

TFB – TERMINAIS FLUVIAIS DO BRASIL

PORT INFORMATION BOOKLET



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1.0 INTRODUCTION

TFB - TERMINAIS FLUVIAIS DO BRASIL, is located in the city of Itacoatiara, Amazonas state, bounded the Amazon River. TFB has a large capacity of oil storage of 103.000 cubic meters, typically transfers the storage oil to other points

TFB is part of a DISLUB EQUADOR group.

Reference in this booklet (hereinafter referred to as the “Terminal Regulations”) to “Terminal”, “Facility”, “Facilities”, “Station” or any one of these words, means collectively all of the real and personal property comprising the oil storage of TFB located in Itacoatiara, whether now or hereafter existing, including, but not limited to land, causeways, jetties, berths, piping, storage tanks, buildings, equipment, and all other facilities provided by TFB for handling fuel oil and performing related activities.

These Terminal Regulations are intended to provide information to owners, operators, managers, charterers and Masters of tankers with regard to safety regulations, general conditions facilities and available services at the Terminal.

TFB S/A Integrated Management Policy (ISO 9001; ISO 14.001; ISO 45001 and NBR 16.001)

Port operations service, storage and movement of liquid bulk: Petroleum-derived fuels and biofuels adopting the following principles:

- Customer satisfaction meeting their requirements;
- Continuous improvement of the effectiveness of the Integrated Management System;
- Prevention of accidents, injuries, diseases and occupational health and safety risks, environmental pollution and various impacts;
- Compliance with current legislation and regulatory standards and other requirements by the Organization:
 - Commitment to the promotion of Sustainable Development;
 - Commitment to the following principles of Social Responsibility: Accountability, transparency, ethical behavior, respect for the interests of stakeholders, international standards of behavior and human rights.

2. DISCLAIMER

The information contained in these Terminal Regulations is believed to be correct at the time of issue; however, TFB does not guarantee the accuracy of the information and accepts no liability for any damage, delay or loss resulting from any inaccuracy contained herein.

3. RIGHT TO SUSPEND OPERATIONS

TFB Terminal and vessels using the terminal are expected to operate in a safe, non-destructive and environmentally friendly manner. TFB reserves the right to suspend operations and proceed in the removal of any vessel from the Terminal under the following circumstances:

- * For a breach of or default under, the Terminal guidelines.
- * For defects in, on or associated with the vessel that may present a hazard at or to the terminal.

* Where unsatisfactory performance of the vessel causes significant inefficiencies and constraints on terminal operations.

* Where, for whatever reason, the safety of the terminal, personnel, environment or the vessel causes concern.

Limitation of Liability

For the purposes of this section, the following terms have the following meanings:

“Claims” means any claims, demands, damages, costs, expenses (including, without limitation, legal fees), fines, penalties, losses, liabilities, actions or causes of action, whether in law or in equity.

“Vessel Parties” means the vessel, its Master, its owners, its charterers, its operators, its managers, its agents, its contractors and subcontractors or the contractors and subcontractors of either one of them (including, without limitation, pilots) and its crew; personnel, servants and any person whatsoever on board such vessel from time to time; and, any other person who enters upon the Terminal for the purpose (directly or indirectly) of conducting business with, or on behalf of, the vessel, and “Vessel

Parties” means any one of them.

IN NO EVENT SHALL TFB (their employees, servants, contractors or agents) BE LIABLE for Claims incurred by a Vessel Party, including without limitation, with respect to injury to, or death of, persons or damage to, or destruction of, property due to any cause whatsoever, including without limitation the negligence or gross negligence of TFB arising directly or indirectly from the use by the Vessel Parties of the Terminal, or due to the refusal to load all or part of a nominated shipment, delay to or suspension of loading or other operations.

