monitoring systems. Security levels shall not be lower than those required by Bien Dong Terminal.

The Terminal Representative (qualified PFSO) shall liaise with the FSO and Export Tanker to support implementation. If the Export Tanker cannot maintain the agreed security level, the Master shall notify the Terminal Representative immediately.

BDPOC PFSO shall advise all vessels of any change in Security Level.

4.4 Pollution Prevention and Environmental Protection

Pollution prevention equipment suitable for minor spills should be available at all times. During loading and deballasting:

- Deck scuppers shall be plugged.
- Manifold drip trays and containment arrangements shall be correctly positioned.
- Accumulated water may be drained only under supervision; scuppers must be re-plugged immediately.

No leakage or spillage shall be permitted overboard. Any incident must be reported immediately to the Mooring Master and FSO.

In case of leakage or spillage:

- Cargo operations shall stop.
- Cause shall be identified and rectified.
- Clean-up shall be completed to the Mooring Master's satisfaction before resuming operations.

Overboard discharges from the IGS scrubber should be monitored; abnormal discoloration must be corrected or operations suspended.

Smoke emissions should be minimized; excessive emissions or soot blowing are prohibited.

Discharge of garbage, slops, or any solid/liquid material overboard is strictly prohibited.

4.5 General Precautions and Emergency Readiness

- Vessels moored at the Terminal shall maintain sufficient officers and crew on watch to respond to emergencies.
- Vessels shall be ready to disconnect hoses, release moorings, and maneuver if required.
- All essential machinery should be maintained in normal operating conditions.
- Repairs affecting safety or maneuverability are prohibited unless authorized.
- All vessels shall comply with EXPORT TANKER fire, pollution, and emergency precautions.

4.6 Contingency Planning

Prior to cargo operations, the Offtake Tanker Master and Mooring Master shall agree on actions in case of:

- Fire on board tanker or Terminal/FSO.
- ➢ Tanker swing toward downstream WHP.
- ➢ Oil spillage.
- ➢ Adverse weather or electrical storms.
- ➢ Static tow failure or tanker riding up on facilities.

- Excessive mooring loads, hawser failure, fishtailing, or loss of safe sector position.
- Loss of power or maneuverability.

The Offtake Tanker Master shall provide a copy of the vessel's emergency response and contingency plans to the Mooring Master.

4.7 Fire Precautions

- A fire wire shall be rigged forward on starboard side and adjusted for draft changes.
- Fire-fighting systems, including main and emergency pumps, shall be ready.
- Fire hoses shall be connected near manifolds.
- At least two dry powder extinguishers (≥12 kg) shall be positioned near the manifold.
- Foam monitors adjacent to the manifold shall be trained toward it.
- Smoking is permitted only in designated areas approved by the Master and Terminal Representative.
- Matches and lighters are prohibited outside designated smoking areas.

4.8 Actions in Case of Fire

- Follow Contingency Plan.
- Sound vessel's general alarm.
- Place engines on standby.
- Cease cargo operations and shut manifolds.
- Prepare to disconnect and vacate if required.
- Second support vessel shall stand by for firefighting and rescue.

4.9 Suspension of Operations and Unberthing

Loading/deballasting shall be stopped and vessel unberthed if any condition presents risk to life, environment, or property, including fire, pollution, adverse weather, mooring failure, loss of power, or any unsafe condition as determined by OIM, Mooring Master, or Terminal Representative.

4.10 Drug and Alcohol Policy

- Bien Dong Terminal enforces a Zero Tolerance drug and alcohol policy.
- No alcohol shall be consumed or offered by Export Tanker personnel while at the Terminal.
- Any breach shall result in immediate suspension of operations.
- Penalties under Vietnamese law for drug offenses are severe.

SECTION 5

DESCRIPTION AND OPERATIONAL LIMITS OF BIEN DONG TERMINAL

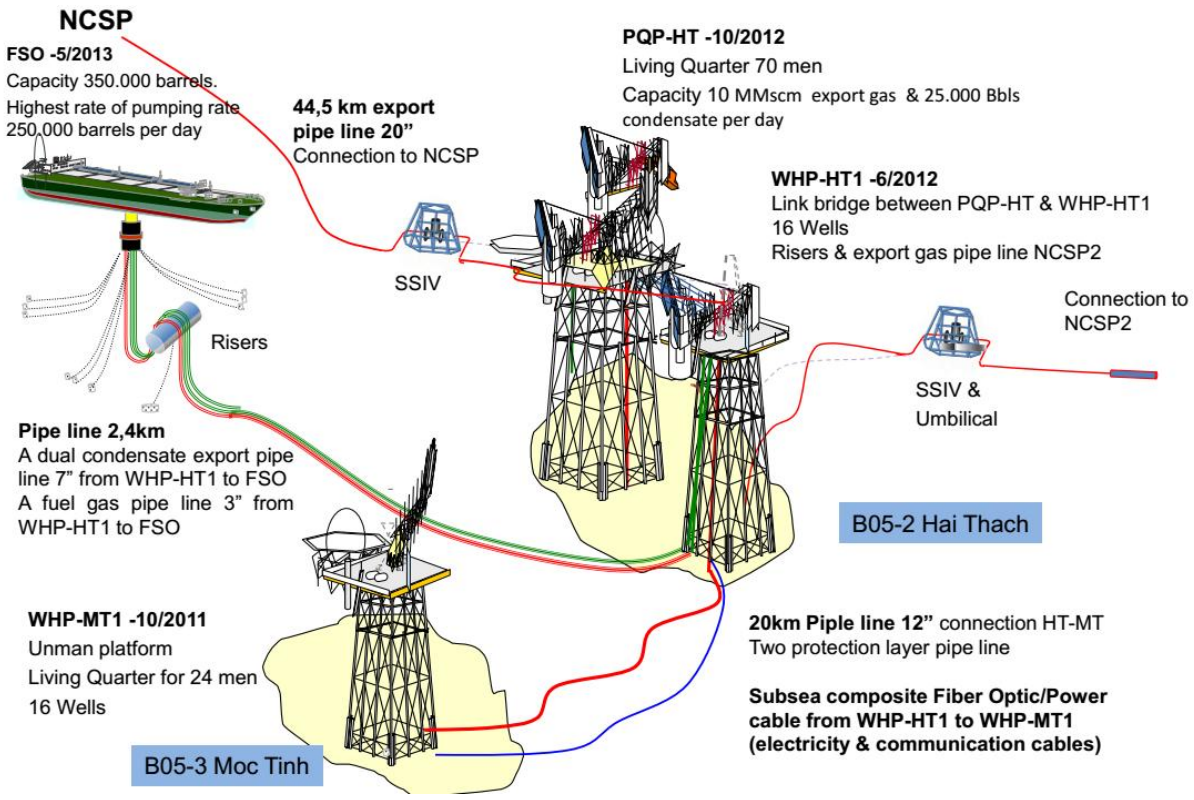
5.1 Description

Block 05.2& 05.3 located in the Nam Con Son Basin offshore Vietnam, 184 Miles (340 Kms) south-east of Vung tau province. The Nam Con Son Basin has several important fields with production from Dai Hung Condensate Field, and Lan Tay Gas Field, as well as further gas and condensate Rong Doi.

Bien dong development will be comprised of the following:

- A Floating Production Storage and Offloading (FSO) system.
- A Production and Quarter Platform (PQP).
- The Well Head Platforms (WHP-HT and WHP-MT)
- A Subsea Pipeline End Manifold (PLEM)
- Subsea electrical power cables and control system
- Infield flowlines

Associated gas will be separated on the PQP. The separated gas will be delivered to the Nam Con Son pipeline through the sub-sea pipeline, and Condensate will be piped through the infield and flexible risers to the FSO and to be stored and offload from the FSO. The FSO is located approximately 2,2km NW from the PQP.



The facilities of HT-MT field (as appearing in field's layout in paper above) are located in the following coordinates (in WGS 84):

WHP-MT 1	07° 55’46.68” N 108° 47’ 31.02” E
WHP-HT 1	08° 02’34.52” N 108° 55’ 40.69” E
PQP-HT	08° 02’38.92” N 108° 55’ 40.96” E
FSO-PTSC BIENDONG 01	08° 03’ 02.31 N 108° 54’ 30.61” E

5.2 Terminal Limits

The HT- MT field is surrounded by a Marine Exclusion Zone which is limited by the lines connecting the following points (see MEZ in the attached in next paper) appendix 1 on the). BDPOC as the Field’s Operator is responsible for ensuring navigational safety and pollution prevention in the HT-MT field’s MEZ.

A (8°05’02.59”N-108°53’38.82”E)

B (8°05’03.33”N-108°56’4.69”E)

C (8°02’30.32”N-108°58’44.31”E)

D (7°53’06.73”N-108°47’25.58”E)

E (7°55’41.15”N-108°44’38.14”E)

Noted: Anchoring within the terminal limits is strictly prohibited.

Safety Zones: There are Safety Zones established:

- A prohibited area has been established bounded within a 500-meter radius from a line joining the above positions
- 04 areas formed by extending 500m from outer edges of PQP/WHPs and FSO. Vessels shall not enter these areas without a Mooring Master on board.

Restricted Zones:

There are 04 Restricted Zones with radius of 02 NM surrounding PQP/WHPs and FSO. Within a restricted zone, anchoring of vessels is strictly prohibited.

5.3 Pilot embarking/disembarking area, Anchorage area

In case of weather permitting, the vessel (s) is requested to call to below position for embarking/disembarking Pilot and lifting group:

Latitude: 08° 05’ 10” N
Longitude: 108° 52’ 22” E

In case of rough sea, the vessel (s) is requested to deviate to off Vung tau Pilot Station as below position for embarking/disembarking Pilot and lifting group:

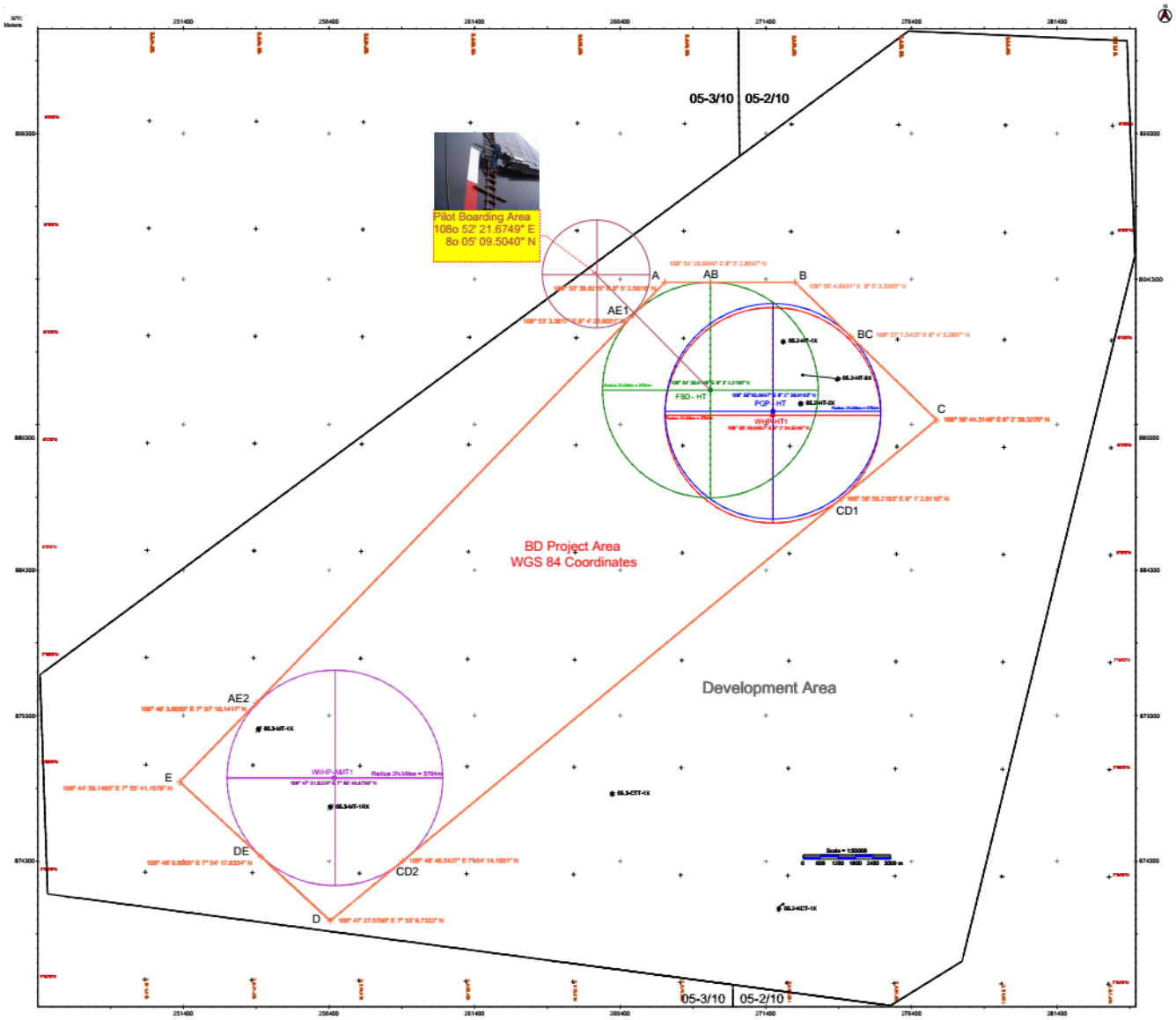
Latitude: 10° 16’ 00” N
Longitude: 107° 05’ 00” E

Anchorage Area:

For tankers requesting to anchor, the recommended area is located 03 NM north-west of the FSO PTSC BIENDONG01 and is centered on the following position:

Latitude: 08° 05’ 10” N
Longitude: 108° 52’ 22” E

This position represents the center of a circle with a radius of 1 nautical mile. Holding/anchoring ground within this predetermined area is considered good. However, due to the sea water depth around the area is approximately 130 m, the weather condition and safety precautions, therefore, should be considered very carefully by Master of Export Tanker whenever make the decision on bringing his vessel to anchor.



HT – MT Field’s Marine Exclusion Zone

5.4 Aids To Navigation

The WHPs, PQP and FSO are provided with navigation lights Morse “U” with specification in full compliance with IALA (International Association of Lighthouse Authorities) recommendations for offshore installation.

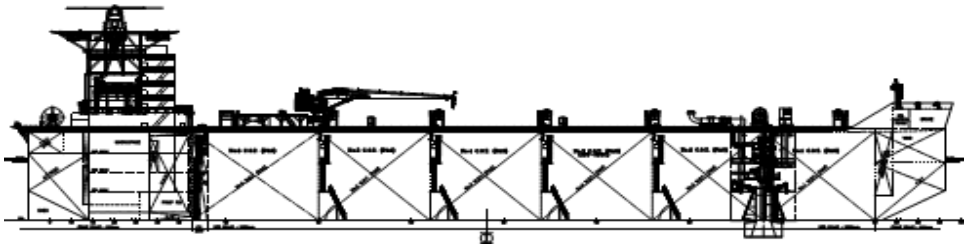
5.5 FSO'S brief description & particulars

FSO is a double sided single bottomed hull, moored by an internal turret located at the bow with a 9-point chain mooring system.

FSO's cargo storage area: consist of 6 pairs of cargo tanks and 2 slop tanks and 6 pairs of segregated water ballast tanks.

A helideck is located on top of accommodation block

General layout and main principal particulars are shown below:



IMO Number:	9633496
Name of Ship:	PTSC BIEN DONG 01
Call Sign:	9VBQ3
Flag:	SINGAPORE
MMSI:	566 806 000
Gross tonnage:	31151
Net tonnage:	14798
DWT:	56828.6
Cargo tank capacity (excl Slop Tanks)	58500 m3
Length Overall (LOA)	171 m
Breadth Moulded	32.4 m
Draught	12.6 m

5.6 Export Tanker Operational Conditions

A/ The offtake tanker should normally only approach within 3nm:

Provided the maximum wind speed, Hs, Hmax, visibility, and FSO motions and yaw rate are within safe limits.

10 min mean wind < 35 knots,
Hs < 3.5 m, Hmax < 5.5m,
Visibility > 1000 m,
FSO heading stable +/- 5 degrees.

Bien Dong Terminal is normally closed when any one of the weather limits is more than above criteria.

