

Chevron Nigeria Limited



Escravos Terminal



Terminal Information, Regulations and Conditions of Use

Edition number 13 dated July 2010



**CHEVRON NIGERIA LIMITED
ESCRAVOS TERMINAL**

**TERMINAL INFORMATION, REGULATIONS
AND CONDITIONS OF USE**

To the Master MV _____

A copy of the "Escravos Terminal Information, Regulations and Conditions of Use" booklet is enclosed for your guidance.

You are requested to study this booklet and acquaint your crew with the regulations in force at our Terminal.

Chevron Nigeria Limited Mooring Masters will be on board your vessel throughout the period your vessel is on the berth and are empowered to cease operations should there be any contravention of the regulations.

For and on behalf of CHEVRON NIGERIA LIMITED

(Signature)

Name _____

Title _____

ACKNOWLEDGMENT:

I acknowledge receipt of the "Escravos Terminal Information, Regulations and Conditions of Use" booklet.

I hereby accept and agree to be bound by the terms and conditions set forth in "The Conditions of Entry into and use of Escravos Terminal Nigeria", on behalf of myself, my vessel and her Owners, the terms and conditions set forth therein.



Ships Stamp

(Signature)

Captain Name _____

Date & Time _____



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**CHEVRON NIGERIA LIMITED
ESCRAVOS TERMINAL**

SAFETY REQUIREMENTS

(SOP 4312-2)

To the Master MV _____

Responsibility for the safe conduct of operations on board your ship while at our terminal rests with you as Master. Nevertheless, since personnel, property and other shipping may also suffer serious damage in the event of an accident aboard your ship, we wish, before operations start, to seek your full cooperation and understanding on the safety requirements set out in the Escravos Terminal Safety Check List.

These safety requirements are based on safe practices widely accepted by the oil and tanker industries. We therefore expect you and all under your command to adhere strictly to them throughout your stay in this port. We, for our part, have instructed our personnel to do likewise and cooperate fully with you in the mutual interest of a safe and efficient operation. In order to assure ourselves of your compliance with these safety requirements, we shall, before the start of operations and thereafter from time to time, instruct a member of our staff to inspect your ship. After reporting to you or your deputy, he will invite one of your officers to join him in a routine inspection of your ship to ensure that the Escravos Terminal Safety Check List can be completed in the affirmative.

If we observe any infringement on board your ship of any of these safety requirements, we shall bring this immediately to the attention of yourself or your deputy for corrective action. If such action is not taken in a reasonable time, we shall adopt measures which we consider to be the most appropriate to deal with the situation and we shall notify you accordingly. If you observe any infringement of these regulations by Chevron Nigeria Limited staff on board your ship, please bring this immediately to the attention of the CNL Mooring Master who is nominated as your contact during your stay in port. Should you feel that any immediate threat to the safety of your ship arises from any action on our part, or from the equipment under our control, you are fully entitled to demand an immediate cessation of operations.

In the event of continued or flagrant disregard of these Safety Regulations by any ship, we reserve the right to stop all operations and to order that ship off the berth for appropriate action to be taken by the Charterer and Owners concerned.

For and on behalf of CHEVRON NIGERIA LIMITED

(Signature)

Name _____

Title _____

ACKNOWLEDGMENT:

Please acknowledge receipt understanding and acceptance of this letter by countersigning and returning the attached copy.



Ships Stamp

(Signature)

Captain Name _____

Date / Time _____



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**CHEVRON NIGERIA LIMITED
ESCRAVOS TERMINAL**

**TERMINAL INFORMATION, REGULATIONS
AND CONDITIONS OF USE**

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While the information is intended generally to acquaint Owners, Operators and Masters of tankers, with the general conditions, facilities and services normally to be found at the Escravos Terminal, which is operated by Chevron Nigeria Limited (CNL), such information is provided without any guarantee or warranty as to its accuracy or completeness.

Further, this information does not supersede or replace any information, laws, or regulations contained in any official publications with respect to the waters and areas to which it pertains. Reference should be made to the appropriate Hydrographic Office publications, Admiralty publications and official charts for the purpose of obtaining specific navigational information.

Operations by vessels calling at this Terminal are to be conducted in accordance with the recommendations of the current edition of the "International Safety Guide for Oil Tankers and Terminals" (ISGOTT).

In all circumstances the Master of the vessel shall remain solely responsible for the safety and safe navigation of his vessel and for the compliance with all applicable laws, rules and regulations.

PART 1

CONDITIONS OF ENTRY INTO & USE OF ESCRAVOS TERMINAL, NIGERIA

(SOP 4312-1)

1. All services, facilities and assistance provided by or on behalf of CHEVRON NIGERIA LIMITED ("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, Bye-Laws and Harbor Regulations, Safety Regulations, and Towage Conditions 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 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 the furnishing of mooring lines and hosing-up gear are under the supervision and control of the Mooring Master. 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 performance of these additional services, or furnishing of equipment, whether any of which they are utilized by any vessel.
2. 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 navigation 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 safety and proper navigation of his vessel.
3. While The Company exercises due care to ensure that the berths, premises, facilities, property, gear, craft 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 and suitability is given by The Company. Nor does The Company guarantee that such berths, premises, facilities, property, gear, craft, 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 to 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 fault or defect in any berth, premises, facilities, property, gear, craft, or equipment of any sort of The Company or its servants, agents or contractors.