In addition, each of the Vessel Parties (shipowner, charterer, operator...) agrees that it shall indemnify TFB and hold each of TFB harmless from and against:

- (a) Any Claims by or in respect of a Vessel Party; and
- (b) Any Claims by or in respect of any other person, arising directly or indirectly from the use by the Vessel Parties, or any one of them, of the Terminal, or due to the refusal to load all or part of a nominated shipment, delay to or suspension of loading or other operations. Each of the Vessel Parties agrees that the obligation to indemnify contained herein is joint and several.

4. GENERAL INFORMATION

4.1. LOCATION AND LAYOUT

The TFB, hereafter referred to in this booklet as the Terminal, is located at the Amazon River in approximate position 3° 09' 15, 88" S e 58° 25' 84, 82" W.

TFB has been operating for 5 years and is a critical asset to supply oil to the province region. The marine facility was constructed in 2013 and consists of a steel floating deck supported by 20 mooring piles. The unloading platform has equipped with eight units of Yokohama fenders aligned along a crescent to distribute berthing forces.



Terminal Layout

The loading and unloading lines have an emergency (pneumatic actuated shut-off valve). The 12" and 14 "valves, are located in the midpoint between the shore tanks farm and the floating pier.

In case of emergency, the operator on the floating pier, or in the control room, when realizing pressure drop or trace of oil in the river, will stop the transferring operation immediately.

The valve takes approximately 15s to close from an open position; the volume contained in this line is 34, 5 cubic meters.

Tankage

Tank	Capacity (m3)	Operating Max (m3)	Operating Min (m3)	Elevation (m)	Elevation Top of Tank (m)
1	10738	10114	472	15,15	15,37
2	5240	5000	235	15,15	15,25
3	5264	5000	233	15,15	15,24
4	5279	5003	235	15,15	15,30
5	5310	5002	245	15,15	15,37
6	5269	5003	240	15,15	15,29
7	5264	5003	235	15,15	15,25
8	5289	5002	235	15,15	15,31
9	2371	2242	122	12,8	12,83
10	2371	2241	121	12,8	12,83
11	5235	5003	238	15,15	15,30
12	5265	5001	238	15,15	15,27
15	11019	10272	307	15,86	15,96
16	11018	10347	306	15,98	16,07
17	11031	10652	320	16,43	16,55
18	11018	10639	307	16,43	16,54


4.2. ENVIRONMENTAL SENSITIVITY

Amazon River is home to a wide variety of wildlife including birds, fish and marine mammals.

Protection of the environment is in the interest of all stakeholders and vessel operators are expected to make it one of their top priorities.

4.3. VESSEL'S ACCEPTANCE CRITERIA

TFB Group must approve all tankers nominated for calling at the Terminal prior to being accepted at the Terminal Operations Department.

All tankers calling at the Terminal must fully comply with all applicable international conventions, regulations and accepted industry standards including the most recent edition of the International Safety Guide for Oil Tankers and Terminals (ISGOTT).

The Terminal does not have dirty ballast reception facilities available. Tankers calling at the Terminal will need to be able to meet the requirements of the International Maritime Organization's (IMO) International Convention for the Prevention of Pollution from Ships (MARPOL 73/78) Annex 1, Regulation 13(2) and/or any amendments to same.

All tankers calling at the Terminal must be capable of closed discharging/loading and closed gauging. And, provide to the Terminal the particulars of the ship/shore interface including manifold configuration, connection spacing and flanging specifications.

4.4. LOCAL TIME

TFB Standard Time, which is minus 4 from Greenwich Mean Time (GMT).

4.5. Vessel's Agency

Tankers calling at the Terminal are required to avail of Maritime Agency, they are usually established in Itacoatiara or Manaus.

4.6. SMOKING

Smoking is strictly prohibited on board tankers alongside, on jetties and within the TFB Terminal restricted zone, except in those enclosed spaces on board ship specifically designated by the Master as "Smoking Areas".