Note:

- *The above criteria must be clarified by the equipment (wind indicator and wave radar), which are equipped on PQP-HT, for consideration.* ***Marine Supervisor of Bien Dong POC*** *by his own experience and judgement shall have the final decision subject to the given situation.*

- *If the FSO heading changes more than 15 degrees during approach then tankers may have to abort and recommence approach on the new heading. If either FSO or tanker roll or pitch excessively on the approach heading, then the offtake may have to be postponed avoiding excessive hawser loads on connection.*

B. Safe Tanker Offtake Limits

1) The offtake tanker should normally only continue offtake provided the maximum wind speed, Hs, Hmax, visibility, and FSO motions are within safe limits.

10 min mean wind < 45 knots,
Hs < 4.0 m, Hmax < 7.0m,
Visibility > 100 m
FSO / tanker roll and pitch not leading to snatch loads on hawser.

2) Tandem Hawser Load: As FSO is equipped with the Hawser Tension Monitoring System:

2.1. Loading to be suspended when a single load reaches 90 tonnes force

2.2. Tanker to be unberthed if there are 02 loads of more than 90 tonnes in less than 30 minutes or a single occurrence of a peak tandem hawser tension greater than 120 tonnes force**.**

When the FSO hawser tension meters are not functioning reliably, then the weather conditions to be taken as weather limit for offloading operation.

3) Quick Release Hook (QRH): FSO is equipped with the QRH for the case of emergency cast off. It should be used for:

3.1. Immediate unmooring (by activating QRH) right after cargo hose to be disconnected.

3.2. Activate QRH then Marine Breakaway Coupling (MBC) if required to avoid imminent collision whenever tanker be moved to unsafe offtake sector (refer appendix 3)**.**

Note that above criteria are for recommendation and reference only, FSO's OIM by his own experience and judgement shall have the final decision subject to the given situation and the agreement between him, Terminal Representative and Master of the tanker vessel, under the Mooring Master's advice.

C. Operational limit for In-field Personnel transfer by service boat:

Wave: Significant wave height of 2.0 Meters &
10-minute mean Wind speed: 20 knots.

In case of weather conditions exceeding the above limit for in-field personnel transfer, Export Tanker should be instructed to proceed to Vung Tau Tanker Boarding Ground in position: 10°16'N 107°05'E (4 NM south of Mui Vung Tau point).

Time and cost to be on condensate buyer's/charterer's/shipowner's account.

5.7 Port Conditions

a.Calm:
Extreme conditions with no surface air movement may allow the accumulation of hydrocarbon vapors at deck level. Port will close temporarily. Export Tanker may berth (or remain in the berth if already berthed). Cargo and ballast operations may be suspended.

b. Lightning:

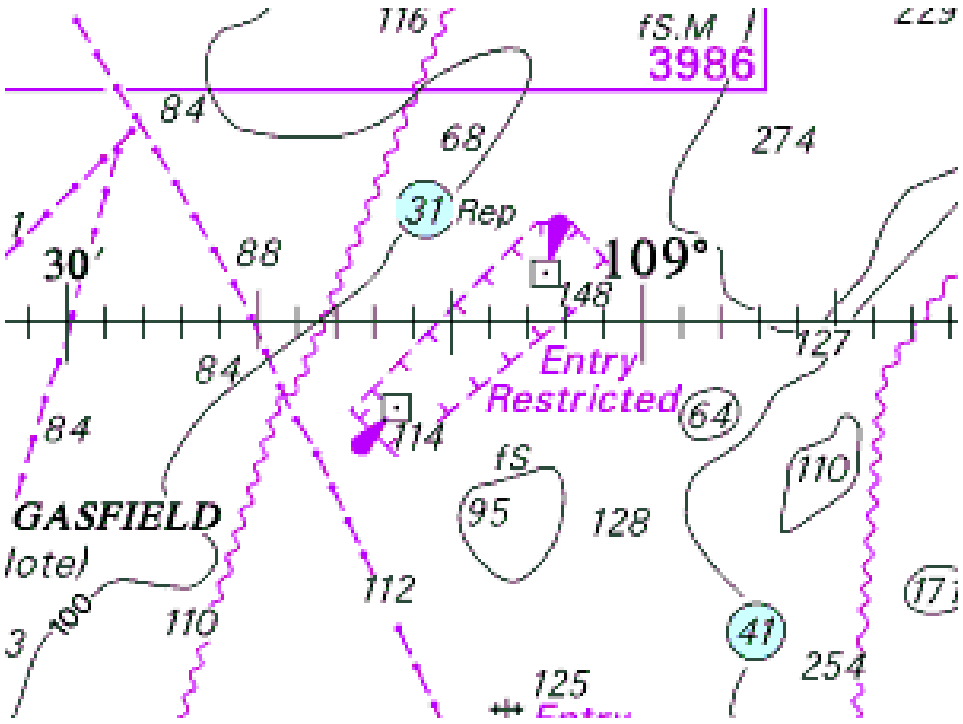
In some rain squall conditions, severe lightning is experienced. Port will close temporarily - Export Tanker may remain in the berth (or undertake berthing operations). All cargo and ballast operations will cease.

c.Darkness:

Port will normally be closed from *16.00 hrs until 06.00 hrs during the hours of darkness*. Export Tanker s already in the berth by *16.30 hrs* can continue operations and may also unberth at night. Discretion for night mooring will be considered by Facility Manager/OIM and Mooring Master if weather is permitting.

d.Nautical Charts:

British Admiralty (BA) Chart Numbers 3482 for approach Bien Dong Terminal. BA chart number 3986, 1261, 1016 for approaching Vung tau Pilot Station.
The Navigator is referred to published sailing instruction for the area through British Admiralty (BA) China Sea Pilot Volume 1.



(Screen shot: Marine Exclusion Zone and Fixed Facilities of Bien Dong field appearing in chart BA3482)

SECTION 6

GENERAL WEATHER and OCEANOGRAPHIC CONDITIONS

6.1 General

Master and navigating officers are advised to refer to the latest editions of officially published sailing directions for detailed and up-to-date information on winds, tides, currents, and weather conditions applicable to this area, in particular: British Admiralty – China Sea Pilot, Volume 1, Published by the United Kingdom Hydrographic Office (UKHO).

6.2 Climate

The region, influenced by the north-east and south-west monsoonal systems, is subject to seasonal wind shifts. The south-west or summer monsoon period, which extends from May to September, is characterized by prevailing south-westerly winds and high rainfalls (greater than 200 mm/month). The north-east or winter monsoon, from November to February, is a period of predominantly north-east winds and lower rain fall (less than 70 mm/month). During the change from the winter monsoon to the summer monsoon (March to April), winds are variable and rain fall is low (less than 30 mm/month). The minimum air temperature is 21ºC. and maximum 35ºC.

6.3 Winds

Due to its geographical location near the equator, the offshore oil and gas port area in the East Sea (South China Sea) experiences a tropical hot and humid climate throughout the year, strongly influenced by monsoonal activity.
Southwest Monsoon (May–September) During the Southwest Monsoon, southwesterly winds predominate at Beaufort force 4–5, occasionally reaching force 6. Sustained strong winds are uncommon, but thunderstorms and squalls are frequent, producing sudden gusts.

Northeast Monsoon (November–March) The Northeast Monsoon typically develops in late October or early November, with prevailing winds from the north to east at Beaufort force 5–6. Winds often occur in successive spells, alternating between strong periods (occasionally Beaufort force 7–8 or surges up to 50 knots) and calmer intervals not exceeding force 4. December and January are generally the harshest months, with wind speeds around 12 m/s and significant wave heights up to 4 meters. These conditions can affect mooring and lifting operations.

Transitional Periods (April and October) April and October mark the transition between monsoons, characterized by variable and less predictable wind conditions.

Typhoons, Tropical Cyclones, and Tropical Depressions: The East Sea (South China Sea) is affected by approximately 10–12 tropical cyclones and tropical depressions annually, typically occurring between July and January. Typhoons, capable of producing wind speeds exceeding 100 knots, are most likely to develop in the latter months of the year, posing additional risks to marine operations. Although the terminal area is generally not directly exposed to these systems, indirect impacts such as strong winds, high waves, and long-period swells can still be significant and may disrupt offshore activities if not properly managed.

6.4 Waves

Sea and swell conditions in the East Sea (South China Sea) are closely linked to the monsoon regime. Since winds during the Northeast Monsoon (November–March) are stronger than those of the Southwest Monsoon (May–September), the most severe sea and swell conditions occur in

the winter months. During the height of the Northeast Monsoon, seas are generally moderate with occasionally rough conditions, and in December and January about 50% of sea states can be expected to be consistently moderate to rough, with calm seas being rare.

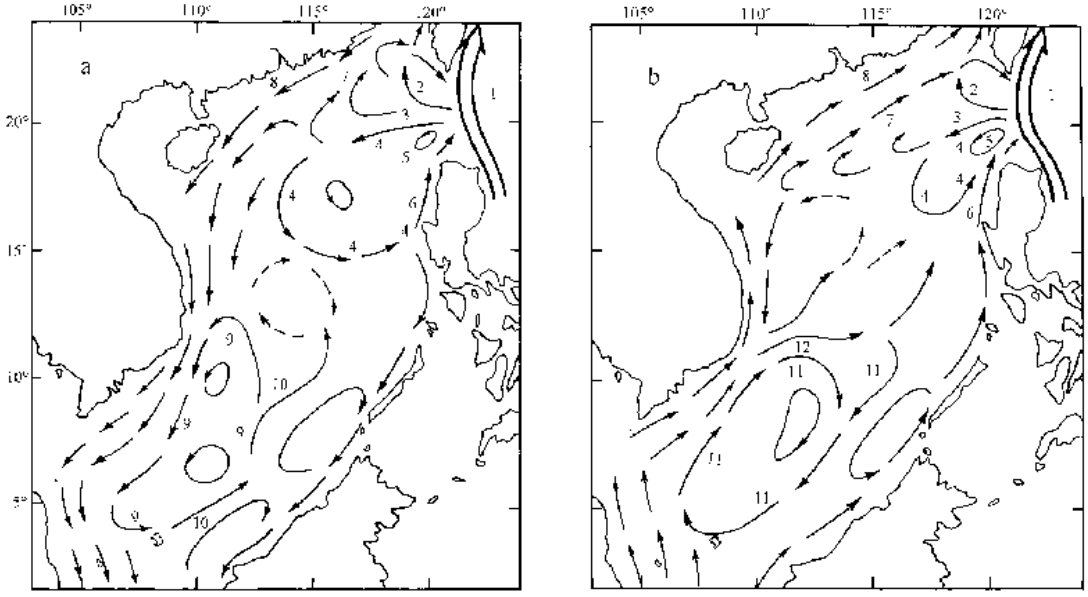
In contrast, during the transitional periods in March/April and October, sea and swell conditions improve significantly, with smooth to slight seas occurring about 80% of the time. Statistical data recorded in the terminal area between 2021 and 2025 show wave heights ranging from approximately 1.2 m to 8.0 m. The predominant wave directions are Northeast and Southwest, corresponding to the prevailing monsoon winds, with the most severe sea states typically observed during December and January of the Northeast Monsoon.

6.5 Currents

Surface currents in the South China Sea are primarily governed by the Northeast and Southwest monsoon winds. During the Northeast Monsoon (November–April), the prevailing current generally sets to the Southwest, while during the Southwest Monsoon (June–September) it typically sets to the Northeast. Surface current speeds may reach up to 3 knots.

In the terminal area, currents are influenced by a combination of tidal and wind-driven effects, with the Northeast Monsoon having a stronger impact on current strength and direction. During monsoon transition periods, currents are generally weaker and more variable, with occasional directional changes due to complex regional circulation and the presence of large-scale eddies.

The figure below illustrates the principal current patterns of the South China Sea under the influence of the monsoon regime. It can be observed that the port area features a rather complex circulation, with a tendency for the formation of large-scale eddies and seasonal variations in the dominant current directions.



Left: Northeast monsoon winds Right: Southwest monsoon winds

6.6 Sea Water Temperature and Salinity

The average seawater temperature is about 26ºC, the minimum being expected during February and maximum during August. The salinity of the China Sea is extremely variable and is in direct contrast to the near uniform sea surface temperature experienced. In general, water masses of low salinity form at the surface and high salinity water of oceanic origin is found at depth. Between

these two masses, a large current to and from such that many regions are alternately filled with waters of different origin resulting in large seasonal variations of salinity.

The sources of low salinity are the mouths of the big rivers; the Mekong in Vietnam is a typical example where the discharge of the river has a greater influence on the salinity than the actual rainfall.

6.7 Tides

The tidal regime in the waters of Southeast Vietnam is predominantly irregular diurnal. Irregular diurnal characteristics gradually weaken, while irregular semi-diurnal tidal characteristics become more pronounced toward nearshore and coastal areas.

SECTION 7

COMMUNICATIONS

During all phases of the operation, it is essential that there is perfect communication between the FSO and the Export Tanker using at least two means of communication in the VHF which must be tested before each transfer operation in order to ensure the continuous and effective maintenance of communications between these units.

Communications must be conducted in Vietnamese or English to avoid misinterpretation. The method for establishing contact between the Export Tanker, the Offshore Support Vessel, if any, and the FSO is the use of VHF channels and the type of information to be transferred is described in this section.

7.1 COMMUNICATION EQUIPMENT

Main radio station: FSO and Export Tanker shall be equipped with GMDSS equipment.

Cargo control station, bridge and Manifold station: During the entire operation, two marine VHF channels must be monitored, channel 16 and the one stipulated by the FSO for the operation, usually channel 12. The export tanker must be equipped with VHF equipment in the CCS, bridge and manifold station, as well as portable devices for all crew members involved in the operation, including a VHF for a possible representative of terminal.

7.2 ESTABLISHING THE COMMUNICATION

Initial contact When appointed for an offloading operation on an FSO, the export tanker must notify the FSO of its arrival forecast by email at 72, 48, 24, and 12 hours before arrival. The vessel shall also inform the BDPOC of its ETA at 48, 24, and 12 hours prior to arrival, and whenever the ETA changes by more than one hour. The 24-hour and 12-hour notifications must additionally be sent directly to the Terminal.

BDPOC contact details for: - Lifting schedule, condensate sale contract issues. - Tanker vetting and offshore lifting activities. - Security issues ***PIC: Mr. Dao Quang Tuan*** Marine / Lifting Supervisor	**FSO (Facility Security officer)** contact details for: - Security issues - Lifting activities. - Other
Phone:(84)-28-38245566 ext:838	Phone: (84)- 254- 3513994
Fax: (84)-28-35202999	Fax: (84)-254- 3513993
Email: tuandq@biendongpoc.vn	Email: oimbiendong01@ptsc.com.vn
	khainh@biendongpoc.vn
	daunv@biendongpoc.vn

FSO COMMUNICATION CHANNELS

FSO Inmarsat Numbers	Phone: 00 870 773163333 Fax: 00870783163064
FSO VSAT Numbers	Fax number: 02543 513993 Telephone: To CCR (02543 513995), To OIM (02543 513994)
VHF/FM Radio	Name of FSO: "PTSC BIENDONG 01" Call sign : "9VBQ3" IMO number: "9633496" Official Number: "398024"

Communication Protocol

At least two communication methods must be established and fully tested before each unloading operation, to ensure that continuous and effective communications can be maintained between the Export Tanker and the FSO in case of failure of any equipment.

Upon arrival, the Master of the Export Tanker shall test the portable communication radios. During unloading operations, strict communication protocols must be observed:

- The FSO must immediately repeat all requests from the Export Tanker upon receipt and confirm once the requested action has been completed.
- Likewise, the Export Tanker watch officer must follow the same procedure when responding to information or actions requested by the FSO.

Working Channel:

When reaching the 10 nautical mile zone, contact must be made between the Export Tanker, the FSO and the lifting support vessel (if any). A VHF channel will be referred to as the "working channel," usually channel 10 VHF

Communication via VHF

Communication between the Export Tanker, the FSO and the lifting support vessel (if any) using VHF must be done during the following phases:

Approach → **R**igging → **C**onnection → **L**oading → **D**isconnect → **O**utput

7.3 TRANSFER OF INFORMATION

Before the operation:

When within the 10-nautical-mile zone, communication between all parties involved must be conducted on the designated working channel. Exchanges should be limited to essential operational information, including:

- Condition of the mooring hawser and hose system
- Coordination during the mooring operation
- Confirmation of the start of offloading
- Loading/unloading details (quantity pumped/received, flow rate, and remaining quantity to be loaded)
- Requests to stop cargo pumps and confirmation of stoppage
- Coordination during disconnection and unmooring
- Readiness to exit
- Request for permission to depart in the proposed direction (EDP)

During the operation

Continuous communication between the Export Tanker, the FSO, and lifting support vessel is critical to safe operations. All technicians must have a clear understanding of the vessel's limitations and the complexity of the operation.