4. The Company will not be responsible for any loss, damage or delay directly or indirectly caused or contributed to by or arising from strikes, lock-outs, or labour disputes or disturbances whether The Company or its servants, agents or contractors are parties thereto or not.
5. 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, or of any other facilities or property, of any sort whatsoever, belonging to or provided by on behalf of The Company, any damage or injury is caused to such berth, premises, gear or equipment, craft, or other facility or property, or any third party, or any vessel or her 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 loss sustained by The Company, its parent companies, subsidiaries or affiliates, consequent thereon.
6. The vessel and her Owners shall hold The Company, its parent companies, subsidiaries, and affiliates, and its and their servants, agents 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, cost, 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 or her Owners or crew, including your vessel and Owners and crew, including but not limited to, that caused or contributed, whether directly or indirectly, by the vessel or any part thereof or by any substance or material leaking or escaping there from 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 there from or by her Master or crew or by any other servant or agent of the Owners.
7. These conditions shall be construed according to the Laws of Nigeria and the vessel and her Owners shall submit to the jurisdiction of the Nigerian Courts.

PART 2

TERMINAL INFORMATION

2.1 GENERAL DESCRIPTION

- 2.1.1 Escravos Terminal is the crude oil and LPG export facility of Chevron Nigeria Limited. A crude oil blend from the offshore and onshore fields called "Escravos Crude" or "Nigerian Light Crude" is transferred to export tankers berthed at the Escravos Terminal via the Escravos Tank Farm. LPG is transferred to gas tankers tandem berthed at the LPG FSO. Mooring and unmooring operations at the crude oil SBM berths may be undertaken day or night under normal weather conditions. Mooring operations at the LPG FSO will be carried out during the hours of daylight only. Unmooring at the LPG FSO however may be carried out during day or night.
- 2.1.2 Vessels loading at the Escravos Terminal must comply with the latest SOLAS, MARPOL and other IMO Conventions and Protocols. Vessels which are found to be seriously deficient any way will not be berthed or allowed to load at the Terminal.
- 2.1.3 The national flag of NIGERIA shall be permanently displayed by vessels while at the Terminal.

2.2 LAYOUT OF SBMs AND LPG FSO

2.2.1 **Location**

The Escravos Terminal marine export facility primarily consists of two Single Point Mooring (SBM) Berths: No. 2 and No. 3, and an LPG Floating Storage and Offtake barge (FSO).

The Location of SBM Berth No. 2 is off the mouth of the Escravos River in position Latitude **05° 30'.6 North** Longitude **004° 59'.4 East** and is located in approximately 20.7 metres (68 feet) of water.

SBM Berth No. 3 is situated 3.7 miles Westward of Berth No. 2 in a position Latitude **05° 29'.5 North** Longitude **004° 55'.9 East** and is located in approximately 30.5 meters (100 feet) of water.

The LPG FSO is situated 4.7 miles West-Northwest of Berth No. 3 in a position Latitude **05° 31'.6 North** Longitude **004° 51'.7 East** and is located in approximately 43 metres (**138 feet**) of water. A gas pipeline extends In a North and then Easterly direction from this position. Also an unlit mooring buoy is located 1.3 mile SE of the LPG FSO in position Latitude **05° 30'.8 North** Longitude **004° 52'.5 East**

2.2.2 **Relevant British Admiralty Publications**

British Admiralty Chart BA 3321 shows the layout of the Terminal and is required for all vessels calling at Escravos Terminal.

2.2.3 LPG – FSO Berth Limitations

BERTH LIMITS:

Draft: Not Applicable
 Depth: 138 feet
 DWT: 80,000 m3 Maximum (see + below)
 Water Density: 1025kg/cu.m (sea water)
 Product handled: Ethane, Propane, Butane

+ THE LPG FSO IS DESIGNED TO ACCOMMODATE LPG VESSELS WITH CAPACITY BETWEEN 20,000 AND 80,000 M3.

Note:- Restricted Entry Area 1.5 miles radius at FSO Location.

2.2.4 SBM Berth Capacity

SPM 3	<i>Water depth LAT</i>	<i>Terminal factor</i>	<i>Max LOA</i>	<i>Max displace</i>	<i>Max breadth</i>	<i>Max BCM</i>	<i>Max Draft</i>
Applicable to all tankers including Stena VMAX	30.5 M	603,000 m3	365 M	350,000t	61 M (VMAX 70 M)	183 M	22.5 M
SPM 2	<i>Water depth LAT</i>	<i>Terminal factor</i>	<i>Max LOA</i>	<i>Max displace</i>	<i>Max breadth</i>	<i>Max BCM</i>	<i>Max Draft</i>
Tankers up to 286 kdwt	20.7 M	578,000 m3	365 M	N/ A	61 M	183 M	15.8 M
Tankers from 286 kdwt to 308 kdwt	20.7 M	578,000 m3	365 M	N/ A	61 M	183 M	15.0 M
VMAX (Stena Victory & Stena Vision)	20.7 M	578,000 m3	365 M	N/ A	70 M	183 M	15.5 M

2.2.5 Navigational Aids

Both SBM berths are fitted with a white light, flashing Morse (U) (• • —) every 15 seconds with a range of 3 miles, and a radar reflector. The LPG FSO is fitted with a Racon beacon exhibiting Morse Code letter (B) (•••) on 3 cm radar. The BOP is also fitted with a Racon Beacon

2.2.6 Berth Operations Platform (BOP)

This is a conspicuous steel structure 25.9 meters (85 feet) high in position Latitude **05° 30'.5 North** and Longitude **005° 00'.3 East** and provides the crude oil flow control facilities for the berths. A helicopter deck is located on this structure. Two other platforms (called "BOP Quarters" and "IBP") are located very close to the BOP and are connected to it by walkways.

Also an unlit mooring buoy is located approximately 1.0' NE of BOP in position: Latitude **05° 31.3' North** Longitude **005° 01.0' East**

2.2.7 Tanker Anchorage

The designated anchorage area is located 2.5 miles south-southwest of the Berth Operations Platform (BOP) in position Latitude **05° 28'.5 North** Longitude **004° 59'.0 East**. The depth here is approximately 23 metres, where the seabed is predominantly mud. Unless otherwise instructed by the Terminal, this is also used as a mooring

master/ authorities boarding area

2.2.8 Tugs, Lineboats and Pilot Boat

Vessels berthing at the SBMs and LPG FSO will be assisted by two tugs. The bollard pull of these vessels is approximately 50 tonnes. A Pilot Boat (Surfer) is used for shuttling personnel between vessels, platforms and ashore.