4.7. IMPORTANT CONTACT INFORMATION

Entity	Contact Name	E-mail Address	Phone Nr.
Terminal			
Jetty Control Room	Operator	tfb.operacoes@dislubequador.com.br	55(92)99158-6125
Security Main Gate	Reception desk	-	55(92)3521-9300
PFSO	Ednickson Fernandes	ednickson.fernandes@gde-br.com	55(92)99214-7419
General Manager	Paulo Ferreira	paulo.ferreira@gde-br.com	55(92)98110-3333
Operations coordinator	Adenildo Bentes	adenildo.bentes@gde-br.com	55(92)99181-6493
Operacional Manager	Omayra Silva	omayra.silva@gde-br.com	55(92)99394-9029

Services			
North Star Maritime Agency		amazon@nsshopping.com.br	55(92)3071-9592; 55(92)3302-1775; 55(92)99308-6826; 55(92)99308-6989; 55(92)99308-9459.
Pilotage Zone 1 UNIPILOT	-	gerencia@unipilot.com	55(91)3223-0844 55(91)3223-5077 55(91) 99140-6947
Pilotage Zone 2 Manaus Pilot	-	plantaio@manauspilots.com.br	55(92)3664-6634
Pilotage Zone 2 PROA Pilot	-	proa@proamanaus.com.br	55(92)3624-0041 55(92)3521-2073
Fire Department	-	-	55(92) 193 55(92)99487-9536
Police	-	-	55(92) 190 55(92)3521-3190
Local Ambulance	-	-	55(92) 192
Local Medic Clinic	-	-	55(92)3521-4561
Environmental nr.	-	-	55(92)9187-3313
Maritime Authority	-	-	55(92)3521-1131

5. METEOROLOGICAL INFORMATION

5.1. TEMPERATURE

Air diary medium temperatures vary throughout the year with ranging from 26°C in winter to 37°C in summer. Summer months present high humidity level and UV sunrise harsh environmental conditions; therefore, the crewmembers need to be adequately prepared using an adequate skin sunny protector.

5.2. WIND DIRECTION

Wind class	Direction			% of occurrence	Period of a day
1	0	45	N-NE	Rare	00:00-05:00
2	45	90	NE-L	58%	18:00-07:00
3	90	135	L-SE	42%	08:00-17:00
4	135	180	SE-S	Rare	10:00-11:00

5.3. VISIBILITY

During the months of February, March and April (rainy period), the visibility can be reduced but does not cause major impact to the inland navigation.

5.4. WAVES

The Terminal is located in inland waters – Amazon River - and there is not significant waves variation during all period of year.

5.5. TIDES AND CURRENTS

Tidal variation at the Terminal is approximately 12 meters and occurred at each ½-year period following the Amazon River behavior – from December to July is a flooding period and from

June to November is an ebbing period.

The maximum river current variation occurs during the flooding period and can raise 3.1 miles as a medium limit.

6. COMMUNICATIONS

6.1. Pre-arrival

Masters will communicate with local authorities as indicated by the agency before arrival and provide the information as requested and at least the following.

- Please advise any requirements in due time.
- Your vessel is required to report the indicated information prior to arrival. Failure to give the proper notice or information may result in your vessel being delayed receiving clearance to enter Brazilian waters.
- Please advise daily ETA's for the pilot station as indicated by the maritime agency. Please state if time is local or GMT.
- Oil tankers are expected to berth external side alongside. Oil barges are expected to berth external or internal side alongside as disposal. In the absence of ships, the four berths may be occupied by Tank Barge.
- The following documents will be required on arrival to the berth or to anchorage: last port clearance, ship's stores, crew effects, and crew list. IMO or Company forms are acceptable.
- Your vessel will have to supply own gangway.
- Please note that Brazilian Customs may board your vessel for a random search. Please ensure that ship's stores and crews effects declaration documents are accurate as they may audit this also. Any variance in these documents could result in a penalty being issued to your vessel or crew.
- Please advise the amount of cargo you have onboard, and the amount you will be discharging. We will need a copy of the Bill of Lading before arrival.

6.2. COMMUNICATIONS & TRAFFIC SERVICES

For the traffic & communications in the Amazon River and the area bounded by the Terminal should be used the call channel 16. The TFB operates using the channels 20,60,65,66,73 e 74.