The Export Tanker and FSO should be treated as a single integrated system rather than separate units. Decisions must be made jointly, based on shared analysis of the situation.

Hourly Information Exchange:

The following information must be exchanged every hour during the operation:

Information	Responsible Unit
Loaded quantity, flow rate, and remaining quantity to be loaded	Export Tanker & FSO
Maximum load on hawser during the last hour	FSO

7.4 OUTPUT

The Export Tanker must inform the FSO of its exit when it reaches the 10 nautical mile zone far away from the FSO.

7.5 COATAL CONTACT INFORMATION

The latest IMO Coastal Contact List must be posted in a clearly visible and accessible location on board the Offtake Tanker. The following coastal contacts shall be used in case of emergency during offtake operations:

7.5.1 Ho Chi Minh Port Authority:

- Address: 157 Nguyen Tat Thanh Street, Xom Chieu ward, Hồ Chí Minh City
- Phone: 028.37719125 / 028.37719126, 0254.3512811 (Vung tau Branch)
- Fax: 028.39404828.
- Email: cangvuhhtphcm@cangvuhanghaitphcm.gov.vn
- VHF Chanel 16 & 09

7.5.2 Vietnam Maritime Search and Rescue Co – ordination Centre (VMRCC)

- Address: 11A Lang Ha Street, O Cho Dua ward, Ha Noi
- Phone: +84 243.768.3050 & +84 2543.850.950 (region 3)
- Fax: 243.768.3048 & 02543.810.353(region 3)
- Email: vietnam.mrcc@vinamarine.goc.vn and vungtau.mrcc@vinamarine.gov.vn (region 3)

Note: The Vietnam Maritime Search and Rescue Coordination Center is a humanitarian public service unit under the Vietnam Maritime and Inland Waterways Administration. It performs the function of leading and coordinating search and rescue operations in Vietnam's maritime zones, excluding seaport waters, inland waterways, prohibited areas, and restricted zones at sea. The Center also receives, processes, and transmits maritime security information in accordance with the laws of Vietnam, the International Code for the Security of Ships and Port Facilities, and other relevant legal regulations.

SECTION 8

VESSEL VETTING, QUESTIONAIRE
MINIMUM STANDARDS OF ACCEPTANCE FOR TANKERS LOADING AT BIEN DONG TERMINAL

8.1 VESSEL VETTING:

The Lifting Party, at its own risk and expense, shall arrange for a vessel to accept delivery of condensate. At least ten (10) days prior to the first day of the loading range, the Lifting Party must nominate in writing a tanker capable of loading condensate at Bien Dong Terminal. A completed Bien Dong Vessel Questionnaire (APPENDIX 4) shall be transmitted to the BDPOC Operations Department, attention Marine Supervisor, and one copy must be furnished to the vessel's Master.

The BDPOC vetting process includes technical review of the questionnaire and submitted plans, entry into the vessel database, and management assessment. Within twenty-four hours of receipt of a nomination accompanied by a properly completed questionnaire and required documentation, the Marine Supervisor will advise whether BDPOC accepts or rejects the vessel. Upon arrival, the Terminal Representative and Mooring Master will jointly conduct a pre-lifting inspection to confirm acceptability. This inspection is intended to verify the accuracy of information declared in the Bien Dong Vessel Questionnaire. Final acceptance by BDPOC is a condition precedent before the vessel may approach, berth, and lift condensate.

If particulars in the questionnaire change or become inaccurate, the Master or Owner must promptly notify the Marine Supervisor in writing. Failure to notify may result in delay or rejection, with all costs and time losses borne by the Owner.
In determining whether a vessel is approved for condensate lifting, BDPOC applies the "Vessel Requirements" in line with OCIMF guidance, considering the following criteria:

- Vessel particulars including size, hull type, and mooring equipment.
- Vessel age and condition, supported by current SIRE reports and CAP assessments where applicable.
- Owner and operator performance history, including TMSA assessment, PSC records, casualty/detention history, and terminal feedback.
- Classification society membership, limited to BDPOC's approved list.
- P&I Club membership within the International Group, with full pollution liability coverage.
- Manning and certification, ensuring compliance with STCW and Flag State safe manning requirements, with adequate officer experience and English proficiency.
- Compliance with local and international conventions and regulations, including SOPEP.
- Drug and alcohol policy, consistent with OCIMF guidelines.
- Helicopter winching capability, in accordance with ICS Guide to Helicopter/Ship Operations.
- Flag State record, with consideration of any "targeted flag" designation.

Approval becomes invalid if there is a change of ownership, classification society, P&I Club, technical or operational management, or if defects arise that prevent compliance with acceptance criteria. Incidents, port state detentions, unsatisfactory terminal reports, or other relevant factors may also affect whether a vessel is approved or maintains approved status.

8.2 MINIMUM STANDARDS OF ACCEPTANCE FOR TANKERS

8.2.1 Vessel Particulars

The following guidelines govern vessel acceptance:

- Vessel size of 50,000 – 150,000 DWT (OCIMF category C) is normally acceptable. For vessel size of less than 50,000 DWT but higher than 25,000 DWT (OCIMF category B), acceptance should be subject to case- by - case basis with special pre-arrangement. Export vessel will be moored in tandem at the stern FSO, thereby, shall be fitted with appropriate equipment in accordance with the OCIMF "Recommendations for the Equipment employed in the mooring of ship at SPM" and "Mooring Equipment Guidelines", the equipment shall include a 200 Tons SWL chain stopper designed for use with 76mm chain regardless of the OCIMF category.

- Double Hull Tankers with permanent Gas Detection Systems in ballast and void spaces are preferred over manually operated systems.

- Cargo Hose Handling Crane: Due to severe NE and SW monsoons experienced at the Terminal during period from the beginning of November to the end of March and from the beginning of August to the end of September, the tanker equipped with derrick for hose handling is not accepted.

8.2.2 Vessel Age:

The following guidelines govern vessel acceptance:

- All double hull vessels up to 15 years may be approved on the basis of a current SIRE Report (within last six months) and be found suitable for terminal during a physical inspection by PIC of BDPOC.

- Double hull vessels between 15 up to 19 years of age may be approved on the basis of: (i) a current SIRE Report (within last six months); (ii) Be in possession of a CAP 1 (Condition Assessment Program) for Hull, Machinery and Cargo Systems; (iii) Be found suitable for terminal during a physical inspection by PIC (Mooring Master and/or Marine Supervisor) of BDPOC.

- Double hull vessels between 20 up to 24 years in addition to previous requirements, it is compulsory for such tanker vessels to be inspected by Marine Supervisor of BDPOC or being under re-inspection before being approved.

- Double hull vessels older than 25 years of age are NOT acceptable without any special circumstance.

8.2.3 Vessel owner information/Vessel performance history

The following guidelines govern vessel acceptance:

Owner or Operating (Technical and Safety) Managers are assessed through the OCIMF TMSA program, which gives an overview assessment of the management system and effectiveness of vessel owner/operating manager. Offtake tanker Owners and Operators may be audited to review and evaluate operating policy, personal standards, safety policy, emergency response procedure and vessel maintenance management; and,

Offtake tankers shall be reviewed using the following information although other relevant sources of data or documentation may be utilized e.g. IMO "white pages" for STCW.

- Completed Bien Dong Terminal Vessel Questionnaire
- Valid SIRE Inspection Report
- Physical Inspection by qualified surveyors acceptable to BDPOC
- Port State Control Reports
- Casualty and Detention History

- Terminal Operational Feedback

The Marine Supervisor shall maintain a directory of data and documentation resources that are available. Owners and ship operators may be audited to review and evaluate operating policy, personnel standards, safety policy, emergency response procedures and vessel maintenance management.

Where casualty or detention history documented by a Port State Authority result in a "targeted owner or targeted vessel" or similar designation by that authority, this designation will be considered in the review process.

8.2.4 Classification Society

The following guidelines govern vessel acceptance:

- A list of approved Classification Societies shall be maintained by the Marine Supervisor.
- Enhanced Special Survey results will be reviewed for applicable vessels over 5 years of age.
- A list of acceptable CAP programs shall be maintained by the Marine supervisor.

8.2.5 P & I Club

The following guidelines govern vessel selection:

- The vessel shall be insured with a member of the International Group of P & I Clubs.
- A list of acceptable P & I Clubs shall be maintained by the Marine supervisor. Clubs not included on this list may be reviewed and approved on a case-by-case basis.
- Vessels shall carry the highest standard condensate pollution coverage available under the Rules of the International Group of Protection & Indemnity (P&I) clubs, with a P & I club that is a member of the International Group of P & I Clubs for condensate pollution legal liability up to the maximum amount being offered the International Group of P & I clubs (currently US$ 1 billion).

8.2.6 Manning and certification

The following guidelines govern vessel selection:

- Vessel officers shall hold a current certificate of rank, including STCW endorsement/certificate.
- All officers shall have either Dangerous Cargo Endorsements or the satisfactory training specified in STCW. In addition, the four Senior Officers shall have completed the approved specialized training program and hold an advanced certificate, as per STCW.
- Crewmembers (ratings) shall have sufficient knowledge and experience to carry out their duties and must hold relevant certificates as per STCW.
- Vessel manning and certification shall comply with "minimum" Flag State Safe Manning and Certification requirements. However, in order to avoid that the Master has to keep regular watches, the bridge manning team must consist at least of one Master and three deck officers, this is mandatory requirement and Engine team must consist at least of one Chief Engineer and two Engine Officers.
- All deck officers shall communicate effectively in English and shall be able to communicate effectively with crewmembers in a common language. Multinational crews should only be considered if all are fluent in a common language.
- On board training programs are required, with training manuals available to the crew and inspector.
- A preferred level of experience is to have the Master and Chief Officer to have a combined minimum of 15 years of seagoing experience and a combined minimum of 5 years in rank.

8.2.7 Compliance with local and international conventions and regulations

The following guidelines govern vessel selection:

- Owner must be in compliance with all Local and International Conventions and/or Regulations, as far as can be determined. Vessels must have a Shipboard Oil Pollution Emergency Response Plan (SOPEP).

8.2.8 Drug & Alcohol policy

The following guidelines govern vessel selection:

Owner/operator shall have in effect a Drug and Alcohol Policy, complying with OCIMF "Guidelines for the Control of Drugs and Alcohol Onboard Ship."

8.2.9 Flag state

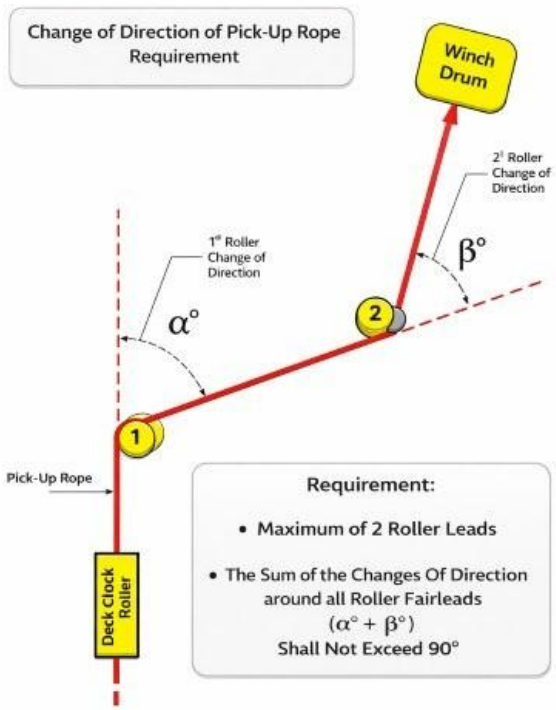
The following guidelines govern vessel selection:

While it is recognized that individual vessels should not be overly burdened by their flag, where casualty or detention history documented by a Port State Authority result in a "targeted flag" designation by that authority, this designation will be considered in the review process.

8.2.10 Helicopter Winching facilities

As weather conditions sometime are not safe for personnel transfer to lifting tanker by standby boat, but conditions are acceptable for berthing operation, helicopter winching would be utilized. Vessel should be equipped with: Winching area marking; communications; firefighting and rescue equipment should be provided and crew should have been trained in accordance with ICS Guide to Helicopter/Ship Operations.

8.2.11 Bow Mooring Arrangement:



Change of direction of pick-up rope requirement:

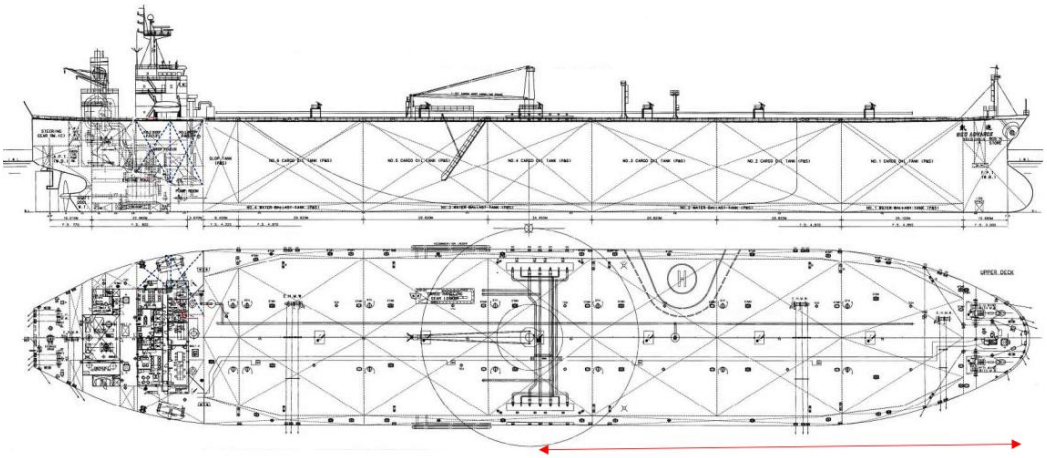
- A maximum of 2 pedestal rollers may be used to guide the mooring pick-up rope to the winch storage drum.

- The angle of change of direction of the pick-up rope shall be minimal. The angle at any individual roller shall not exceed 90 degrees, and the sum of all of the changes of direction around all pedestal rollers shall not exceed 90 degrees (refer sketch beside).

8.2.12 Cargo Manifold Arrangement:

Offtake tanker is to be equipped with a loading manifold in accordance with the OCIMF "Recommendations for Oil Tanker Manifolds and Associated Equipment" latest edition. Flanges are to be prepared to accept twelve (12) inch ANSI 150 flange.

Length between bow to center manifold (BCM) shall be in range: 90m < BCM <125m



8.2.13 Static Tow Arrangement:

Safe Working Load (SWL) of bollard on poop-deck suitable for (escort tug) Static Tow MUST be:

- 25,000 – 49,999 dwt: SWL not less than 100 tonnes;
- 50,000 – 150,000 dwt: SWL not less than 200 tonnes

8.2.14 Compliance with ISPS Code:

- Tanker should possess a valid International Ship Security Certificate.
- Security system, equipment must be in working condition.
- Capability to interface with offshore terminal at required Security Level.
- Full details of CSO (Company Security Officer) and SSO (Ship Security Officer) should be provided in Bien dong Vessel Questionnaire sent to BDPOC Marine Supervisor for the tanker vetting process.

SECTION 9

TERMINAL CHARGES, AGENCY FEES AND TANKER CLEARANCE

Terminal charge:

A nominal charge shall made by BDPOC for berthing/air transportation/infield boat transfer, etc. services supplied by Terminal. This charge is currently US$ 45,000.00 (US Dollars Forty Five Thousand only) per lifting but is subject to periodic review and may be varied.

Other Fee:

Other Port charges, Agency Charges and Clearance formalities will be notified directly to Export Tanker Owners or Charterers by their Shipping Agents

SECTION 10

ARRIVAL PROCEDURES

Vessels will normally be accepted and berthed in chronological order of arrival, provided such vessels have a current nomination for cargo valid at the time of tender, carry clean ballast, if any, and have cargo tanks in a fit condition to receive cargo. Also, they must be in all respects properly equipped, manned and ready to moor. Should berthing be delayed on account of bad weather, vessels will keep their position in line.

10.1 Hours of Operation

The Bien dong Terminal operates 24 hours a day, seven days a week. Tankers will normally be berthed during daylight hours, weather and other circumstances permitting.
Berthing normally starts not later than:

15:00 hrs for period from the November 1 to the February 28, 29
16:00 hrs for period from the March 1 to the October 31

Provided vessel should be in position not more than 02 n.m behind FSO's stern by the above time limits.

Unmooring will be carried out at any hour, weather and other circumstances permitting. The Company will make every effort to moor vessels upon arrival in daylight, weather permitting.