2.3 ENVIRONMENTAL CONDITIONS

Wind and swell are mostly from a southwesterly direction from April to November. The weather is generally good from December to March with light winds, but deteriorates during the wet season from May to October. During the periods of change over between wet and dry seasons (April/May and October/November) severe squalls with violent thunderstorms and winds of up to 60 knots are regularly experienced.

For approximately 75 percent of the year the current sets in a North-Northwesterly direction and for the remainder of the year, South- Southeasterly. The strength of the current varies from 1/2 to 1-1/2 knots and the currents frequently change direction very quickly which can cause a vessel to yaw significantly. The tidal range in the vicinity of the SBM berths is 1.5 meters.

In view of the foregoing, Masters of vessels calling at the Terminal are advised that under no circumstances are engine repairs or the immobilization of the main engines permitted within the Terminal's limits.

2.4 COMMUNICATIONS

2.4.1 **ETA Information**

Vessels bound for Escravos are required to advise their ETA to the Escravos Senior Mooring Master 72, 48 and 24 hours before arrival.

CNL Senior Mooring Master contacts Escravos:

- ✉ **L9esc15@chevron.com** (Preferred means of communication)
- ☎ Phone +234-(0)1-3673370
- ☎ Phone +234-(0)1-2600600 Ext 73370
- ☎ Fax +234-(0)1-2600600 Ext 74725 (Att Senior Mooring Master)
- ☎ GSM phone +234-(0)80 5588 9024
- ☎ Inmarsat phone +871-1772324
- ☎ Inmarsat Fax +871-1772323
- VHF Channels 16 and working channel 10 ("EXPORT 1")

2.4.2 **Pre-Arrival Information Exchange**

The following pre-arrival information is required by the Escravos Senior Mooring Master to assist with prompt inward clearance of the vessel:

- | | |
|---|---|
| 1) Vessel Name & ETA at Escravos | 10) Quantity of cargo required |
| 2) Flag & Port of Registry & Year Built | 11) Destination of cargo to load |
| 3) Name of Master | 12) Nationality of Officers and Crew |
| 4) Summer Deadweight & Arrival displacement | 13) US B/L SCAC Code (if appropriate) |
| 5) N.R.T. & length between perpendiculars | 14) Cargo onboard on arrival (Net Bbls) |
| 6) Last port of call | 15) Maximum Sailing Draft |

- 7) Next port of call
- 8) Owners Name and address
- 9) Arrival drafts

- 16) When will you tender NOR
- 17) VEF (FYI qualified VEF will be applied to ships figures for comparison)

Please confirm the following:

- A) Vessel can maintain 30% SDWT with a minimum forward draft of 5.0 M throughout
- B) Vessel can load and deballast concurrently
- C) IG system operational & tanks <8% Oxygen (tanks will be checked on arrival)
- D) Pilot boarding arrangements on both sides of the vessel in good operational condition
- E) The vessel has no defects that could affect cargo handling, cause pollution or delays
- F) Vessel is fitted with Bow Chain Stopper size 76mm and SWL 200 MT
- G) The ISPS Code Security Level your vessel will be operating at is Level ___
- H) Officer standard single accommodation is available for 2 Mooring Masters
- I) Accommodation is available for 4 Mooring Technicians & 3 Cargo/Pollution Inspectors

For your guidance we require on arrival:

For SBM No 2, a crane or derrick rigged at Port manifold, and for SBM 3, a crane or derrick rigged at Starboard manifold

Pilot/Accommodation ladder combination, 5 feet above the water on lee side

100 metre, strong messenger ready on Foc'sle and messenger aft

Empty mooring spool on Foc'sle winch for heaving SBM pick-up rope

Depending on the SBM to be used either Port or **Starboard** side cargo manifold ready for

2 x 16" 150 ANSI cargo hoses

Current loading rate is about 27,000 bph, approx API 34.0 temp 100 F

When within VHF range, call "Escravos Terminal" on VHF Channel 10 with ETA

2.4.3 **ISPS Port Facility Security Officer**

Escravos Terminal ISPS Security is currently at Level 2, arriving vessels must also be at the same security level. The Port Facility Officer (PFSO) is Emmanuel Momoh, relieved by Ita Enang. The contact telephone number is +234 (0)1-2600600/2668002 (ext. 73420), Fax: +234 (0)1-2600395, Email: L9esc784@chevrontexaco.com, GSM phone +234-(0)8055889010.

2.4.4 **VHF Communications**

Escravos Terminal maintains a 24-hour watch on VHF Channels 16 and 10. Prior to arrival, vessels are usually able to make contact on VHF by calling "Escravos Terminal" at a distance of 20 to 40 miles. Marine VHF Channels 10 and 10A are used for crude tanker berthing and cargo operations, while Marine VHF Channel 77 is used for LPG tanker berthing and cargo operations at the Terminal.

2.5 **CARGO INFORMATION**

The only blend of crude oil loaded at the Escravos Terminal has an average API Gravity of 34.0 and a loading temperature ranging from 90 to 110 degrees Fahrenheit, depending on the season. This is referred to as "Nigerian Crude", "Escravos Crude" or "Nigerian Light Crude".

2.6 APPROACH TO THE ANCHORAGE /MOORING MASTER BOARDING AREA.

2.6.1 When within VHF communication range (20 to 40 miles), Masters of vessels should ascertain berthing prospects from "Escravos Terminal" on Marine VHF Channel 16 or Channel 10.