6.3. TERMINAL COMMUNICATIONS

- TFB maintains watch on VHF Channel 16 prior to vessel arrival and will switch to VHF Channels 20,60,65,66,73 e 74 as vessel approaches the Terminal dock.
- Upon completion of vessel berthing, Jetty Control (dock) will maintain watch on VHF Channel 14. In addition, as a secondary mean of communication the verbal info change will be

formalized.

- The pilotage maintains watch on VHF Channel 16, which will be used as an emergency channel.

Note: any failure in the communication process will require the immediate interruption of operations.

7. NAVIGATION AND MOORING OPERATIONS

7.1. TRAFFIC SEPARATION SCHEME

There is no Traffic Separation Scheme for the Terminal.

7.2. RIVER PILOTS

Pilotage is compulsory for berthing and unberthing of oil tankers at TFB Terminal.

While the following guidelines are to be taken into consideration regarding the berthing and unberthing of vessels at the TFB Terminal, the ultimate decision will rest with the Pilot in consultation with the vessel's Captain as well as the Terminal as deemed appropriate.

Approach panel to aid the pilot and ship captain

Aiming to increase safety in berthing and unberthing maneuvers, the Terminal provides an electronic panel, equipped with variables of distance in meters and speed in cm/s. For the maneuver to be safe, it is recommended that the approach speed be less than 7 cm/s.



7.3. FISHING AND OTHER VESSELS

TFB and its boundaries are home of some fishing vessels.

7.4. TUGS

Reference for oil tankers operation:

Is requested the use of two azimuthal tugboats developing a minimum of 75-ton minimum bollard pull in total. One tug can develop a 35-ton minimum bollard pull since the other one

supplies the difference to reach 75-ton minimum bollard pull.

Reference for oil barge operation:

Normal berthing using the common pushing tug. The TBF normally supply the barge berthing/unberthing by its own pushing tug to assure a safe operation condition.

7.5. ANCHORAGE

In the event the vessel is put at anchor the secondary boarding station will take place at the anchorage area, which is, located approximately 1.2 nautical miles Northeast of TFB terminal.

The Amazon River pilotage service is distributed in zones of competence, as follows:

- Zone ZP 1: Located between Fazendinha Town (approximate position 00° 03'05" S e 051° 07' 02" W) and Itacoatiara Town (approximate position 3° 09' 15, 88" S e 58° 25' 84, 82" W);
- Zone ZP 2: Located between Itacoatiara Town and Manaus Town (approximate position 3° 08'07" S e 59° 55' 09" W).

7.6. BERTHING CRITERIA AND MOORING OPERATIONS

7.6.1. Berthing (Arrival)

* Wind Speed Maximum Sustained Limits and Direction

- 25 knots Northeasterly on the dock

7.6.2. Unberthing (Departure)

* Wind Speed Maximum Sustained Limits and Direction

- 25 knots Northeasterly on the dock

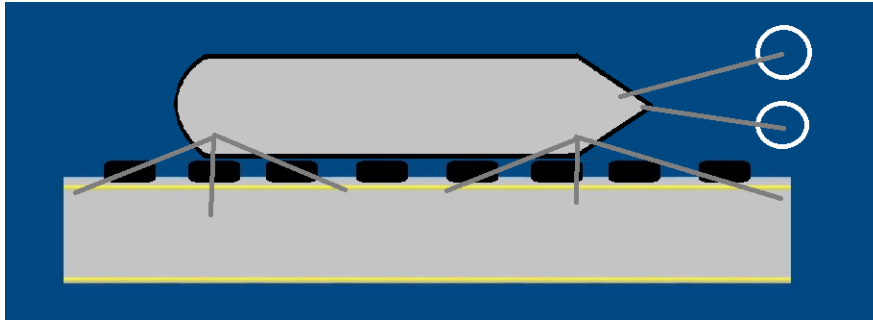
The overnight unberthing of ships may be carried out, subject to compliance with the following requirements:

- Approach panel must be operational;
- Yokohama type fenders in perfect condition;
- Use of two tugboats, azimuthal type and with a traction force of at least 55 Bollard Pull;
- The maneuvers must not occur with wind speeds above 15 knots and currents above 5 knots;
- A team of trained riggers must be on-site ready, as well as support vessels.