10.2 Notice of Readiness

Arrival time will be considered as the time when the Mooring Master boards the Vessel, or the time the vessel arrives at Mooring Master Boarding Ground or the time the Vessel arrives in the Terminal Designated deep water anchorage, if not berthing immediately (The anchorage area is shown on Appendix 6).

The Terminal Representative will act on behalf of the Company to sign acknowledgement of tanker's Notice of Readiness. Notice of Readiness shall be in the English language.

Notice of Readiness will be accepted between the hours of:

06:00 – 15:00 LMT for November 1 – March 1 period, and
06:00 - 16:00 LMT for March 1 – November 1 period

Provided the Terminal Representative is satisfied that the export vessel is in all respects ready to moor and load. Notice of Readiness will not be accepted during a period when the port is closed on account of adverse weather. Or if not withstanding having tendered the NOR, the vessel is found by terminal not to be ready to load such NOR will be disregarded and buyer shall be obligated to give new NOR when it is fact ready to load.

10.3 Approach to the Anchorage/Mooring Master Boarding Area

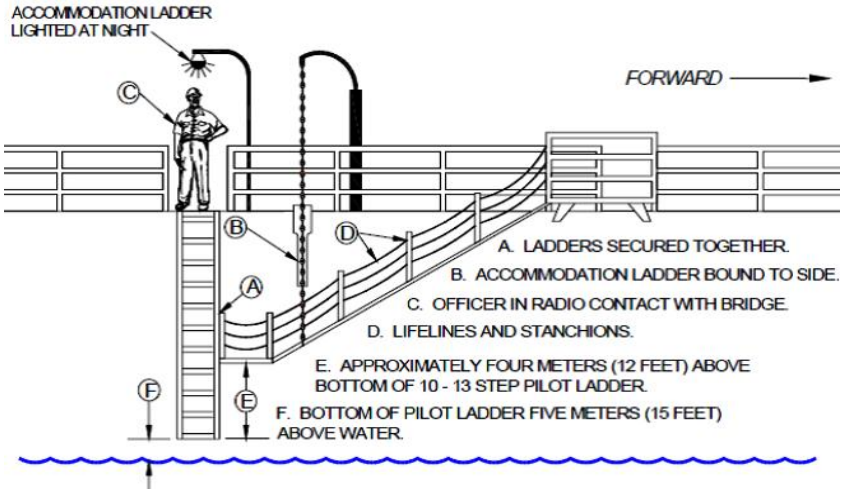
When within VHF communication range, Masters of Export Tanker s should confirm berthing prospects with the Terminal. Should it be necessary to anchor, the vessel should proceed to the recommended tanker anchorage area – see the Appendix 6

Transit time from Terminal to the Mooring Master Boarding Ground and back to the Terminal is classified as sea passage and not be counted as laytime.

10.4 Arrival at Pilot Station/Anchorage

Means of access to the vessel by the Terminal Representative - Mooring Master shall be provided in accordance with the requirements of SOLAS. Early advice will be given by the Bien dong Terminal to confirm the side of the vessel that access should be provided. At night the access area shall be adequately illuminated to provide for the approach and boarding of the Terminal Representative, Mooring Master, Government officials and other Company representatives.

Pilot ladder requirements:
When freeboards in excess of 30 feet (10 meters) accommodation ladder rigger in combination with Pilot ladder are required for all personal transfer (refer picture below).



*Note: Pilot ladder in position, but it is preferable to make final adjustments **up/down** after arrival of "Standby Vessel" being used for personal transfer.*

10.5 Port Closure due to Bad Weather Interruption of Loading/Berthing

Vessels required to leave the Bien dong Terminal area on account of bad weather should keep in contact with the Bien dong Terminal via VHF and or Radio Telephone in order that they may be available when the weather is fit for resumption of operations. The Bien Dong Terminal reserves that right to berth and load vessels out of turn following the return of good weather. The Bien dong Terminal also reserves the right to decline to moor a specific vessel if its condition or facilities are unsafe for mooring or loading even though the Terminal may be open to other vessels. Should a Vessel be rejected for any reason the Bien Dong Terminal will inform the Vessel with written reasons for non-acceptance. The decision of the FSO OIM / BDPOC OIM in consultation with Mooring Master to permit a vessel to berth shall be final.

Foul Weather Mooring/Unmooring: Via a recognized forecasting service and local observation, the Terminal continually monitors weather conditions. In the event of deteriorating weather or the approach of a typhoon, mooring may be delayed or if the Export Tanker is already moored, shut down operations shall be implemented in a timely manner and the Export Tanker unmoored.

10.6 Vietnamese Flag

The national flag of Vietnam shall be prominently displayed by the vessel at all times at Bien dong Terminal.

10.7 Vietnamese Government Regulations

Masters are informed that the following Vietnamese Government Regulations are strictly enforced.

a. Signals to be displayed on Arrival

In accordance with regulations for Vietnamese ports, Quarantine, Pilot and Call Sign flag must be displayed by all vessels approaching Bien dong Terminal. These signals shall be displayed continuously until clearance is granted. The signals are to be in accordance with International Code of Signals 1969

b. Compliance with Vietnamese Laws

The Terminal is located in Vietnamese territorial waters, within a Restricted Zones. Reference to Appendix 6. Sea traffic shall keep a distance of 4 nautical miles or more from the Restricted Zone.

Export Tanker s shall only enter the Restricted Zone at the request or permission of the Terminal.

The Terminal has been classified by the Vietnamese authorities as a “non-seaport” export terminal over which the Vung Tau Port Authority has jurisdiction. Export Tanker s visiting the Terminal shall comply with the provisions of the Vietnamese Maritime Laws, as they apply to the Terminal in this context, and other applicable Vietnamese Laws and regulations. Where there is no specific regulation in Vietnamese Law, Export Tanker s shall follow good International Practices

c. Pilotage

Pilotage is compulsory according to Vietnam Maritime Law. The Vietnamese Pilot shall act as an adviser to the Master while piloting the vessel however overall responsibilities remain under the command of the Master.

SECTION 11

MOORING OPERATIONS

11.1 Mooring Master will board incoming tankers at the anchorage area or another agreed location. The Mooring Master will advise the ship's Master on approach to the Bien Dong Terminal, mooring and unmooring, connection and disconnection of hoses, and all other operations within the Terminal area, including all maneuvering of the tanker. The Master must be on the bridge at all times while the tanker is being maneuvered.

11.2 Support vessels assist in tanker mooring. These are under the direct control and supervision of the Mooring Master.

11.3 Export Tankers due for mooring must have a pilot ladder securely rigged on the side requested by the Mooring Master. Vessels with a freeboard of more than thirty feet shall have an accommodation ladder rigged so that the lower platform is not more than 10 feet above the water level with a short pilot ladder for access to the platform. Upon the approach of the Mooring Master in the service boat, the tanker must provide a good lee on the appropriate side. Export Tankers shall also have their starboard crane rigged and crew on deck standing by.

11.4 The Mooring Master and his assistants, if any, who will advise the tanker crew during mooring and hose connection, will normally board tankers from the service boat which also serves as Static Tow Boat (A Tugboat utilized for keeping the lifting tanker at a safe distance off the FSO stern) throughout the loading operation. Immediately the Mooring Master and his assistant boarded, the service boat will proceed to the Starboard side crane area of the tanker where mooring and hose connection equipment will be lifted aboard. Sufficient crew must be available on deck to transfer the mooring equipment from the crane/derrick area to the forecastle.

The following equipment, provided by the tanker, shall be ready for use when the Mooring Master boards:

On the forecastle head:

(1) 1 buoyant mooring rope, 10-inch circumference.
(2) 2 messenger lines, minimum 3" circumference x 300 feet.
(3) A selection of shackles, wire strops and tools (sledgehammer, crowbar, etc).

On the poop deck:

(1) 2 messenger lines, minimum 3" circumference.
(2) 2 buoyant mooring rope, 10-inch circumference.

When the approach to the terminal commences, the service boat will be in attendance to assist if necessary. Approach to the Bien Dong Terminal (FSO) involves maneuvering within close quarters. It is therefore imperative that all measures are taken to ensure that there is no loss of power or steering during these maneuvers. The Mooring Master will test-run the tanker engines and steering gear before commencing the approach run. Ship's anchors will only be used in case of emergency and upon express permission of the Mooring Master.

11.5 On the final approach (At distance about 1 – 1.5 NM), the Service boat towing pennant will be made fast on the stern bollard of the lifting tanker for static tow purpose. On approaching the berth, the hawser messenger line will be passed from FSO stern by either:

a/ The 24 mm messenger rope (approximately 200 meters) is let float free and drift aft of the FSO stern to a distance of about 300 meters, the lifting tanker crew on the forecastle to use grapnel to pick it up from sea surface then use the windlass or mooring winch to heave in further. Alternatively, by the support vessel will pass the line to the lifting tanker crew.

b/ means of a rocket from a Pneumatic Line Throwing apparatus when tanker bow is at a distance of approximately 150 meters. The Mooring Master will then instruct the crew to heave in the ropes successively until the mooring hawser chafe chain is drawn through a fairlead and in a position to be secured to a chain stopper (At least 3 chafe chain links must be passed beyond the Chain Stopper Tongue/Hinged Bar in “made fast” condition). Or when the current and winds are favorable:

The 80 mm dia. PP pick-up rope is secured to 76 mm chafing chains, which in turn are secured to the 60m finish length 21-inch circ. grommet type hawser connected to a 76 mm chafing chain at the FSO stern.

11.6 During the approach of the tanker towards the stern of the Bien Dong Terminal, the ship's crew, under the advice of the Mooring Master will prepare the forecastle for the mooring operation. Sufficient crew members must be present to handle the mooring line.

11.7 The tanker will then heave up the messengers and pick-up rope, carefully picking up the slack as the tanker approaches the stern of the FSO.

11.8 The distance between the vessels will be continuously relayed to the Mooring Master on the bridge from the forecastle.

11.9 ENGINES MUST BE MAINTAINED IN A CONSTANT STATE OF READINESS AND AT NO TIME DURING THE TANKER'S STAY AT THE TERMINAL MAY THE ENGINES BE IMMOBILIZED.

In cases when there is a failure of a tanker's main propulsion machinery or steering gear, which renders the vessel incapable of instant maneuverability, the Mooring Master shall be informed immediately. Loading operations will be suspended, cargo hose will be disconnected. All charges incurred shall be for the Owner's account.

11.10 Emergency towing wires (Fire Wires) should be rigged, one on the Starboard bow and one on the Starboard quarter. These lines must be maintained with the eye 1 meter above the waterline with "no slack on deck".

SECTION 12

HOSE HANDLINGS

12.1 Duties of Mooring Master and Tanker Crew:

Upon completion of the mooring operation, the loading hose will be connected to the tanker Port manifold which must be prepared to accept one 12-inch ANSI B16.5 150 PSI flange prior to berthing. Hose connection will be made by the ship's crew under the supervision of a responsible deck officer. The Mooring Master or his Assistant will advise on the correct procedures to be adopted.

12.2 SWL of the Hose Handling Crane:

Depending on the freeboard of the tanker, the weight of the hose string to be lifted could reach 10tons. All tankers calling at Bien Dong Terminal must have their Port Crane/derrick rigged with SWL not less than 10 tons.

12.3 Hose transfer:

The Tanker End Hose will be transferred to the Offtake Tanker manifold area by utilizing a support boat if weather conditions are within limits stated in the table below. Boatless hose transfer to tanker manifold is the method to implement when weather conditions are not safe for the field vessel to come alongside the tanker at the manifold area.

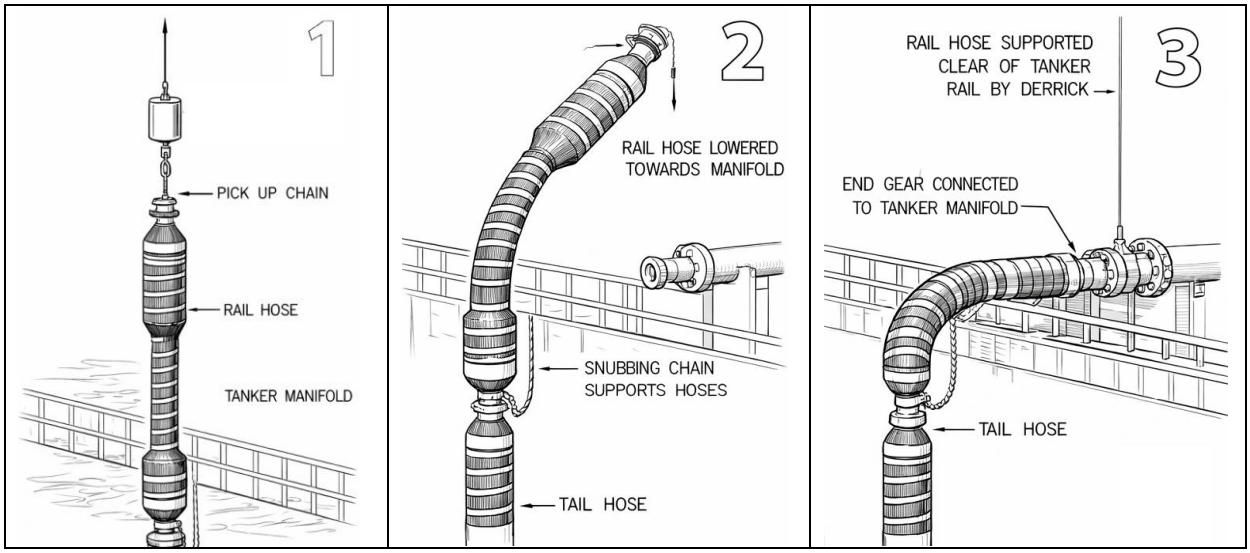
CRITERIA	ACTIVITIES	
	Hose transfer to tanker manifold by boat	Boatless hose transfer to tanker manifold
Mean Wind speed at 10m level	< 20 kts	< 35 kts
Significant Wave Height	< 1.5 m	< 4.0 m
Surface current	< 1.5 knots	N/A

Deploying the 40-42 mm dia. x 220m messenger rope along port side main deck as preparation for boatless hose transfer should be made before berthing to be commences

12.4 Hose Lifting and connection:

The hose will be lifted to a position above the main deck so that the snubbing chain/hang-off chain can be secured to the hose bitts. The Tirfors (come-along) pulling device shall be used to adjust the chain length, ensuring that the hose flange is properly aligned with the required manifold flange.

As the hose may swing widely in rough sea conditions, strong restraining ropes must be readily available at the manifold area to control movement. Once alignment is achieved, the hose end will be lowered to the deck and the blind flange removed.
The hose flange will then be connected to the 10-inch ANSI manifold using a quick-release Camlock coupling, after which at least four bolts shall be fitted to secure the connection firmly and ensure tightness during operations.



12.5 Tanker Rail Hose support:

When the hose is connected, the length between the manifold and rail will be supported by a nylon web sling to ensure that there is no undue strain on any part of the manifold or hose string.

12.6 Hose Disconnection:

Prior to completion of loading, the ship's crew and one deck officer should be placed on standby at the cargo manifold, ready for hose disconnection. When tanker is informed by FSO that all flow has ceased, the hose end butterfly valve will be closed, followed by the tanker's manifold valve. Once the spool piece has been drained into the tanker drip tray, the hose will be disconnected from the manifold. The hose support slings will be removed, and the blind flange will be put on and bolted and the hose support slings will be removed.

SECTION 13

BALLAST OPERATION

13.1 There are no ballast or slop reception facilities at Bien Dong Terminal; therefore, all vessels must arrive with clean ballast suitable for discharging directly to sea in accordance with the standards set by International Conventions (MARPOL). Vessels arriving with ballast unsuitable for discharge to sea will be rejected for loading. Any tanker rejected because of contaminated ballast or sea pollution will automatically invalidate her Notice of Readiness and will lose any priority of loading. Vessels discharging contaminated ballast overboard will be subject to the anti-pollution laws of Vietnam.

13.2 Vessels arriving at Bien Dong Terminal should maintain not less than 30 percent of Summer DWT, to ensure safe handling and maneuverability in the prevailing weather and sea conditions and in accordance with the good practice of seamanship. Furthermore, PROPELLERS MUST BE IMMERSED. (Minimum 3/4 diameter of propeller)

13.3 Whenever possible, loading procedures should be so arranged as to allow for concurrent deballasting and loading operations, provided that at least 2 valve separations can be maintained. Ballast should not be discharged before the vessel has loaded at least the equivalent amount of cargo.