2.6.2 Should it be necessary to anchor, then the vessel shall proceed to the recommended tanker anchorage area:

Latitude **05° 28'.5 North**

Longitude **004° 59'.0 East**

or as otherwise directed by "Escravos Terminal".

In cases where VHF contact cannot be established, the vessel should proceed to the recommended anchorage position and anchor.

DUE TO THE EXISTENCE OF NUMEROUS SUBMARINE PIPELINES IN THE AREA AND OTHER OBSTRUCTIONS, VESSELS MUST ANCHOR ONLY IN THE DESIGNATED ANCHORAGE POSITION OR AS OTHERWISE DIRECTED BY THE TERMINAL.

2.6.3 Due to the existence of numerous submarine structures, pipelines and other obstructions, unless a Mooring Master is embarked, vessels should not approach closer than 1.5 miles to either SBM or LPG FSO nor enter the area bounded by a line joining the following positions:

- a) **05° 33'.2 North 004° 59'.5 East**
- b) **05° 33'.2 North 004° 51'.0 East**
- c) **05° 31'.0 North 004° 51'.0 East**
- d) **05° 29'.0 North 004° 55'.0 East**
- e) **05° 29'.0 North 005° 00'.0 East**
- f) **05° 32'.5 North 005° 04'.0 East**

VESSELS MUST NOT ENTER THE SBM 2 AND SBM 3 "RESTRICTED ENTRY" AREAS WITHOUT A CHEVRON MOORING MASTER ON BOARD.

2.7 ARRIVAL AT PILOT STATION / ANCHORAGE

2.7.1 A safe means of access to the vessel shall be provided in accordance with the requirements of SOLAS and as described in the paragraph below. Early advice will be given by the Mooring Master or Pilot Boat indicating the side of the vessel that access should be provided.

2.7.2 Nigerian Customs and Immigration Officials will board the vessel on arrival at the earliest opportunity to clear the vessel and issue Free Pratique. This will be the case even if the vessel is arriving from another Nigerian Port. The 'Q' flag must be flown on arrival and prior to Free Pratique being issued.

2.7.3 During night operations the embarkation point must be adequately illuminated to allow the safe approach and boarding of the CNL Mooring Masters, Government Officials and CNL representatives.

2.7.4 Depending on the berthing program two Mooring Masters, four Mooring Technicians; one or two Cargo Inspectors and a Government appointed Pollution Inspector may board the vessel with the Nigerian Customs & Immigration Officials or at a later time.

2.7.5 The "Escravos Terminal Information, Regulations and Conditions of Use" booklet, including the "Conditions of Entry Into and Use of Escravos Terminal, Nigeria" and "Safety Requirements" will be presented to the Master of the vessel and must be understood and receipt acknowledged in writing prior to the departure of the vessel from the Pilot Station / Anchorage and before commencement of berthing operations.

2.7.6 The vessel's Notice of Readiness will only be received provided the Mooring Master is satisfied that the vessel is in all respects ready to moor and load or discharge, as appropriate. Notice of Readiness will not be accepted during a period when the Port is closed due to adverse weather or when a vessel arrives before the date it is nominated to load or discharge, as appropriate.

2.7.7 The foregoing paragraph notwithstanding, in no event shall a Notice of Readiness, whether previously received or not, be valid or binding on the Terminal unless the vessel, her tanks and equipment, are in fact, in every respect ready to load or discharge the cargo, as appropriate.

2.8 PILOTAGE

- 2.8.1 The normal Mooring Master boarding area for the Escravos Terminal is in position:
Latitude **05° 28'.5 North**
Longitude **004° 59'.0 East**
or as otherwise agreed between the Mooring Master & the vessel's Master on arrival.

PILOTAGE IS COMPULSORY FOR BERTHING AT ESCRAVOS TERMINAL

- 2.8.2 If in the opinion of the Mooring Master, the pilot/accommodation ladder is not safe; the Mooring Master may refuse to board and thus cause a delay to the ship. Such delay would be for the ship's account.
- 2.8.3 During the approach to the berth, while mooring, secured on the berth or LPG FSO and whilst un-berthing, the vessel's anchors MUST be secured by stoppers with the pawl bar down and wire or chain lashings.
- 2.8.4 All vessels maneuvering within the area of the SBM Berths or LPG FSO will be under the advice of the Mooring Master, with the understanding that the Master of the vessel being maneuvered shall remain solely responsible for the safety and proper maneuvering of the vessel. The Master or a qualified Navigating Officer must be on the bridge at all times while the vessel is maneuvering and mooring.
- 2.8.5 Two CNL Mooring Masters, together with three Mooring Technicians, will remain on board throughout the vessel's stay on the berth to coordinate the mooring and transfer operation. In addition one or two Surveyors and a Government appointed Pollution Inspector will remain onboard as well. Suitable and adequate accommodation shall be provided for them onboard the vessel.

2.9 MOORING/UNMOORING ARRANGEMENTS

- 2.9.1 Mooring and unmooring operations at the crude oil berths will be undertaken day or night under suitable weather conditions. Mooring operations at the LPG FSO will be carried out during the hours of daylight only; unmooring will be carried out during day or night.
- 2.9.2 Line handling during mooring and unmooring, and hose handling are performed by the vessel's crew with an experienced Deck Officer, under the advice of the Mooring Master and with assistance from the Mooring Technicians.
- 2.9.3 Prior to commencing mooring operations vessels must have the following equipment ready on the Foc'sle:
- 1 strong, buoyant messenger rope approximately 200 meters long
 - 2 buoyant mooring ropes, 220 metres long by 65mm diameter
 - Crowbar
 - Sledge Hammer
 - Large Axe and sharp knife
 - Powerful Safety Flash Light (at night)
 - Pail of grease
- 2.9.4 Prior to commencing mooring operations vessels must have the following equipment ready on the poop deck:
- 1 buoyant mooring rope, 220 metres long by 65mm diameter
 - 2 heaving lines
 - Pail of grease