7.6.3 Mooring Arrangement

The external side of the floating dock is exclusively dedicated to mooring oil tankers and in the absence of these, it will be able to moor tank barges.

For tankers: The terminal proposes a 2x2x2 mooring arrangement.



The Terminal advises, based on most berthings, that the ship first heel the buoy identified with number 2. Then the buoy number 1. Later, the bow and stern Springs. And then the launchers and crossbars, the order of which is at the commander's discretion.

The cables conform to the guidelines of the OCIMF (International Maritime Forum of Oil Companies) mooring equipment.

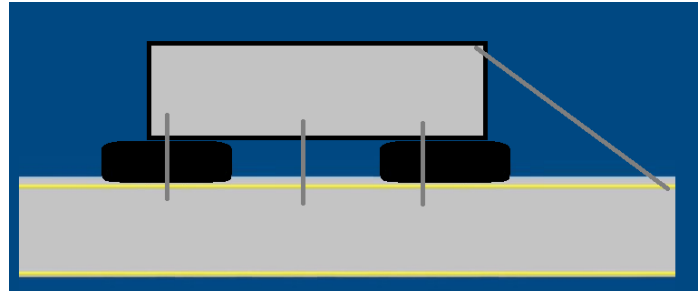
The combination of mooring rods and steel cables is not preferable, but accepted under the following condition:

- Each individual set of mooring ropes is the same size and type (for example, after the Spring there must be two steel ropes or two synthetic ropes. One wire rope and one synthetic rope must be avoided. In addition, the situation of having, for example, springs onwards and steel cables at the stern should be avoided)
- Mooring reels and drums must be used in accordance with the OCIMF (International Maritime Forum of Oil Companies).

Mooring and tethering equipment must be regularly supervised.

- At a certain distance from the Pier, the Springs are preferably launched ashore, in order to help position the ship in accordance with the hoses.
- Launcher, beam and aft spies are sent to the Pier by line.
- The line must be fixed behind the lashing link (The handmade link is not allowed for lashing in the TFB).
- A small boat is used for mooring support.
- Terminal operators will assist the crew on board in positioning the ship's ladder.
- The ladder must be properly positioned and fixed in accordance with the standards, it is mandatory that the board uses a safety net on the ladder.

Tank-Rafts: Proposed mooring arrangement: 1x1x1x1.



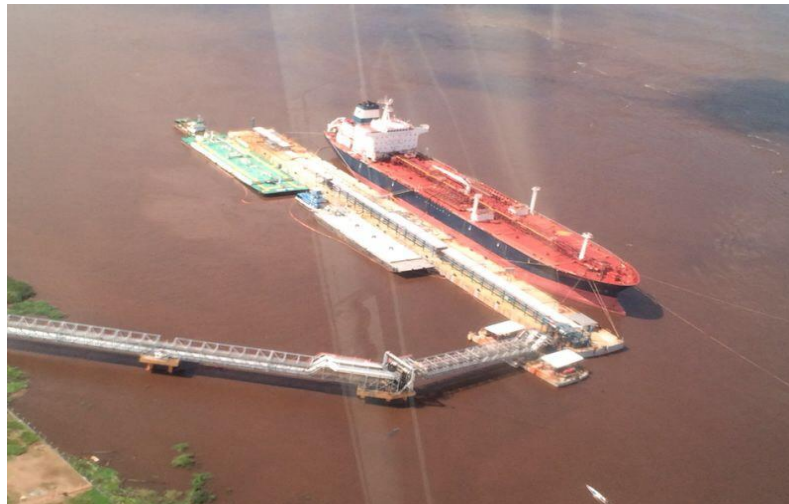
- Cables (spikes) with a minimum diameter of 1 ¼" (31.75 mm). Recommended 1 ½" (38.10 mm)
- The vessel must have at least 12 (twelve) cables (spikes) in good condition and without seams.
- Handles must be polyamide nylon.