13.4 The Mooring Master and Terminal Representative may accompany the Independent Inspector in witnessing the tank inspection prior to loading but will not sign certificates attesting to the emptiness or cleanliness of tanks for loading. The ullaging of the slop tank and determination of condensate content will also be witnessed.

13.5 Before commencement of the cargo tank inspection, proper draining of all cargo pipework contents shall be carried out in witness of the Terminal Representative/Mooring Master.

SECTION 14

LOADING OPERATIONS

14.1 Start of loading:

On satisfactory completion of the pre-loading transfer conference and safety check list as agreed by the Mooring Master and the Export Tanker officer in charge, the vessel will be declared ready to load. All necessary valves will be opened, the hose end butterfly valve will be opened, and the Mooring Master will instruct the Bien Dong Terminal to commence loading at a slow rate.

14.2 Loading watch:

Throughout the loading, a responsible deck officer must be in charge of operations, either on deck or in the cargo control-room (CCR), and in continuous contact with the Bien dong FSO and Mooring Master via walkie-talkie radio. In addition, an efficient deck watch in constant contact with the cargo control room must be maintained at all times. Additionally, one ship's crew will be stationed on the forecastle at all times to observe and report to Mooring Master through deck officer on the mooring condition i.e., the state of the mooring and the distance and movement of the Tanker in relation to the FSO. The instruction "Monitoring the tanker position during offtake and call CRR situation" (APPENDIX 2) must be follow strictly by deck watch crew of both Export Tanker and FSO.

14.3 Loading Rates:

The rate will not be increased until the tanker has confirmed that the hose connection is tight, that cargo is being received in the selected tanks only, and that no leakage is taking place through the sea valves. The loading rate will be increased, on request by the Export Tanker , to a maximum as the lifting tanker can receive or up to 12,500 BPH (tentative) whichever is the less subject to prior agreement between Mooring Master and Export Tanker 's Master.
At any time during loading operations, the rates can be reduced on request. Except in an emergency, 10 minutes notice should be given to the Bien Dong Terminal when rate reduction is required. As in normal tanker practice, valves must not be closed or the Export Tanker led back against the condensate flow without permission from the Bien Dong Terminal. Master is specifically warned of the severe consequences of this practice, which could result in damage to Bien Dong Terminal equipment and serious condensate pollution, for which the Owner will be held responsible.
For high accuracy of FSO Custody Transfer Meter – Prover Unit, loading rate should be maintained as stable as possible throughout the loading operation except "start–up", "topping-off" or in case of operational necessity. Duration of deviation from stable loading rate should be minimized.

14.4 Communication between FSO and the Export Tanker:

If for any reason, radio communication between the tanker and the Bien Dong Terminal are lost, the Bien dong Terminal will stop the loading until communication is re-established. In the absence of radio contact, condensate flow can also be stopped by sounding the Emergency Flow Stop Signal, consisting of intermittent short blasts on the ship's whistle.

The volume of condensate loaded is accurately available at all times from the Bien Dong Terminal, and periodic comparisons should be made between the tanker and Bien Dong Terminal figures.

14.5 Stop of loading:

The question of ship or Bien Dong Terminal responsibility to stop cargo loading and the required quantity will be discussed and agreed before loading commences, during the Pre-Transfer Conference

REQUEST FOR THE TERMINAL TO STOP THE FLOW OF CARGO AT PRE-DETERMINED TONNAGE MUST BE IN WRITING. THE REQUEST MUST INCLUDE THE STATEMENT BY THE SHIP'S MASTER THAT THE COMPANY WILL NOT BE HELD RESPONSIBLE FOR ANY ERROR, AND THAT IN THE CASE OF THE VESSEL BEING OVERLOADED, THE EXCESS CARGO CANNOT BE PUMPED BACK TO THE FSO.

14.6 Quantity and quality measurement

FSO is equipped with a sophisticated LACT (Lease Automatic Custody Transfer) Unit – Meter/Prover system. The quality and quantity of Condensate shall be determined at the Terminal by Terminal's Operator and verified by an independent inspector.

In the event of meter failure during a lifting, the quantity, to be included in Cargo Documents, shall be determined by Terminal Operator in the manner customary at the Terminal and verified by the independent inspector: Export Tanker ullaged figures are the first option and FSO ullaged figures are the second option taking into consideration the relevant factors contributing the reliability of these figures such as vessel movements during ullagings, size of the tanker, vessel's experience factor (VEF),Vessel Discharging Ratio for the last cargo, COW history, etc…The failure of LACT to be reported and acknowledged by the Independent Surveyor who witnesses the lifting.

The determination shall be conclusive and binding on the parties.

When discrepancy between the metered and Export Tanker ullaged figure is more than 0.3%, re-ullaging on board Export Tanker shall be carried out and LACT performance (Reliability of metered figures) shall be investigated by Terminal Operator and Independent Surveyor who is appointed to witness the lifting.

If the discrepancy remains beyond the 0.3% after re-ullaging, which figures to be accepted for Bill of Lading figures shall be based on the final investigation result

SECTION 15

CARGO DOCUMENTATION AND INSPECTION

15.1 For normal departure, documents such as Bills of Lading, Certificate of Quality, Certificate of Quantity, Time Loading Report, Certificate of Origin, Cargo Manifest and Master's Receipt for Documents/Samples etc. are prepared at Terminal. When the Vessel has completed loading, the documents will be completed and taken aboard the Vessel for the Master's signature. Signing these Documents by the Master will take place at the same time as the final departure clearance formalities are being carried out.

15.2 In the event of a dispute about cargo figures, the Vessel will be requested to recheck the measurement and calculations of the quantity, and the Terminal Representative and Mooring Master will witness such measurement and calculations. After both ship and shore figures have been verified, should difference of more than 0.3% still exist, receipt of a Letter of Protest will be acknowledged by the Terminal Representative or in his absence by the Mooring Master. *To maintain "Clean Documents", Masters are not to put any notes or protest on the prepared Cargo Documents.*

15.3 Notes of protest, if any, should be handed to the Terminal Representative (Or Mooring Master) for further delivery to the BDPOC Marine/Lifting Supervisor. The Terminal Representative (Or Mooring Master) will acknowledge receipt of the Note of Protest only and is not authorized to signify acceptance of such letters.

15.4 From time-to-time Owners, Charterers, Consignees, or other interested parties may appoint third party condensate inspectors to survey the loading operation on their behalf. *Any delays caused by such survey(s) shall be considered "Vessel delays".*

SECTION 16

DEPARTURE PROCEDURES

16.1 Immediately after the loading hose is disconnected and cargo tank survey is completed, unmooring of the vessel will commence. The service boat at the stern of the tanker will be released at Mooring Master discretion but will remain on location to assist. Upon advice from the Mooring Master, the mooring hawsers will be heaved in by the tanker vessel and the mooring connections will be released. In some cases it may be necessary to briefly run the engines ahead to relieve the weight on the moorings. As soon as the moorings are released, the engines will be run astern and the vessel will back away from the FSO. During the move astern, the mooring hawsers will be lowered into the water by easing back on the pick-up ropes.

16.2 When the vessel is safely cleared of the FSO, the Bien Dong Terminal mooring equipment will be taken from the forecastle to the port crane/ derrick to be transferred to the service boat together with the hose connection equipment.

16.3 Any remaining cargo calculations and paperwork will be completed prior to the disembarkation of the Mooring Master. Upon completion of all formalities, the vessel will make a good lee to disembark Terminal Personal and Government Officials. Upon disembarkation of all such personal, the vessel must clear the Bien Dong Terminal area as directed by Mooring Master before his departure..

EARLY DEPARTURE PROCEDURES (EDP)

16.4 For operational and safety reasons, the Company may require the Export Tanker which has completed its loading operations to depart prior to completion of all the following documents served by the Company:

- The Master shall make a written request for EDP and present this to the Terminal Representative on the arrival of the Export Tanker.

- The Master shall issue a Letter of Authority to the Agent, with copy to the Marine supervisor, authorizing the Agent to sign the Bill of Lading and other cargo documentation for and on behalf of the Master once the Bill of Lading and other cargo documentation has been completed.

- After departure of the Export Tanker, the final density, sediment and water content of the cargo shall be determined by the Company and witnessed by an independent inspector. This shall be derived from the analysis of the representative sample taken from the metering unit. A sealed portion of this sample shall be placed on board the Export Tanker before departure.

- The Marine Supervisor shall inform the Master of the gross and net cargo quantity loaded at 60^{o}F. This will usually be in the form of a faxed, unsigned, non-negotiable Bill of Lading pro formal.

- The Master shall as promptly as possibly inform the Agent to sign cargo documentation on his behalf or give such other instructions, as he deems necessary.

- When all the cargo documentation has been signed by the Marine supervisor and the Agent on behalf of the Master, a complete set of cargo documents shall be faxed to the Master by Ship Agent.

These will be:

- *Bill of Lading*
- *Certificate of Origin*
- *Certificate of Quantity*
- *Certificate of Quality*
- *Cargo Manifest*
- *Tanker Loading Time Report*
- *Notification of Departure*
- *Receipt for Documents and Samples*
- *Notice of Protest (if applicable)*

It should be noted that the FSO metering unit figures are normally those which shall be inserted on the Bill of Lading and other cargo documentation. However, an independent survey shall still be conducted on board the Vessel to act as back-up should a technical fault occur in the metering unit.

SECTION 17

MISCELLANEOUS

17.1 Lifting Support Boat

Lifting Support Boats are of AHTS (Anchor Handling, Towing, and Supply) type. These boats will assist the Export Tanker in in-field personnel transfer, mooring, unmooring and hose handling. These boats are directed by the Mooring Master, to whom requests by the tanker for action or assistance must be directed.

SERVICES AND FACILITIES PROVIDED BY THE COMPANY INCLUDING THE SERVICES OF THE COMPANY MOORING MASTER, RIGGERS, BOATS OR BERTHING EQUIPMENT, ARE AT THE VESSEL'S RISK.

17.2 Removal of Wrecks

Should any vessel or craft sink or become an obstruction in any part of the port or approaches thereto, or the area of the submarine pipelines, the Company shall be empowered and shall have the right to take any steps it may deem necessary to remove the obstruction without notice to the owners. All expenses of such removal shall be borne by the vessel or craft and/or by those owning it at the time of the accident, and the Company shall be entitled to reimbursement by them for any such expenses incurred by it.

17.3 Services & Supplies

1. Should it be necessary to supply boats, materials, equipment or labor, to carry out repair work to enable the vessel to continue loading, any time and costs involved will be charged to the vessel's account at rate to be established at that time. These services will only be provided in emergencies.

2. There are no bunkers, no fresh water, no small boat hire, no shore leave or shore services, and no medical assistance (except in cases of emergency) available at the Bien Dong Terminal. Information on port services in the area should be obtained from the vessel's agents.

3. Crew members cannot leave the vessel at Bien Dong Terminal except in cases of emergency. Even in an emergency it should be noted that Seamen's Books may not be valid under local government Law, and a valid passport may be required. Caution should be taken during crew changes when a vessel is in the Bien Dong Terminal Area.

4. Swimming in the sea around the Terminal is prohibited.

17.4 High Flow Rate and valve closing

Masters are reminded of the serious consequences of totally or partially closing valves against the flow of condensate from the Bien Dong Terminal. Should damage to the Bien Dong Terminal equipment result from such malpractice, time and costs of all direct and consequential damage shall be for the account of vessel's Owners, and any persistently offending vessel will not be subsequently accepted for loading.

17.5 Alcoholic Drinks

Masters are advised that offering alcohol is strictly forbidden, to the Bien Dong Terminal staff and Government officials who may board their vessels.

17.6 Accommodation

Terminal Representative, the Mooring Master and or his assistant, if any, will require accommodation throughout the vessel's stay at the Terminal. These personnel shall be accommodated in the officer's quarters.
Export Tanker shall be required to provide accommodation, where available, for the following additional personnel:

- 1 Pilot
- 1 Mooring Master
- 1 Bowman
- 1 Independent Surveyor
- 1 Shipping Agent
- 1 Quarantine Officer (in special case)
- 1 PetroVietnam representative
- And/or other person as may be required by Terminal Representative

17.7 Personnel Transfer

Case 1 – In-field personnel transfer by boat:
This method of transfer is carried out when weather conditions permit. Operational limits for this method are specified in Section 4.

Case 2 - Alternative methods:
Tanker to proceed to the nearest safe Boarding Ground: To avoid tanker delay waiting at Terminal for suitable weather for in-field personnel transfer, BDPOC Marine Specialist in consultation with Mooring Master may, at his option, for safety reasons request vessel to come to the nearest designated safe boarding ground for embarkation/disembarkation of lifting personnel.

Tanker time and cost are for account of ship-owner.

SECTION 18

HAI THACH CONDENSATE SPECIFICATIONS

Hai Thach condensate means the produces condensate export from the Bien Dong Field.

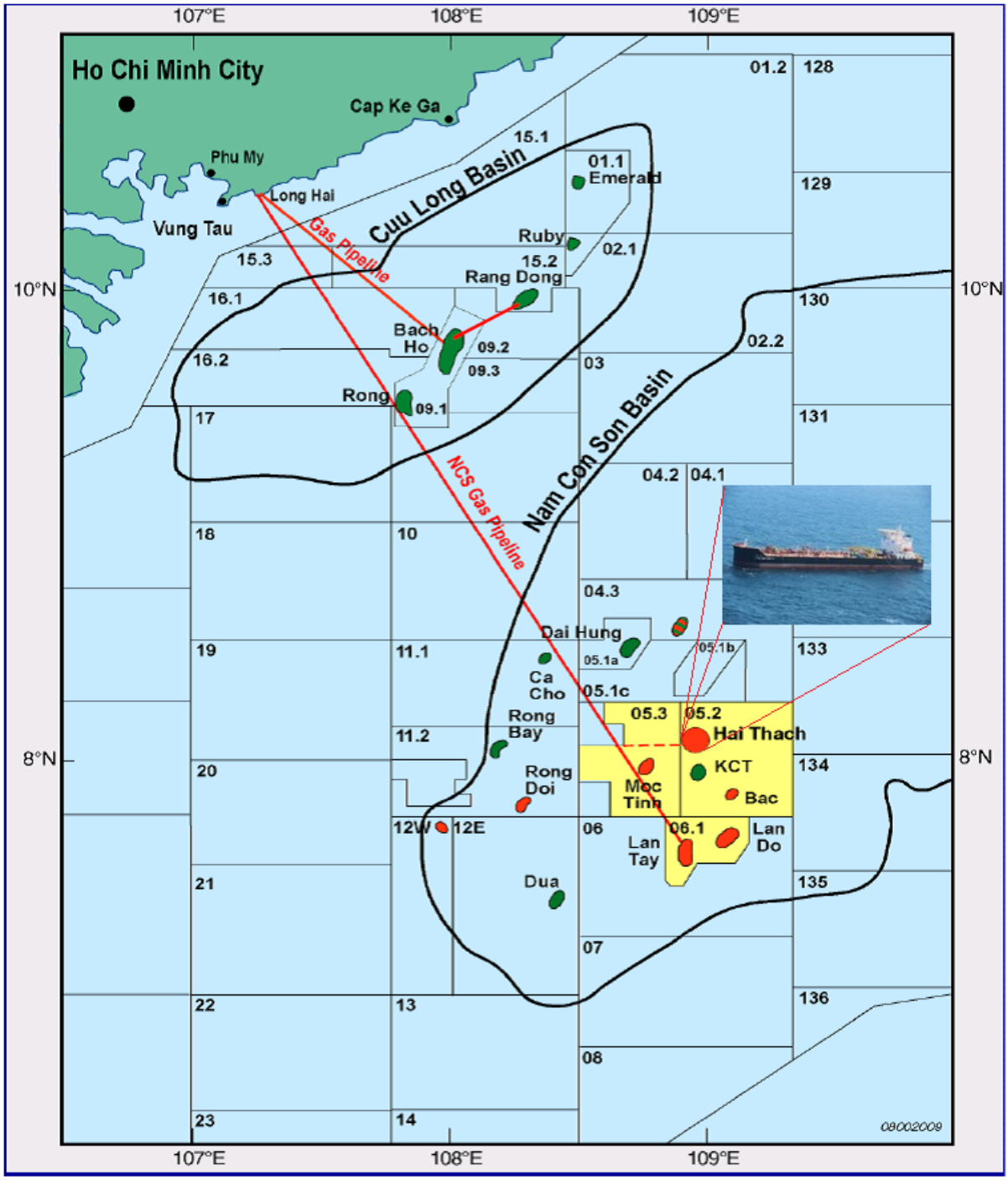
No	Description	Methods		Unit	Results	
1	Density at 15^0 C Specific Gravity @ $60/60^0$F API Gravity	ASTM D-1298		g/ml - ^{0}API	0.8382 0.8382 37.32	
2	Reid Vapor Pressure	ASTM D-323		Bar	0.228	
3	Appearance and color	Visual		-	Light yellow, transparent	
4	Odor	Smell		-	Like gasoline smell	
5	Initial Bcondensateing Point	ASTM D-2892		Deg. C	TBA	
6	Flash Point	ASTM D-56		Deg. C	- 8	
7	H_2S	ASTM D-5504		ppm	TBA	
				Cut point C5-70	**Cut point 70-100**	**Cut point 100-140**
8	Benzene	GE	% Mass	16.0443	13.0561	0.1468
9	Toluene/2,3,3-TMC5			0.0225	9.1713	28.6547
10	Cyclohexane			6.1318	13.326	0.1827

Note:

- Above specifications are the results of latest test laboratory analysis available.
- Actual cargo specification may differ from the above.