- 2.9.5 One drum of the appropriate forecastle winch should be kept empty for receiving the mooring pick-up line. This is 450 feet long, 10 inch circumference rope.
- 2.9.6 The port **or starboard derrick or crane, depending on the SBM**, should be rigged ready to lift the mooring equipment box from the boat. Vessels berthing at LPG FSO will require starboard crane to be rigged.
- 2.9.7 When the vessel is within reasonable distance from the SPM, the ship's messenger line will be carried by the mooring launch and connected to the mooring pick-up line which is attached to the mooring hawser. This line will then be heaved until the 76 mm. chafe chain is brought onboard. The chafe chain will then be secured in the vessels chain stopper. The mooring hawser is a 21 inch circumference Polypropylene double braided line of grommet construction, with a minimum theoretical breaking strain of 544 tons.
- 2.9.8 **ONLY VESSELS FITTED WITH AN APPROVED AKD TYPE 200 MT SWL CHAIN STOPPER WILL BE BERTHED AT THE ESCRAVOS TERMINAL. THE USE OF SMIT BRACKETS OR ANY OTHER MEANS OF SECURING THE CHAFE CHAIN IS NOT PERMITTED.**
- 2.9.9 Power must be on the windlass and manifold deck winches continuously while the vessel is at the berth.
- 2.9.10 Before, during or after the mooring operation, a tugs line will be heaved onboard the poop deck and make fast to a suitable set of bitts. The tug will remain secured to the vessel's stern though out the time at berth, to maintain the vessel at a constant distance from the SBM or LPG FSO.

2.10 HOSE HANDLING

TANKER MANIFOLD ARRANGEMENTS MUST COMPLY WITH THE LATEST OCIMF PUBLICATION "RECOMMENDATIONS FOR OIL TANKER MANIFOLDS AND ASSOCIATED EQUIPMENT".

- 2.10.1 For a vessel berthing at **SBM 3**, crew should prepare **TWO** 16 inch, ANSI 150 manifold flanges, on the **STARBOARD** side for connection of the two floating hoses. In addition to this, the hose handling derrick/crane should be fully operational (Min SWL 15 Ton) and the ship's crew available to assist the mooring master and technicians with the hose connection.
- 2.10.2 For a vessel berthing at **SBM 2**, crew should prepare **ONE** 16 inch, ANSI 150 manifold flange, on the **PORT** side for connection of the single floating hose. In addition to this, the hose handling derrick/crane should be fully operational (Min SWL 15 Ton) and the ship's crew available to assist the mooring master and technicians with the hose connection.
- 2.10.3 A clockwork pressure recorder will be connected at the cargo manifold **in lieu of a ship's pressure gauge**. This is to permanently record the loading pressure and any pressure surges. At the end of loading the Master will be asked to endorse the printout. **Failure to accommodate this requirement will prevent the vessel from loading at the Terminal.**
- 2.10.4 Care should be taken during the hose handling operations in order to avoid serious damage to the hoses and associated equipment by contact with plate edges, rails, etc.

2.11 DEBALLASTING OPERATIONS

- 2.11.1 **ALL VESSELS ARE REQUIRED TO ARRIVE WITH SUFFICIENT SEGREGATED OR CLEAN BALLAST OR CARGO TO BE ABLE TO MAINTAIN A MINIMUM OF 30 PERCENT OF THE VESSEL'S SUMMER DEADWEIGHT THROUGHOUT THE BERTHING, CARGO/DEBALLASTING AND UNBERTHING OPERATION AND TO MAINTAIN SUITABLE TRIM AND KEEP THE VESSELS FOREFOOT SUBMERGED, THUS AVOIDING THE POSSIBILITY OF THE HOSE BECOMING TRAPPED UNDER THE BOW.**

Only vessels which can achieve loading and deballasting simultaneously will be accepted at Escravos Terminal. Vessels must maintain a minimum of two valve separation between their ballast and cargo systems whilst deballasting.

DEBALLASTING OPERATIONS ARE TO COMPLY STRICTLY WITH MARPOL REGULATIONS.

- 2.11.2 Escravos Terminal has no dirty ballast reception or slop disposal facilities, therefore export vessels are required to arrive with segregated or clean ballast suitable for discharging directly to the sea. Vessels arriving with ballast unsuitable for discharging directly to the sea will be rejected for loading.

A representative sample of the vessels ballast water may be collected and forwarded to the Terminal for analysis.

- 2.11.3 It is strictly against the law to pollute the waters of Nigeria and any Master, his vessel and Owners may be subject to prosecution by the Nigerian Authorities if pollution does occur.

A NIGERIAN GOVERNMENT REPRESENTATIVE WILL REMAIN ON BOARD THROUGHOUT THE VESSELS STAY TO MONITOR OPERATIONS WITH REGARD TO POLLUTION.

- 2.11.4 All vessels are cautioned to keep a continuous watch on the floating hose string, as it is possible, under certain conditions, for the hose to become trapped under the fore-foot of the vessel.

2.12 TRANSFER OPERATIONS

- 2.12.1 Two Mooring Masters will remain on the tanker throughout the transfer operation and will coordinate all activities onboard the tanker with the Terminal. The Mooring Masters will supply the vessel with a portable VHF radio for communications with the Mooring Master. The Mooring Master and Terminal can be contacted at any time, for whatever reason, on the portable VHF provided using VHF Channel 10A.

- 2.12.2 During the hours of darkness all available approved floodlights shall be used to illuminate the vessel and surrounding water to facilitate the detection of oil and generally assist in the transfer operation. Vessels are advised that failure to provide sufficient lighting could result in the transfer operation being suspended during the hours of darkness. Such delays would be for the vessel's account.