7.6.4 Cargo Operation Weather Criteria

The pumping operation is stopped if the wind speed reaches 15 knots, and the hoses will be disconnected if the maximum wind speed exceeds 20 knots. If the wind speed reaches 25 knots, the ship must unberth. However, wind direction and weather forecast will be taken into account before stopping the operation, disconnecting the hoses or unberthing the ship.

In the event of electrical storms, the cargo transference shall be stopped until weather conditions normalization.

8. BERTHS



8.1. LIMITING CRITERIA

The following are the limitations and for vessels that berthing at the Terminal:

For vessel berthing at external port side of floating dock:

Maximum Draft: 36 m (Amazon River egging period)

Maximum Length Overall: 188 m

Maximum Displacement: 84,000 tons of DWT

Minimum Parallel Length: 32,23 m (distance between fenders)

Deadweight: 54.000 tons

BCM – Bow Center Manifold – 120 m

Operational limit of the fenders (Port of the Terminal):

Fenders shock absorber capacity: 1.024 kN.m

Fenders nominal reaction: 2124 kN

Fenders dimensions: D = 2500 mm x L = 5500 mm

Maximum speed for dock berthing approach: 7 cm/s

For vessel berthing at internal starboard side of floating dock:

Maximum Draft: 20 m (Amazon River egging period)

Length from Outside to Outside: 120m

Maximum Displacement: 4,600 T-GRT

Operational limit of the fenders (terminal starboard):

Fenders shock absorber capacity: 41 kN.m

Fenders nominal reaction: 198 kN

Fenders dimensions: D = 1000 mm x L = 1500 mm

Note: The vessel's Master must consider the following limits indicated for the access to the TFB Terminal:

Maximum Draft: 11, 5 m (limited by the Brazilian Maritime Authority).

UKC (under keel clearance): 1.0 m

8.2. MOORING EQUIPMENT

The mooring system is composed, on both sides of the terminal, with ten bollards installed on the external side (Port) of the terminal with a capacity of 30 tons (SWL) and eleven on the (starboard) of the internal berth with a capacity of 10 tons (SWL)

8.3. SHORE GANGWAY

Note: The Terminal does not furnish shore gangway to access the vessel.

8.4. Shore Cranes/Stores Delivery

There is no shore crane fitted on the Terminal dock.

Note: The vessel is not allowed to receive any supplies on board during her berthing stay at the floating dock.

8.5. CARGO MANIFOLD

- Each cargo manifold is performed to operate with five cargo lines simultaneously and each line rated for approximately 1250 cubic meters/hour.

- The cargo manifold is fitted with a 08 inches flange.

- They are equipped with draining capabilities for the dockside of the manifold.
- The cargos manifold are connected to an 14 inch diameter shore pipeline which delivers the cargo to sixteen (16) tank storage farm with the furthest tank located approximately 700 meters from the dock.



8.6. FIRE FIGHTING EQUIPMENT

The Floating Pier is equipped to fight large fires with 14" lines, 04 motor pumps, 14 fire extinguishers point (42 units), 09 foam carts and 09 derivations with hydrant cannons.



8.7. EMERGENCY SHUTDOWN SYSTEM (ESD)

The Terminal is equipped with air compressed activated emergency shutdown valves (fail closed) that will shut down fuel flow to and from the Jetty. This system is activated at the terminal operator control room.

The operation may be stopped as an emergency in extreme cases, such as:

- product leakage;
- tank overflow;
- fires.

The procedures below will be followed.