APPENDIX 1

Figure 1: LOCATION MAP



APPENDIX 2

Figure 2: Tanker approaching/mooring, then cargo hose handling steps

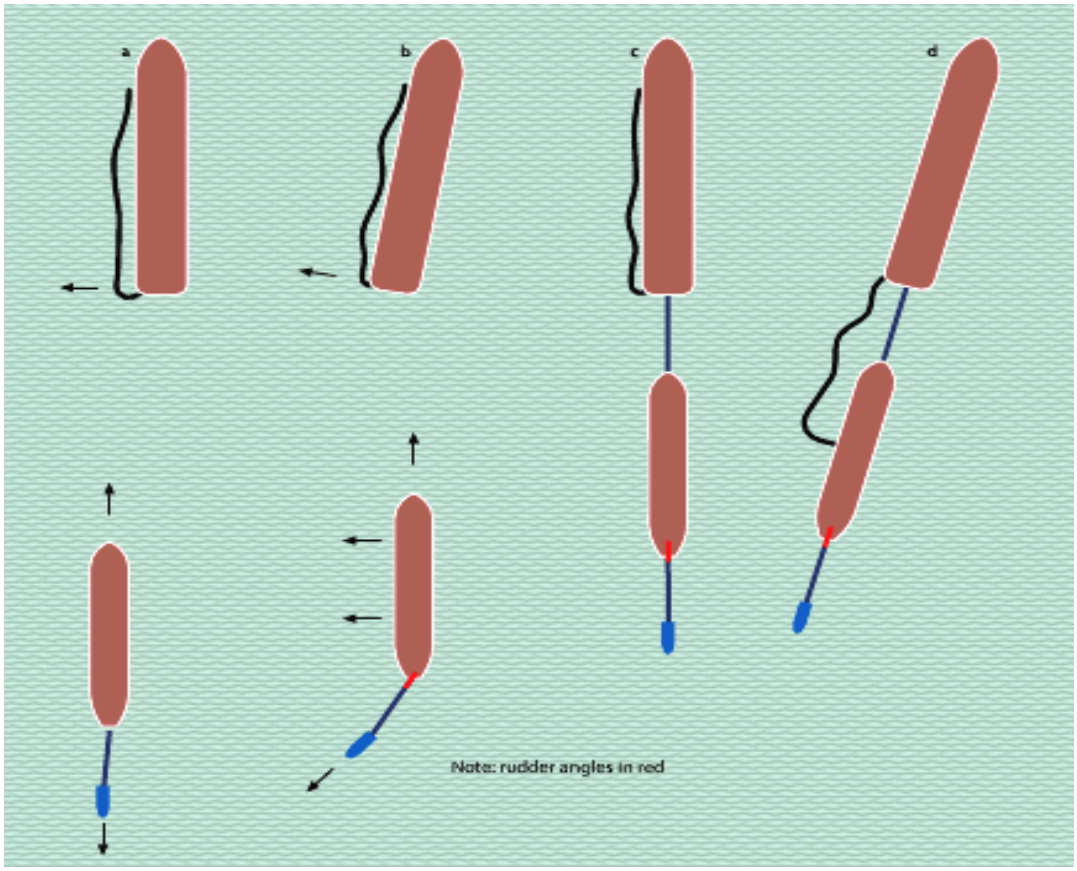
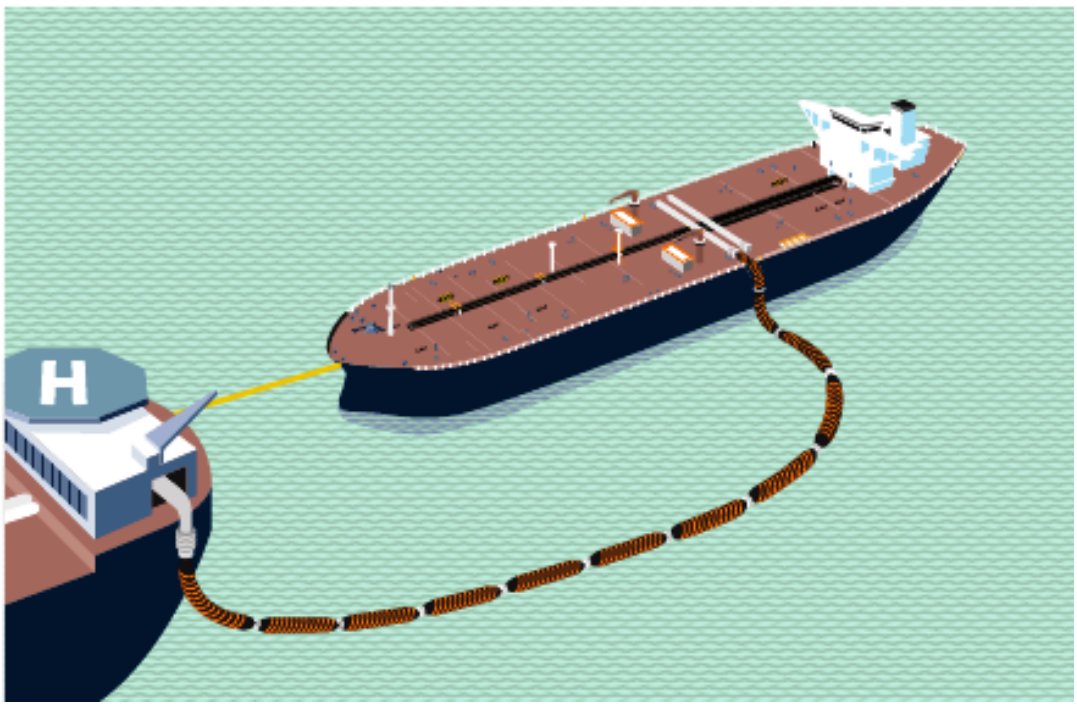
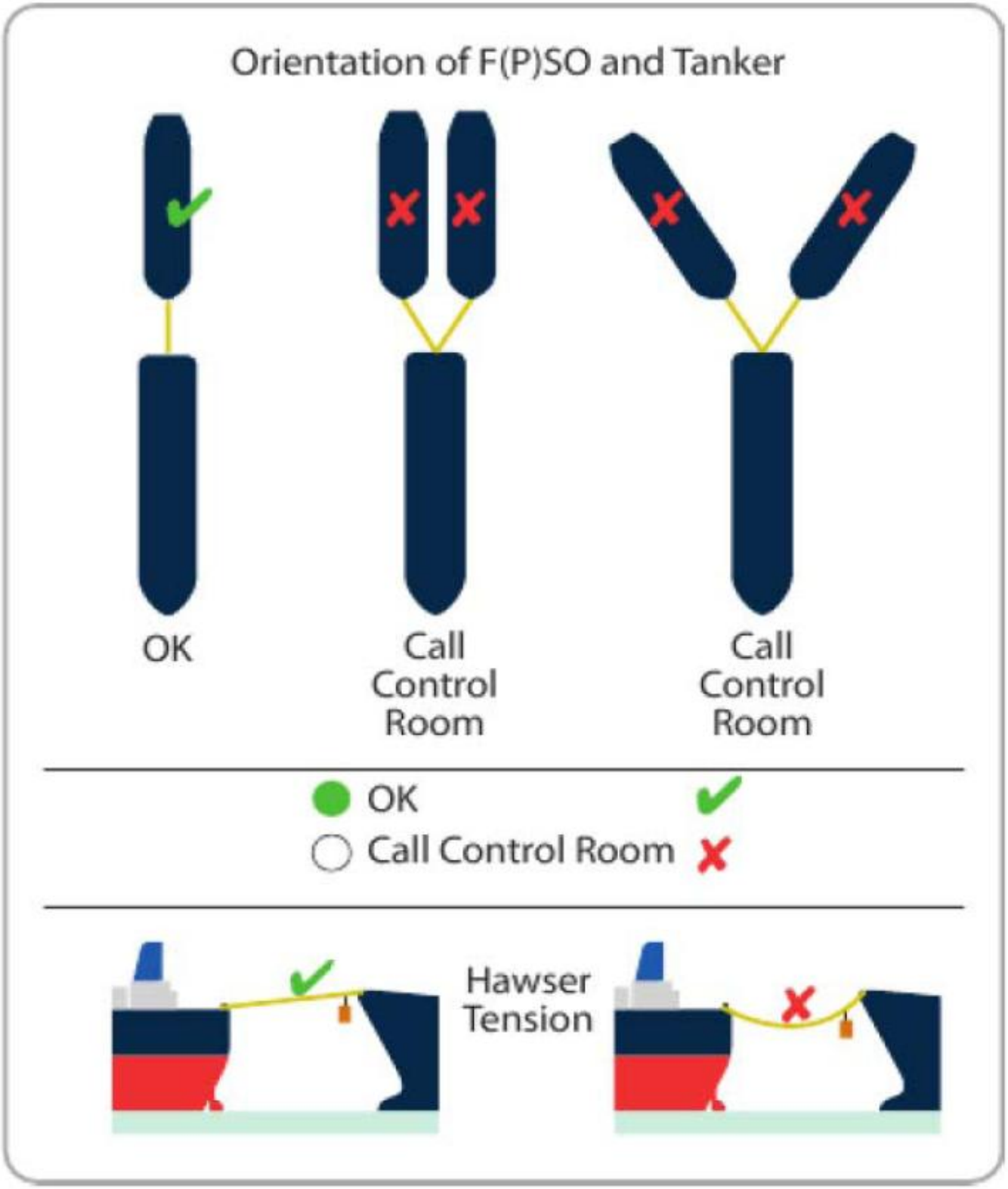


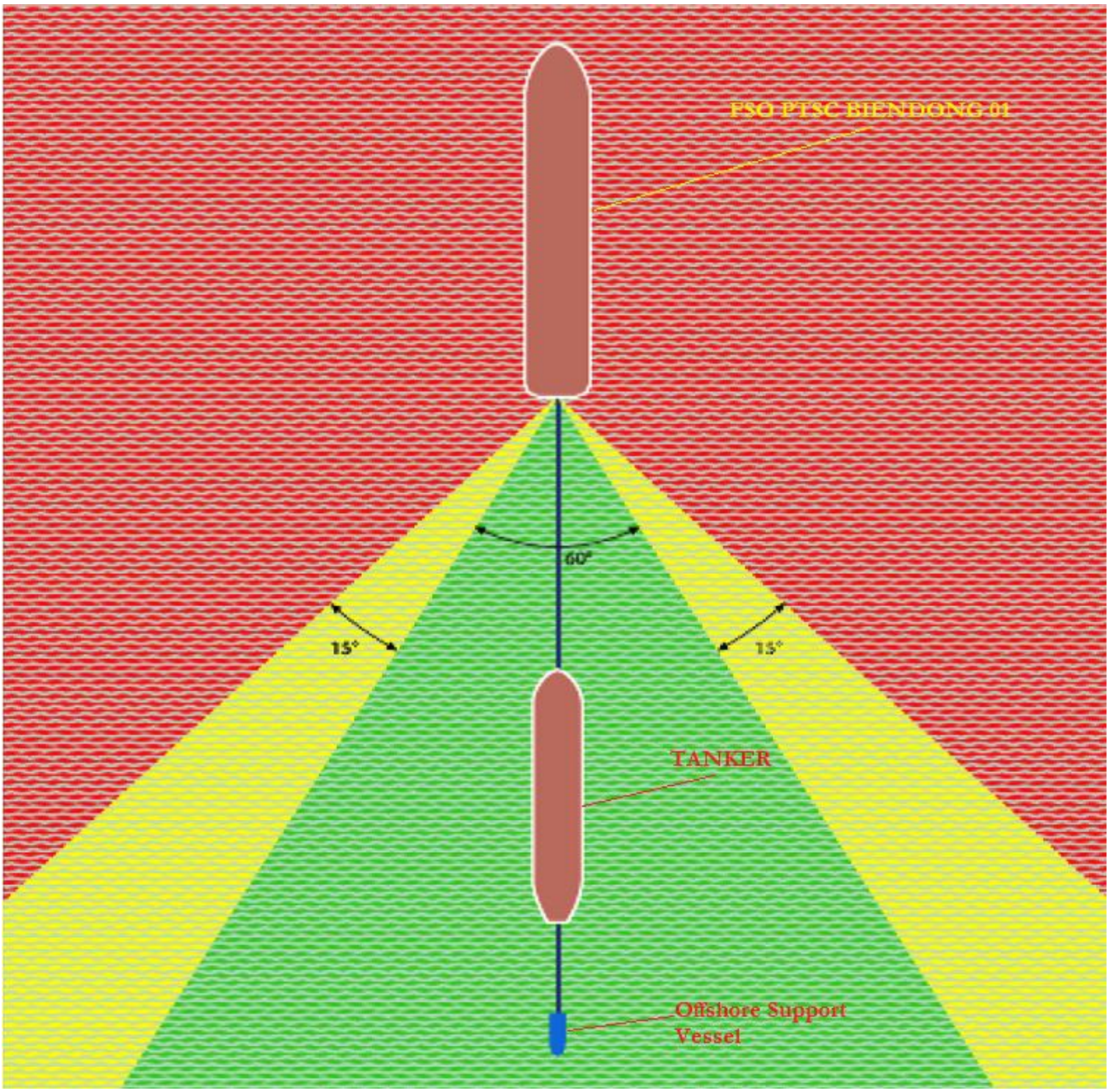
Figure 3: View of floating cargo hose had been connected



APPENDIX 3

Figure 4: Monitoring the tanker position during offtake and call CCR situation.





UNSAFE SECTOR: Offtake should be STOPPED and/or POSTPONED (Stop pumping, disconnect hose and unberth tanker). However, OIM of FSO by his own experience and judgment shall have the final decision, in due time, subject to the given situation. Under no circumstance shall the action have been carried out without the mutual agreement between Master of Export Tanker , OIM of FSO and Mooring Master.

ADVISORY SECTOR: Offtake can keep going on, however, the preparation for unberth tanker should be conduct.

SAFE SECTOR: Offtake can keep going on

APPENDIX 4

BIEN DONG MARINE TERMINAL PRE-LOADING SAFETY CHECK LIST

Ship's Name:
Berth: Port:
Date of Arrival: Time of Arrival:

INSTRUCTIONS FOR COMPLETION:

The safety of operations requires that all questions should be answered affirmatively by clearly initialing the appropriate box. If an affirmative answer is not possible, the reason should be given and agreement reached upon appropriate precautions to be taken between the ship and the Bien Dong Terminal ("Terminal"). Where any question is considered to be not applicable, then a note to that effect should be inserted in the **Remarks** column.

A box in the columns **Ship** and **Terminal** indicates that checks should be carried out by the party concerned. Shaded boxes in the Ship -Shore Safety Checklist do not require initials.

The joint declaration should not be signed until both parties have checked and accepted their assigned responsibilities and accountabilities

NOTE:-Guidelines for Completing the Ship-Shore Safety Checklist can be found on section 25.4 of ISGEXPORT TANKER Sixth Edition, 2020.