The vessel shall, if necessary, provide approved portable lighting over the bow to illuminate the mooring and SPM during the hours of darkness.

- 2.12.3 The maximum loading rate during the crude oil transfer operation will be approximately 30,000 barrels per hour; however the normal loading rate is approximately 27,000 barrels per hour.

The vessel may request any loading rate down to a minimum of 15,000 barrels per hour. This is also the normal initial loading rate. A vessel must give twenty minutes notice for a request to change the loading rate.

In no circumstance will the tanker be requested to load at a faster rate than that required by the Master.

- 2.12.4 For importing tankers, the maximum discharge rate to be expected is approximately 12,000 barrels per hour.
- 2.12.5 Vessel and Terminal figures are normally compared at two hourly intervals. The comparison is made using Gross Barrels at 60F.
- 2.12.6 At all times during transfer operations, a responsible Deck Officer shall be in charge of operations, either on deck or in the control room. On vessels with a central control room, a deck watch in contact with the control room is required to continuously patrol the cargo deck and monitor the manifold area.
- 2.12.7 At all times, while the vessel is moored to the SBM, a deck watch, in contact with the responsible Deck Officer, shall be stationed on the Foc'sle to monitor buoy position (relative to tanker) and weather.

2.13 **COMPLETION OF LOADING**

- 2.13.1 On completion of loading the crew should be standing by for disconnecting the hoses. In addition the Cargo Surveyors should be standing by to commence gauging. The engines should be brought to immediate readiness and the fire wires recovered.
- 2.13.2 Normally vessels loading at Escravos are required to unmoor and anchor or drift after loading while awaiting documents.
- 2.13.3 The pilot ladders and accommodation ladders should be adjusted as required by the Mooring Master.

2.14 **SERVICES**

- 2.14.1 Bunkers are not available from Escravos Terminal.
- 2.14.2 All vessel requirements will be handled by the vessel's Agent.
- 2.14.3 Limited medical facilities are available in an emergency.
- 2.14.4 Repairs will not be permitted when the vessel is berthed. Repair facilities are not readily available.
- 2.14.5 No shore leave is granted at the Terminal.
- 2.14.6 Masters and Owners are advised that crew changes are only permitted in emergency situations and when personnel involved hold all the necessary valid certificates and documents.

PART 3

TERMINAL SAFETY REGULATIONS

3.0 **SAFETY REGULATIONS**

Nothing in these regulations will relieve Masters of their responsibilities in observing the normal safety, fire prevention and security precautions. CNL Mooring Masters are authorized to advise and request Masters to take additional measures to ensure safe operations should circumstances so require. CNL Mooring Masters are also authorized to suspend oil transfer operations in the event of an infringement of safety regulations or if any other hazardous situation is encountered.

The following safety regulations have been developed in an effort to reduce the possibility of an incident involving fire, explosion or other hazard.

3.1 **SAFETY REQUIREMENTS**

Masters will be given the CNL Safety Requirement Letter by the CNL Mooring Master prior to commencement of berthing operations and a signed acknowledgment will be required.

3.2 **SAFETY CHECK LIST**

On completion of berthing and prior to commencement of Oil Transfer Operations, the Escravos Terminal Safety Check List will be completed following a joint inspection by the CNL Mooring Master and a responsible deck officer. The CNL Safety Check List is based on the recommendations of the "International Safety Guide for Oil Tankers and Terminal" (ISGOTT).

3.3 **INERT GAS SYSTEMS**

All crude oil tankers scheduled to load or discharge at the Escravos Terminal, should arrive with cargo tanks fully inerted with Oxygen levels at 8 percent or below by volume and pressurized as required by the SOLAS Convention.

Normally cargo tanks under pressure will not be inspected by the Terminal Representative provided a declaration is signed by the Master prior to the commencement of oil transfer operations, confirming that all compartments of the vessel have been prepared in accordance with the in all respects as required for the cargo to be transferred.

THE CNL MOORING MASTER WILL MAKE A RANDOM CHECK OF CARGO TANK OXYGEN LEVELS BEFORE PROCEEDING TO THE BERTH.

3.3.1 **Tank Inspections, Gauging, Sampling Water dips and Temperatures.**

Should it be necessary for cargo tanks to be inspected, then it should be done on a tank by tank basis. The system shall be maintained at a pressure of about 200 mm. water gauge except for the individual tank to be opened which, if possible, is to be isolated from the system and the sighting port opened with care. On completion of inspection the tank shall be secured and re-pressurized. The next tank is not to be isolated and opened until the proceeding tank is secured and open to the Inert Gas System.

3.3.2 **Failure of Inert Gas System.**

IF AT ANY TIME THE INERT GAS SYSTEM FAILS DURING THE TRANSFER OPERATION OR CARGO TANKS ARE NOT MAINTAINED IN THE PRESCRIBED CONDITION, ALL OPERATIONS WILL BE SUSPENDED UNTIL EITHER THE INERT GAS SYSTEM IS AGAIN OPERATIONAL OR THE TANK OXYGEN ATMOSPHERES ARE AT 8 PERCENT OR BELOW AS REQUIRED BY SOLAS. THE COST OF ANY DELAYS SO INCURRED WILL BE FOR THE VESSELS ACCOUNT.

3.4 **SHIP/SHORE COMMUNICATIONS**

Communications between the vessel and the Terminal will be by portable VHF radios provided by CNL. These shall be tested and found satisfactory before transfer operations commence. Prior to the commencement of operations, the vessel's Chief Officer, or another Officer designated by the Master, and the CNL Mooring Master shall confirm with each other that the communication system and signals for controlling the operations are understood by all personnel involved. All routine communications with the Terminal should be carried out by the Mooring Master using Marine VHF Channel 10A on the portable VHF radios.