Part 1A. Tanker: Check pre-arrival			
Item	**Check**	**Status**	**Remarks**
1	Pre-arrival information is exchanged	□ Yes	
2	International shore fire connection is available	□ Yes	
3	Transfer hoses are of suitable construction	□ Yes	
4	Terminal information booklet reviewed	□ Yes	
5	Pre-berthing information is exchanged	□ Yes	
6	Pressure/vacuum valves and/or high velocity vents are operation	□ Yes	
7	Fixed and portable oxygen analysers are operation	□ Yes	

Part 1B. Tanker: Check pre-arrival if using an inert gas system			
Item	**Check**	**Status**	**Remarks**
8	Inert gas system pressure and oxygen recorders are operational	□ Yes	
9	Inert gas system pressure and associated equipment are operational	□ Yes	
10	Cargo tank atmospheres' oxygen content is less than 8%	□ Yes	
11	Cargo tank atmospheres are at positive pressure	□ Yes	

Part 2. Terminal: Check pre-arrival			
Item	**Check**	**Status**	**Remarks**
12	Pre-arrival information is exchanged	□ Yes	
13	International shore fire connection is available	□ Yes	
14	Transfer equipment is of suitable construction	□ Yes	
15	Terminal information booklet transmitted to tanker	□ Yes	

16	Pre-berthing information is exchanged	□ Yes	

Part 3. Tanker: Check after mooring			
Item	**Check**	**Status**	**Remarks**
17	Fendering is effective	□ Yes	
18	Mooring arrangement is effective	□ Yes	
19	Access to and from tanker is safe	□ Yes	
20	Scuppers and savealls are plugged	□ Yes	
21	Cargo system are connections and overboard discharges are secured	□ Yes	
22	Very high frequency and ultra high frequency transceivers are set to low power mode	□ Yes	
23	External openings in superstructures are controlled	□ Yes	
24	Pumproom ventilation is effective	□ Yes	
25	Medium frequency/high frequency radio antennae are isolated	□ Yes	
26	Accommodation spaces are at positive pressure	□ Yes	
27	Fire control plans are readily available	□ Yes	

Part 4. Terminal: Check after mooring			
Item	**Check**	**Status**	**Remarks**
28	Fendering is effective	□ Yes	
29	Tanker is moored according to the terminal mooring plan	□ Yes	
30	Access to and from terminal is safe	□ Yes	
31	Spill containment and sumps are secure	□ Yes	

Part 5. Tanker and Terminal: Pre-transfer conference				
Item	**Check**	**Tanker status**	**Terminal status**	**Remarks**
32	Tanker is ready to move at agreed notice period	□ Yes	□ Yes	
33	Effective tanker and terminal communications are established	□ Yes	□ Yes	
34	Transfer equipment is in safe condition (isolated, drained and de-pressurised)	□ Yes	□ Yes	
35	Operation supervision and watchkeeping is adequate	□ Yes	□ Yes	
36	There are sufficient personnel to deal with an emergency	□ Yes	□ Yes	
37	Smoking restrictions and designated smoking areas are established	□ Yes	□ Yes	
38	Naked light restrictions are established	□ Yes	□ Yes	
39	Control of electrical and electronic devices is agreed	□ Yes	□ Yes	
40	Means of emergency escape from both tanker and terminal are established	□ Yes	□ Yes	
41	Firefighting equipment is ready for use	□ Yes	□ Yes	
42	Oil spill clean-up material is available	□ Yes	□ Yes	
43	Manifolds are properly connected	□ Yes	□ Yes	
44	Sampling and gauging protocols are agreed	□ Yes	□ Yes	
45	Procedures for cargo, bunkers and ballast handling operations are agreed	□ Yes	□ Yes	

46	Cargo transfer management controls are agreed	□ Yes	□ Yes	
47	Cargo tank cleaning requirements, including crude oil washing, are agreed	□ Yes	□ Yes	
48	Cargo tank gas freeing arrangements agreed	□ Yes	□ Yes	
49	Cargo and bunker slop handling requirements agreed	□ Yes	□ Yes	
50	Routine for regular checks on cargo transferred are agreed	□ Yes	□ Yes	
51	Emergency signals and shutdown procedures are agreed	□ Yes	□ Yes	
52	Safety data sheets are available	□ Yes	□ Yes	
53	Hazardous properties of the products to be transferred are discussed	□ Yes	□ Yes	
54	Electrical insulation of the tanker/terminal interface is effective	□ Yes	□ Yes	
55	Tank vetting system and closed operation procedures are agreed	□ Yes	□ Yes	
56	Vapour return line operation parameters are agreed	□ Yes	□ Yes	
57	Measures to avoid back-filling are agreed	□ Yes	□ Yes	
58	Status of unused cargo and bunker connections is satisfactory	□ Yes	□ Yes	
59	Portable very high frequency and ultra high frequency radios are intrinsically safe	□ Yes	□ Yes	
60	Procedures for receiving nitrogen from terminal to cargo tank are agreed	□ Yes	□ Yes	

Part 6. Tanker and Terminal: Agreement pre-transfer				
Part 5 item	**Agreement**	**Details**	**Tanker initials**	**Terminal initials**
32	Tanker manoeuvring readiness	Notice period (maximum) for full readiness to manoeuvre: Period of disablement (if permitted):		
33	Security protocols	Security level: Local requirement:		
33	Effective tanker/terminal communications	Primary system: Backup system:		
35	Operational supervision and watchkeeping	Tanker: Terminal:		
37 38	Dedicated smoking areas and naked lights restrictions	Tanker: Terminal:		

45	Maximum wind, current and sea/swell criteria or other environmental factors	Stop cargo transfer: Disconnect: Unberth:		
45 46	Limits for cargo, bunkers and ballast handling	Maximum transfer rate: Topping-off rates: Maximum manifold pressure: Cargo temperature: Other limitations:		
45 46	Pressure surge control	Minimum number of cargo tank open: Tank switching protocols: Full load rate: Topping-off rate: Closing time of automatic valves:		
46	Cargo transfer management procedures	Action notice periods: Transfer stop protocols:		
50	Routine for regular checks on cargo transferred are agreed	Routine transferred quantity checks:		
51	Emergency signals	Tanker: Terminal:		
55	Tank venting system	Procedure:		
55	Closed operations	Requirements:		
56	Vapour return line	Operational parameters: Maximum flow rate:		
60	Notrogen supply from terminal	Procedure to receive: Maximum pressure: Flow rate:		

XX	Exception and additions	Special issue that both parties should be aware of:		

Part 7. General Tanker: Check pre-transfer			
Item	**Check**	**Status**	**Remarks**
84	Portable drip trays are correctly positioned and empty	□ Yes	
85	Individual cargo tank inert gas supply valves are secured for cargo plan	□ Yes	
86	Inert gas system delivering inert gas with oxygen content not more than 5%	□ Yes	
87	Cargo tank high level alarms are operational	□ Yes	
88	All cargo, ballast and bunker tanks openings are secured	□ Yes	

Checks during transfer Ship/Shore Safety Checklist (SSSCL)

Part 8. Tanker: Repetitive checks during and after transfer						
Item	**Check**	**Time**	**Time**	**Time**	**Time**	**Remarks**
Interval time:…… hrs						
8	Inert gas system pressure and oxygen recording operational	□ Yes	□ Yes	□ Yes	□ Yes	
9	Inert gas system and all associated equipment are operational	□ Yes	□ Yes	□ Yes	□ Yes	
11	Cargo tank atmospheres are at positive pressure	□ Yes	□ Yes	□ Yes	□ Yes	
18	Mooring arrangement is effective	□ Yes	□ Yes	□ Yes	□ Yes	
19	Access to and from the tanker is safe	□ Yes	□ Yes	□ Yes	□ Yes	
20	Scuppers and savealls are plugged	□ Yes	□ Yes	□ Yes	□ Yes	
23	External openings in superstructures are controlled	□ Yes	□ Yes	□ Yes	□ Yes	
24	Pumproom ventilation is effective	□ Yes	□ Yes	□ Yes	□ Yes	
28	Tanker is ready to move at agreed notice period	□ Yes	□ Yes	□ Yes	□ Yes	
33	Communications are effective	□ Yes	□ Yes	□ Yes	□ Yes	
35	Supervision and watchkeeping is adequate	□ Yes	□ Yes	□ Yes	□ Yes	
36	Sufficient personnel are available to deal with an emergency	□ Yes	□ Yes	□ Yes	□ Yes	
37	Smoking restrictions are designated smoking areas are complied with	□ Yes	□ Yes	□ Yes	□ Yes	
38	Naked light restrictions are complied with	□ Yes	□ Yes	□ Yes	□ Yes	
39	Control of electrical devices and equipment in hazardous zones is complied with	□ Yes	□ Yes	□ Yes	□ Yes	
40,41, 42,51	Emergency response preparedness is satisfactory	□ Yes	□ Yes	□ Yes	□ Yes	
54	Electrical insulation of the tanker/terminal interface is effective	□ Yes	□ Yes	□ Yes	□ Yes	

55	Tank venting system and closed operation procedures are as agreed	□ Yes	□ Yes	□ Yes	□ Yes	
85	Individual cargo tank inert gas valves settings are as agreed	□ Yes	□ Yes	□ Yes	□ Yes	
86	Inert gas delivery maintained at not more than 5% oxygen	□ Yes	□ Yes	□ Yes	□ Yes	
87	Cargo tank high level alarms are operational	□ Yes	□ Yes	□ Yes	□ Yes	
Initials						

Part 9. Terminal: Repetitive checks during and after transfer						
Item	**Check**	**Time**	**Time**	**Time**	**Time**	**Remarks**
Interval time:…… hrs						
18	Mooring arrangement is effective	□ Yes	□ Yes	□ Yes	□ Yes	
19	Access to and from the terminal is safe	□ Yes	□ Yes	□ Yes	□ Yes	
32	Spill containment and sumps are secure	□ Yes	□ Yes	□ Yes	□ Yes	
33	Communications are effective	□ Yes	□ Yes	□ Yes	□ Yes	
35	Supervision and watchkeeping is adequate	□ Yes	□ Yes	□ Yes	□ Yes	
36	Sufficient personnel are available to deal with an emergency	□ Yes	□ Yes	□ Yes	□ Yes	
37	Smoking restrictions are designated smoking areas are complied with	□ Yes	□ Yes	□ Yes	□ Yes	
38	Naked light restrictions are complied with	□ Yes	□ Yes	□ Yes	□ Yes	
39	Control of electrical devices and equipment in hazardous zones is complied with	□ Yes	□ Yes	□ Yes	□ Yes	
40,41, 47,51	Emergency response preparedness is satisfactory	□ Yes	□ Yes	□ Yes	□ Yes	
54	Electrical insulation of the tanker/terminal interface is effective	□ Yes	□ Yes	□ Yes	□ Yes	
55	Tank venting system and closed operation procedures are as agreed	□ Yes	□ Yes	□ Yes	□ Yes	
85	Individual cargo tank inert gas valves settings are as agreed	□ Yes	□ Yes	□ Yes	□ Yes	
86	Inert gas delivery maintained at not more than 5% oxygen	□ Yes	□ Yes	□ Yes	□ Yes	
Initials						

Declaration

We the undersigned have checked the items in the applicable parts 1 to 7 as marked and signed below:

Checked Parts	Tanker	Terminal
Part 1A. Tanker: Checks pre-arrival		
Part 1B. Tanker: Check pre-arrival if using an inert gas system		
Part 2. Terminal: Check pre-arrival		
Part 3. Tanker: Check after mooring		
Part 4. Terminal: Check after mooring		
Part 5. Tanker and Terminal: Pre-transfer conference		
Part 6. Tanker and Terminal: Agreement pre-transfer		
Part 7. General Tanker: Check pre-transfer		

In accordance with guidance in chapter 25 of ISGTT, we have satisfied ourselves that the entries we have made are correct to the best of our knowledge and that the tanker and terminal are in agreement to undertake the transfer operation.

We have also agreed to carry out the repetitive check noted in parts 8 and 9 of ISGTT Ship/Shore Safety Checklist (SSSCL), which should occur at intervals of not more than …… hours for the tanker and not more than …….. hours for the terminal.

If, to our knowledge, the status of ay item changes, we will immediately inform the other party.

For Ship	For Terminal
Name:	Name:
Rank:	Rank:
Signature:	Signature:
Date:	Date:
Time:	Time:

APPENDIX 5

BIEN DONG MARINE TERMINAL VESSEL QUESTIONNAIRE

(INTERTANKO'S STANDARD TANKER VOYAGE CHARTERING QUESTIONNAIRE 1988 –Version 3)

Complete Questionnaire and answer questions as appropriate and attach a legible copy of the forecastle deck mooring arrangement plan

1.	**VESSEL DESCRIPTION**	
1.1	Date updated:	
1.2	Vessel's name:	
1.3	IMO number:	
1.4	Vessel's previous name(s) and date(s) of change:	
1.5	Date delivered:	
1.6	Builder (where built):	
1.7	Flag:	
1.8	Port of Registry:	
1.9	Call sign:	
1.10	Vessel's satcom phone number:	
	Vessel's fax number:	
	Vessel's telex number:	
	Vessel's email address:	
1.11	Type of vessel:	
1.12	Type of hull:	
Classification		
1.13	Classification society:	
1.14	Class notation:	
1.15	If Classification society changed, name of previous society:	
1.16	If Classification society changed, date of change:	
1.17	IMO type, if applicable:	
1.18	Does the vessel have ice class? If yes, state what level:	
1.19	Date / place of last dry-dock:	
1.20	Date next dry dock due	
1.21	Date of last special survey / next survey due:	
1.22	Date of last annual survey:	
1.23	If ship has Condition Assessment Program (CAP), what is the latest overall rating:	
1.24	Does the vessel have a statement of compliance issued under the provisions of the Condition Assessment Scheme (CAS): If yes, what is the expiry date?	
Dimensions		
1.25	Length Over All (LOA):	

1.26	Length Between Perpendiculars (LBP):				
1.27	Extreme breadth (Beam):				
1.28	Moulded depth:				
1.29	Keel to Masthead (KTM) / KTM in collapsed condition (if applicable):				
1.30	Bow to Center Manifold (BCM) / Stern to Center Manifold (SCM):				
1.31	Distance bridge front to center of manifold:				
1.32	Parallel body distances:	Lightship			
	Forward to mid-point manifold:				
	Aft to mid-point manifold:				
	Parallel body length:				
1.33	FWA at summer draft / TPC immersion at summer draft:				
1.34	What is the max height of mast above waterline (air draft)				
	Lightship:				
	Normal ballast:				
	At loaded summer deadweight:				
Tonnages					
1.35	Net Tonnage:				
1.36	Gross Tonnage / Reduced Gross Tonnage (if applicable):				
1.37	Suez Canal Tonnage - Gross (SCGT) / Net (SCNT):				
1.38	Panama Canal Net Tonnage (PCNT):				
Loadline Information					
1.39	Loadline	Freeboard	Draft	Deadweight	Displacement
	Summer:				
	Winter:				
	Tropical:				
	Lightship:				
	Normal Ballast Condition:				
1.40	Does vessel have multiple SDWT?				
1.41	If yes, what is the maximum assigned deadweight?				
Ownership and Operation					
1.42	Registered owner - Full style:				
1.43	Technical operator - Full style:				
1.44	Commercial operator - Full style:				
1.45	Disponent owner - Full style:				

2.	CERTIFICATION	Issued	Last Annual or Intermediate	Expires
2.1	Safety Equipment Certificate:			
2.2	Safety Radio Certificate:			
2.3	Safety Construction Certificate:			
2.4	Loadline Certificate:			
2.5	International Oil Pollution Prevention Certificate (IOPPC):			
2.6	Safety Management Certificate (SMC):			
2.7	Document of Compliance (DOC):			
2.8	USCG (specify: COC, LOC or COI):			
2.9	Civil Liability Convention Certificate (CLC):			
2.10	Civil Liability for Bunker Oil Pollution Damage Convention Certificate (CLBC):			
2.11	U.S. Certificate of Financial Responsibility (COFR):			
2.12	Certificate of Fitness (Chemicals):			
2.13	Certificate of Fitness (Gas):			
2.14	Certificate of Class:			
2.15	International Ship Security Certificate (ISSC):			
2.16	International Sewage Pollution Prevention Certificate (ISPPC)			
2.17	International Air Pollution Prevention Certificate (IAPP):			
Documentation				
2.18	Does vessel have all updated publications as listed in the Vessel Inspection Questionnaire, Chapter 2- Question 2.24, as applicable:			
2.19	Owner warrant that vessel is member of ITOPF and will remain so for the entire duration of this voyage/contract:			
3.	**CREW MANAGEMENT**			
3.1	Nationality of Master:			
3.2	Nationality of Officers:			
3.3	Nationality of Crew:			
3.4	If Officers/Crew employed by a Manning Agency - Full style:			
3.5	What is the common working language onboard:			
3.6	Do officers speak and understand English:			
3.7	In case of Flag Of Convenience, is the ITF Special Agreement on board:			
4.	**HELICOPTERS**			
4.1	Can the ship comply with the ICS Helicopter Guidelines:			