The vessel's main VHF unit will be used for emergency communications on Marine VHF Channel 10 in the event the CNL portable radio ceases to operate satisfactorily.

3.5 **OPERATING PROCEDURES**

Procedures for cargo and ballast operations shall be agreed in writing between the CNL Mooring Master and the vessel's Master and/or Chief Officer and confirmed in the Ship/Shore Safety Checklist.

3.6 **EMERGENCY PROCEDURES**

As required by the Escravos Terminal Safety Check List, the Master of the vessel and the CNL Mooring Master should discuss and agree upon the action to be taken in the event of an emergency or a fire on board the tanker, or at the terminal. This should include means of communication in addition to emergency procedures. The Master of the vessel shall provide the CNL Mooring Master with a copy of the vessel Emergency Organization and Contingency Plan.

3.6.1 **Emergency stop procedure**

In the event of an emergency, cargo must be stopped, using the following procedure:-

Using either the portable radio provided by the Mooring Master, or on Marine VHF Channel 10 (ship's VHF) call;

"Escravos tank farm control emergency stop" x 3 - repeat until acknowledged.

Having stopped the cargo, you should contact the Mooring Master to allow him to resume all communications with the Terminal.

3.7 **FIRE PRECAUTIONS**

The vessel's fire fighting appliances, including main and emergency fire pumps, shall be kept ready for immediate use and pressure shall be maintained at all times on the fire main whilst the vessel is in the berth.

Before operations commence, at least two fire hoses with jet/fog nozzles shall be laid out on the tank deck, connected to the fire main and tested as required by the CNL Mooring Master. The two fire monitors immediately adjacent to the manifold should be elevated and made ready for immediate use. A fire pump shall maintain pressure on the fire main and be ready for immediate use. Two portable fire extinguishers, preferably of the dry chemical type, shall be available in the proximity of the manifold area.

Should fire occur on the vessel, the Master or responsible ship's officer shall make an immediate signal by a continuous blast on the ship's whistle, sound the general alarm and place the vessel's engines on standby. All transfer operations shall cease immediately as per Paragraph 3.6.1 above.

The tanker shall be solely responsible for and shall be capable of fighting, any fire on board, without assistance from CNL sources.

3.8 **CONDITIONS TO BE OBSERVED ON BOARD THE TANKER DURING CARGO TRANSFER/BALLASTING OPERATIONS**

- 3.8.1 A responsible, English speaking, vessel's Officer is required to be on deck or in the Cargo Control Room at all times.

Whilst moored at the SBM, the vessel's main engines must be kept on a minimum of 10 minutes notice. Also, the deck machinery should be constantly available.

- 3.8.3 During the vessel's stay at the berth, a continuous Deck Watch is to be maintained to ensure the mooring hawser and cargo hoses are under observation at all times. To facilitate this, the Master shall post one man forward, with a vessel's portable radio, so that he is in contact with the O.O.W. (one Mooring Technician will also be stationed forward with direct communications to the Mooring Master). In addition, a further man is to patrol the vessel with a vessel's portable radio.

In addition to their other duties the Deck Watch should watch for:
Bad weather and electrical storms approaching (especially from March to November).
Oil pollution from the vessel, the SBM, associated hose, or from any other source.
The vessel moving towards the SBM (see accompanying poster).

IN ANY OF THE ABOVE SITUATIONS, THE MOORING MASTER MUST BE INFORMED IMMEDIATELY.

- 3.8.4 Towing-off wires shall be made fast to bitts as far forward and aft as possible on the **opposite side to hose connection**. The wires shall be in good condition, at least 28 mm. diameter, as per OCIMF recommendations, and secured with at least five turns or have the eye on the bitts. **Unless directed by the mooring master**, the outboard eye shall be maintained at a height of between 1 and 2 meters above the water **with a heaving line forming a loose bight**.
- 3.8.5 All doors, portholes and openings leading from or overlooking the main deck to accommodation, machinery spaces (excluding pump room) and forecabin shall be kept closed. Cargo control room doors opening on to or above the main deck may be opened momentarily for access.
- 3.8.6 All ventilators through which gas can enter accommodation or machinery spaces shall be suitably trimmed. Air conditioning units shall be stopped or operated in the recirculation mode. Window type air-conditioning units shall be electrically isolated.
- 3.8.7 The venting of the vessel's tanks shall only take place through the fixed venting system.

- 3.8.8 Only "Closed Loading" is permitted and all sighting and ullage ports are to remain closed.
- 3.8.9 If for any reason there is poor dispersion which results in an accumulation of gas on or about the decks, loading shall be stopped or the loading rate reduced at the discretion of either the CNL Mooring Master or the responsible ship's officer.
- 3.8.10 The vessel shall by day fly Flag "B" of the International Code, and by night exhibit an all round red light.

3.9 **SMOKING**

Smoking is strictly prohibited while at the berth or moored to the LPG FSO, except in designated areas which have been jointly approved by the CNL Mooring Master and the vessel's Master and "Smoking Room" notices duly posted.

3.10 **MATCHES AND LIGHTERS**

The carrying and use of matches and lighters is prohibited on board the tanker while at the berth except under controlled circumstances in the designated smoking areas.

3.11 **PORTABLE VHF SETS, LAMPS AND FLASHLIGHTS**

Portable VHF sets, lamps, flashlights or other electrical devices, shall not be used unless approved as intrinsically safe. The use of portable electrical lamps and equipment on extension cords or wandering leads is prohibited in any cargo or adjacent ballast space, pump room, cofferdam, forecastle, bunker compartment, hold or anywhere over the cargo tanks. Portable domestic radios, photographic flash equipment, video cameras, portable electronic calculators, tape recorders, mobile phones and any other battery powered equipment not approved as intrinsically safe must not be used on the tank deck area of the vessel nor in any place where hazardous vapors may be encountered.

3.12 **MOVEMENT OF TUGS, WORKBOATS AND OTHER CRAFT.**

During cargo transfer operations no craft shall be allowed alongside the vessel unless the approval has been given by the CNL Mooring Master and agreed by the Master of the tanker.

3.13 **REPAIR WORK**

A vessel secured to the buoy shall be maintained in a state of readiness for vacating the berth under full engine power at short notice. **Therefore, no repairs will be permitted at the berth.** The testing of any electrical equipment, including radar and radio is prohibited unless the permission of the CNL Mooring Master has been granted.

Tank cleaning (except crude oil washing) and gas freeing shall not be carried out while at the berth. Chipping and scraping on the deck or hull is not permitted.

NO WELDING IS PERMITTED, IN ANY LOCATION ON BOARD, WHILE THE TANKER IS AT THE BERTH.

3.14 **PREVENTION OF SPARKING AND EXCESSIVE SMOKE**

Soot blowing and excessive smoke are prohibited and immediate steps shall be taken to eliminate any sparks from funnels. All vessels shall be fitted with funnel flame arrestors.

3.15 **AVOIDANCE OF POLLUTION**

During cargo transfer operations all scuppers shall be effectively plugged, fixed and portable manifold oil containment shall be in place and no leakage or spillage of oil, or water which can possibly contain oil shall be allowed to escape over board.

Scupper plugs may be removed to drain off accumulation of water periodically and replaced immediately after the water has been drained off. Manifold containment should be drained before transfer operations commence.

ANY SPILLAGE OR LEAKAGE MUST BE REPORTED IMMEDIATELY TO THE CNL MOORING MASTER.

Should oil spillage occur during the transfer or ballasting operations, then all such operations shall cease immediately and action taken to control and contain the spillage. Cleaning up operations shall start immediately, and transfer operations will not be resumed until remedial action has been completed to the satisfaction of the CNL Mooring Master. No materials of any kind shall be thrown overboard.

3.16 **GALLEY STOVES AND OTHER COOKING EQUIPMENT**

The use of galley stoves and other cooking equipment (with the exception of oil fired stoves) shall be permitted, provided the Master and CNL Mooring Master agree their use.

3.17 **TRANSMITTING AERIALS**

When the vessel is in the berth, the main transmitting equipment, including secondary/emergency transmitters, shall be switched off and have their aerials grounded. Satellite Communications equipment may only be used with the approval of the CNL Mooring Master.

3.18 **TANK LIDS**

All cargo tank lids, ullage and sighting ports shall be securely closed before berthing and unberthing operations commence. During cargo transfer operations all cargo, ballast, bunker lids and tank washing openings shall be kept securely closed.

3.19 **UNUSED CONNECTIONS**

All unused cargo and bunker connections shall be properly blanked, fitted with a gasket and bolted with a bolt in every hole. Stern cargo pipelines (if fitted) shall be isolated forward of the aft accommodation by blanking or removal of a spool piece.

Any part of the COW or slop transfer system which extends into machinery spaces shall be securely blanked and isolated on the tank deck.

3.20 **SEA AND OVERBOARD DISCHARGE VALVES.**

During Cargo transfer operations, sea and overboard discharge valves which are connected to the cargo system, shall be closed and sealed with numbered seals. Removal of seals and opening of valves will only be permitted if the vessel is required to take ballast into cargo tanks, in order for the vessel to comply with the Terminal requirement to maintain 30 percent of SDWT at all times. These seals shall be removed only with the approval of the CNL Mooring Master. A careful watch shall also be maintained to ensure that oil is not leaking through sea and overboard discharge valves.

3.21 **BREAKDOWN OF COMMUNICATIONS**

In the event of a total breakdown of radio communications during cargo transfer operations, then the operation shall be immediately suspended and not resumed until satisfactory communications are re-established.

3.22 **EMERGENCY ESCAPE**

Means for emergency escape shall be provided on the lee side of the tanker. For security reasons such means is to be stowed at deck level in such a manner as to be ready for expeditious use in an emergency. Such means shall be of adequate length to reach the water at all times.

3.23 **RADAR, SATELLITE COMMUNICATION TERMINAL'S AND CLOSED CIRCUIT TELEVISION.**

The use of this equipment for any purpose is prohibited during the period that the export vessel is in the berth, except with the approval of the CNL Mooring Master. (See 3.17)

3.24 **CARGO TANK VENTING**

IGS venting will be permitted during transfer operations and this should be done via the IGS vents. For gauging, sampling, etc., controlled release of Inert Gas will be permitted if found necessary. (See 3.3)

3.25 **CONDITIONS REQUIRING IMMEDIATE ACTION**

Cargo transfer and ballasting operations shall not be started, or if started, shall be discontinued by either the Master / responsible officer of the vessel or CNL Mooring Master, when any of the following conditions are noted:

- a) On the approach of or during electrical storms, heavy rainstorms or periods of high winds. All IGS vents are to be closed and the vessel maintained in an inerted condition, with tanks pressurized as required by S.O.L.A.S.
- b) If a fire occurs on the vessel, at the Terminal, on the buoy or any craft in close proximity.
- c) If there are insufficient competent personnel on duty to safely handle operations in progress or to handle an emergency situation.
- d) If a spill occurs either aboard the vessel or on the buoy, if cargo hose fails, or if serious leaks are encountered at flanges and connections.
- e) If any other emergency situation arises which, in the opinion of the vessel's responsible officer or the CNL Mooring Master, constitutes a potential hazard to the ship or facilities.
- f) If there is insufficient main deck lighting and or flood lights, to adequately illuminate the deck area and surrounding sea surface.