4.2	If Yes, state whether winching or landing area provided:			
5.	**FOR USA CALLS**			
5.1	Has the vessel Operator submitted a Vessel Spill Response Plan to the US Coast Guard which has been approved by official USCG letter:			
5.2	Qualified individual (QI) - Full style:			
5.3	Oil Spill Response Organization (OSRO) -Full style:			
5.4	Has technical operator signed the SCIA / C-TPAT agreement with US customs concerning drug smuggling:			
6.	**CARGO AND BALLAST HANDLING**			
Double Hull Vessels				
6.1	Is vessel fitted with centerline bulkhead in all cargo tanks:			
6.2	If Yes, is bulkhead solid or perforated:			
Cargo Tank Capacities				
6.3	Capacity (98%) of each natural segregation with double valve (specify tanks):			
6.4	Total cubic capacity (98%, excluding slop tanks):			
6.5	Slop tank(s) capacity (98%):			
6.6	Residual/Retention oil tank(s) capacity (98%), if applicable:			
6.7	Does vessel have Segregated Ballast Tanks (SBT) or Clean Ballast Tanks (CBT):			
SBT Vessels				
6.8	What is total capacity of SBT?			
6.9	What percentage of SDWT can vessel maintain with SBT only:			
6.10	Does vessel meet the requirements of MARPOL Annex I Reg 18.2: (previously Reg 13.2)			
Cargo Handling				
6.11	How many grades/products can vessel load/discharge with double valve segregation:			
6.12	Maximum loading rate for homogenous cargo per manifold connection:			
6.13	Maximum loading rate for homogenous cargo loaded simultaneously through all manifolds:			
6.14	Are there any cargo tank filling restrictions. If yes, please specify:			
Pumping Systems				
6.15	Pumps:	No.	Type	Capacity
	Cargo:			
	Stripping:			
	Eductors:			
	Ballast:			
6.16	How many cargo pumps can be run simultaneously at full capacity:			
Cargo Control Room				

6.17	Is ship fitted with a Cargo Control Room (CCR):			
6.18	Can tank innage / ullage be read from the CCR:			
Gauging and Sampling				
6.19	Can ship operate under closed conditions in accordance with ISGEXPORT TANKER :			
6.20	What type of fixed closed tank gauging system is fitted:			
6.21	Are overfill (high-high) alarms fitted? If Yes, indicate whether to all tanks or partial:			
Vapor Emission Control				
6.22	Is a vapor return system (VRS) fitted:			
6.23	Number/size of VRS manifolds (per side):			
Venting				
6.24	State what type of venting system is fitted:			
Cargo Manifolds				
6.25	Does vessel comply with the latest edition of the OCIMF 'Recommendations for Oil Tanker Manifolds and Associated Equipment':			
6.26	What is the number of cargo connections per side:			
6.27	What is the size of cargo connections:			
6.28	What is the material of the manifold:			
Manifold Arrangement				
6.29	Distance between cargo manifold centers:			
6.30	Distance ships rail to manifold:			
6.31	Distance manifold to ships side:			
6.32	Top of rail to center of manifold:			
6.33	Distance main deck to center of manifold:			
6.34	Manifold height above the waterline in normal ballast / at SDWT condition:			
6.35	Number / size reducers:			
Stern Manifold				
6.36	Is vessel fitted with a stern manifold:			
6.37	If stern manifold fitted, state size:			
Cargo Heating				
6.38	Type of cargo heating system?			
6.39	If fitted, are all tanks coiled?			
6.40	If fitted, what is the material of the heating coils:			
6.41	Maximum temperature cargo can be loaded/maintained:			
Tank Coating				
6.42	Are cargo, ballast and slop tanks coated?	Coated	Type	To What Extent
	Cargo tanks:			
	Ballast tanks:			

	Slop tanks:					
6.43	If fitted, what type of anodes are used:					
7.	**INERT GAS AND CRUDE OIL WASHING**					
7.1	Is an Inert Gas System (IGS) fitted:					
7.2	Is IGS supplied by flue gas, inert gas (IG) generator and/or nitrogen:					
7.3	Is a Crude Oil Washing (COW) installation fitted:					
8.	**MOORING**					
8.1	Mooring wires (on drums)	No.	Diameter	Material	Length	Breaking Strength
	Forecastle:					
	Main deck fwd:					
	Main deck aft:					
	Poop deck:					
8.2	Wire tails	No.	Diameter	Material	Length	Breaking Strength
	Forecastle:					
	Main deck fwd:					
	Main deck aft:					
	Poop deck:					
8.3	Mooring ropes (on drums)	No.	Diameter	Material	Length	Breaking Strength
	Forecastle:					
	Main deck fwd:					
	Main deck aft:					
	Poop deck:					
8.4	Other mooring lines	No.	Diameter	Material	Length	Breaking Strength
	Forecastle:					
	Main deck fwd:					
	Main deck aft:					
	Poop deck:					
8.5	Mooring winches			No.	# Drums	Brake Capacity
	Forecastle:					
	Main deck fwd:					
	Main deck aft:					
	Poop deck:					
8.6	Mooring bitts					

	Forecastle:		
	Main deck fwd:		
	Main deck aft:		
	Poop deck:		
8.7	Closed chocks and/or fairleads of enclosed type		
	Forecastle:		
	Main deck fwd:		
	Main deck aft:		
	Poop deck:		
Emergency Towing System			
8.8	Type / SWL of Emergency Towing system forward:		
8.9	Type / SWL of Emergency Towing system aft:		
Anchors			
8.10	Number of shackles on port cable:		
8.11	Number of shackles on starboard cable:		
Escort Tug			
8.12	What is SWL and size of closed chock and/or fairleads of enclosed type on stern:		
8.13	What is SWL of bollard on poopdeck suitable for escort tug:		
Bow/Stern Thruster			
8.14	What is brake horse power of bow thruster (if fitted):		
8.15	What is brake horse power of stern thruster (if fitted):		
Single Point Mooring (SPM) Equipment			
8.16	Does vessel comply with the latest edition of OCIMF 'Recommendations for Equipment Employed in the Mooring of Vessels at Single Point Moorings (SPM)':		
8.17	Is vessel fitted with chain stopper(s):		
8.18	How many chain stopper(s) are fitted:		
8.19	State type of chain stopper(s) fitted:		
8.20	Safe Working Load (SWL) of chain stopper(s):		
8.21	What is the maximum size chain diameter the bow stopper(s) can handle:		
8.22	Distance between the bow fairlead and chain stopper/bracket:		
8.23	Is bow chock and/or fairlead of enclosed type of OCIMF recommended size (600mm x 450mm)? If not, give details of size:		
Lifting Equipment			
8.24	Derrick / Crane description (Number, SWL and location):		
8.25	What is maximum outreach of cranes / derricks outboard of the ship's side:		
Ship To Ship Transfer (STS)			
8.26	Does vessel comply with recommendations contained in OCIMF/ICS Ship To Ship Transfer Guide (Petroleum or Liquified Gas, as applicable):		

9.	**MISCELLANEOUS**	
Engine Room		
9.1	What type of fuel is used for main propulsion?	
9.2	What type of fuel is used in the generating plant?	
9.3	Capacity of bunker tanks - IFO and MDO/MGO:	
9.4	Is vessel fitted with fixed or controllable pitch propeller(s)?	
Insurance		
9.5	P & I Club - Full Style:	
9.6	P & I Club coverage - pollution liability coverage:	
Port State Control		
9.7	Date and place of last Port State Control inspection:	
9.8	Any outstanding deficiencies as reported by any Port State Control:	
9.9	If yes, provide details:	
Recent Operational History		
9.10	Has vessel been involved in a pollution, grounding, serious casualty or collision incident during the past 12 months? If yes, full description:	
9.11	Last three cargoes / charterers / voyages (Last / 2nd Last / 3rd Last):	
Vetting		
9.12	Date/Place of last SIRE Inspection:	
9.13	Date/Place of last CDI Inspection:	
9.14	Recent Oil company inspections/screenings (To the best of owners knowledge and without guarantee of acceptance for future business)*: **Blanket "approvals" are no longer given by Oil Majors and ships are accepted for the voyage on a case by case basis.*	

ELICOPTER WINCHING

1.	Where is the winching area located?				
	a)	Forward ☐	Midships ☐	Aft ☐	
	b)	Port ☐	Starboard ☐	Centre ☐	
2.	What is the size of the winching area? *(Refer to Figure 1– for "New version of Super Puma" Helicopter EC225)* and specify diameters of Clear , Intermediate and Manoeuvring Zones				
3.	Is the fire fighting equipment or its equivalent available for helicopter operations as per ICS Guide to Helicopter /Ship Operations Third Edition, May 1989?			YES ☐	NO☐
4.	Is the rescue and medical equipment in serviceable condition close to the helicopter operating area as per ICS (International Chamber of Shipping) Guide to Helicopter /Ship Operations Third Edition, May 1989?			YES ☐	NO☐
5.	Is VHF AM Aeronautical radio 118-136 Mhz available ?			YES ☐	NO ☐
6.	Are the ship side rails in way of the helicopter landing zone collapsible?			YES ☐	NO ☐
7.	How many helicopter operations has the Vessel handled in the last 12 months?				

8.	Does the Vessel have the ICS (International Chamber of Shipping) Guide to Helicopter /Ship Operations Third Edition, May 1989 on board?	YES ☐	NO ☐
9.	Does the P&I insurance cover aviation operations?	YES ☐	NO ☐

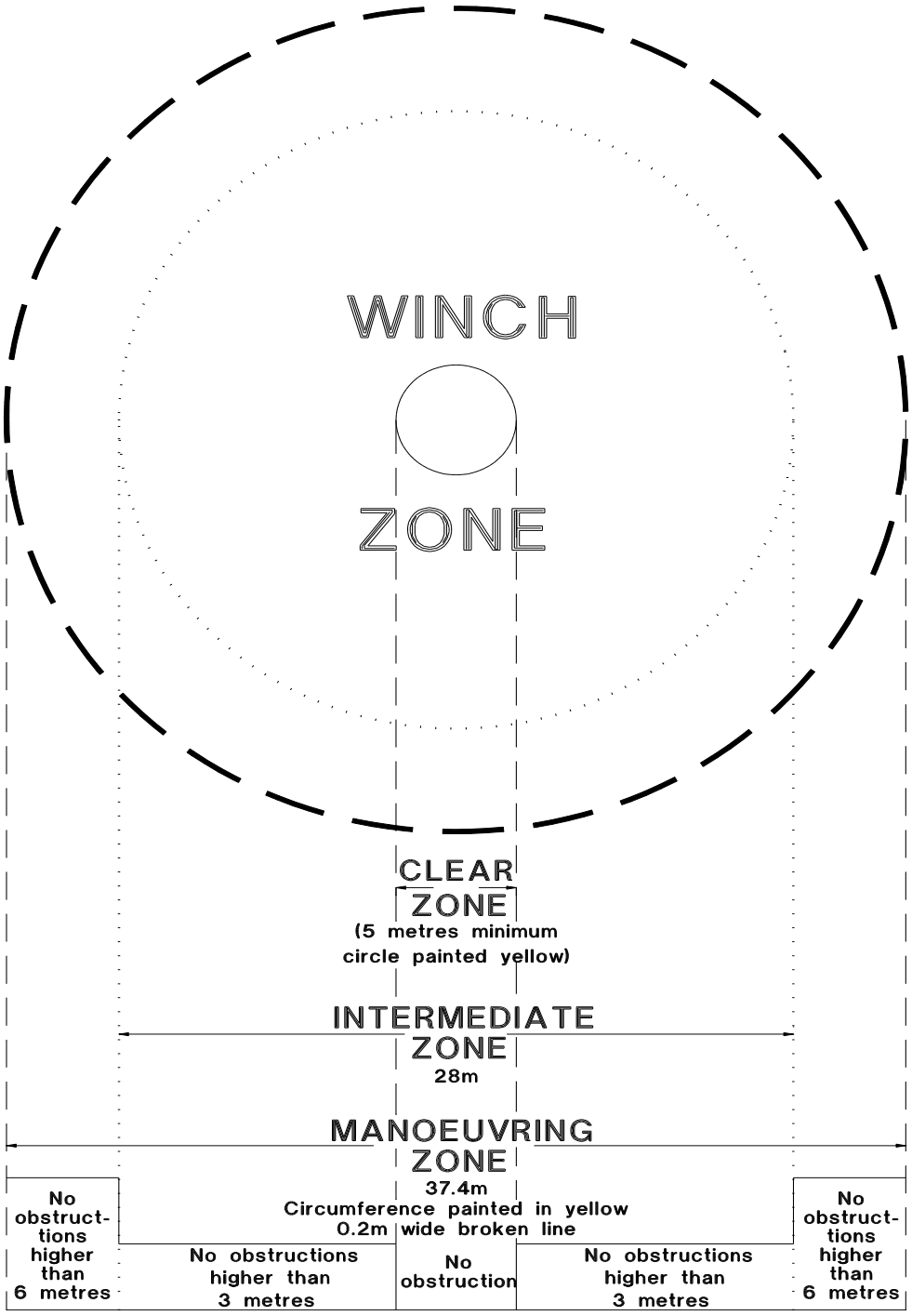


Figure 5: REQUIRED HELICOPTER WINCHING ZONE LAYOUT
(D = 18.7m for New version Super Puma EC 225 – Normal type of helicopter utilized for Bien dong condensate field)

APPENDIX 6

BIEN DONG TERMINAL

Fire Regulations and Smoking Restrictions

Vessel:

Date:

The following fire regulations and smoking restrictions should be posted in prominent positions and brought to the attention of all personnel on board the vessel and must be strictly enforced. Smoking is prohibited while at the loading berth except in the following two rooms in the after part of the vessel specified by the Master.

1.

2.

The Master and officers must ensure that the fire regulations and smoking restriction are strictly adhered to. Only approved electric and steam galleys in selected locations in the after part of the vessel, agreed to by the Master and the Mooring Master, are permitted, cigarette ends and hot materials must not be thrown into the water at any time. No chipping and scaling are allowed while at the loading berth. Over side hull painting is not allowed at the loading berth. All of the vessel's scuppers on the main deck must be plugged and cemented condensate tight. Approved mechanical means of closing scuppers may be accepted. When the mooring operations have been completed, fire wires of at least 150 feet in length will be secured to the vessel's bitts and run out at the bow and stern of the vessel's starboard side and held in place on short stoppers with the eyes approximately six feet above the surface of the water so that they can be readily available to a tug in case of emergency.

Main engines must be available for use at all times while the vessel is at the loading berth. Fire hoses with jet/spray nozzles are to be rigged and ready for instant use. It is the responsibility of the Master to ensure that the mooring lines of his vessel are tended at all times.

ALARM IN CASE OF FIRE

Rapid and continuous ringing of the vessel's fire alarm bell together with a succession of long blasts on the vessels whistle.

OVERFLOW OR ESCAPE OF CONDENSATE INTO THE WATER

In the event of an overflow and/or escape of condensate into the water, loading will be suspended immediately on the vessel concerned. Loading will not be resumed until the area has been cleared of condensate and conditions declared safe.

APPENDIX 7

CONTINGENCY PLAN IN THE EVENT OF FIRE DURING LIFTING OPERATIONS

TO BE POSTED IN PROMINENT LOCATIONS
ON EXPORT TANKER AND STORAGE VESSEL

IN THE EVENT OF FIRE ON TANKER:

Tanker Fire Alarm:
Continuous sounding of the ship's whistle and sounding of the general alarm bells.

IN THE EVENT OF FIRE ON FSO:

FSO Fire & Emergency Alarm
Continuous sounding of FSO whistle and sounding of the Fire and Emergency siren.

Action Aboard Tanker

- Sound alarm
- Inform FSO
- Stop cargo operations
- Close loading valves on instructions from FSO
- Fight fire
- Engines ready

Action Aboard FSO

- Sound alarm
- Inform tanker
- Issue instruction to tanker
- Stop cargo operations
- Close delivery valves
- Fight fire
- Inform all field stations of situation.

Standby to:

- Release tug to fire fighting duties
- Disconnect hoses on instruction from FSO
- Cast off mooring line
- Take aboard fire-fighting party
- Receive instructions from Mooring Master

Standby to:

- Disconnect tanker mooring
- Take aboard fire fighting party
- Inform standby boat
- Require helicopter assistance
- Contact outside assistance
- When possible contact BDPOC office/operation management for combined approval & efforts.

TANDEM LIFTING LIMITS and CONTIGENCY PLAN					
Parameter	Approach & Berthing limits		Limits During Offtake		
	Take Action if	Action to take	Take Action if	Action to take	
	'> 30 knots				