8.7.1. ESD Procedure Initiated by Terminal Operator

- Terminal Operator will contact the Ship and request immediate discharge shutdown.
- Terminal Operator will confirm with Ship that the discharge is shut down and immediately contact the control room operator that isolate the air-compressed supply to the Quick Closing Valve and open the air compressed system dump valves.
- Dock Terminal Operator will proceed to isolate or confirm isolated the cargo line valves.

8.7.2. ESD Initiated by Control Room Operator

- Control Room Operator will contact the vessel and request immediate discharge shutdown.
- Control Room Operator will contact Dock Operator to initiate ESD.
- Control Room Operator will confirm with vessel that the discharge is shut down, immediately isolate the air-compressed supply to the Quick Closing Valve, and open the air compressed system dump valves.
- Control Room Operator will proceed to isolate or confirm isolated the cargo line valves.

8.7.3. ESD Initiated by Vessel

- Vessel will immediately notify the Control Room Operator of Emergency Discharge Shut Down.
- Control Room Operator will proceed to isolate the Quick Closing Valve and continue isolations as required

8.8. TERMINAL POLLUTION RESPONSE EQUIPMENT

Oil spill response equipment is readily available on-site for handling small spills.

The TBF Terminal has the following pollution response equipment on-site:

- Floating barrier – 235 meters;
- Oil Absorbent pillows – 216 each;
- Absorbent barrier – 468 meters;
- Kit of skimmer complete – 02 kits;
- Plastic bags – 30 pockets;
- Oil Absorbent Blankets – 13 boxes;
- Kit SOPEP – 02 kits.

In the event of any cargo leakage, operations shall cease immediately and will remain stopped until the cause of the leak or discharge has been corrected.

TBF personnel will notify by the vessel of all leaks and spills that have the potential to contaminate the environment.

At all times during the vessel's stay at this terminal, a sufficient number of personnel shall be present on board the vessel and shore installation to deal with an oil spill emergency.

The emergency signal and shutdown procedure to be used by the ship to shore shall be explained and understood before commencing pumping operations.

In the event of a land based spill or release of product, the following procedures are to be followed:

- The first person discovering the spill will immediately notify (by predetermined method of signaling) both TFB personnel and the vessel's senior officer to discontinue pumping operations.
- Spill response activities for shore-based spills are the responsibility of the terminal and are coordinated by the emergency response team.
- Spill response activities for ship-based spills are the responsibility of the vessel.
- It is the vessel's responsibility to ensure adequate spill response equipment is readily available on board to mitigate the effects of a ship-based spill.
- Remove all ignition sources (no smoking, flares, sparks, or flames) in the immediate area.

9. GENERAL PRECAUTIONS

9.1. FIRE PRECAUTIONS

Firefighting appliances on the vessel, including all fire pumps, must be kept ready for immediate use.

An international ship to shore fire connection shall be readily available.

TFB Terminal is equipped with a water distribution system capable to support fire-fighting operations.

The vessel, when berthed, must maintain emergency tow ropes, as applied depending on its dimensions.

In the event of a fire on the Terminal or on-board the vessel, the following alarms and instructions are to be followed;

Vessel's Action for Vessel Based fires:

1. Prolonged blasts of the vessels whistle each blast of not less than ten seconds duration supplemented by a continuous sounding of the ship's general alarm system.
2. Immediate notification by portable radio channel to Terminal Dock Operator and VHF channel 14.
3. Fight fires and prevents fire spreading.
4. Cease all cargo operations and close all valves when pumping has ceased.
5. Stand by to disconnect loading arms.
6. Bring engines to standby.

Terminal Actions for Vessel Based Fires:

1. Control Room Operator or Dock Operator will notify the Authorities of the emergency, stating name, location and nature of emergency.
2. Control Room Operator will activate internal Emergency Response Procedures and notify local fire, police and ambulance.
3. Emergency Team will muster all personnel at the terminal and give them an update.
4. Emergency Team initiates an emergency call out through Control Room Operator and verify no personnel are injured or missing. Attempt to determine status of any injured/missing personnel.
5. Focus on securing terminal and containing vessel fire using tugs (if immediately available) and terminal firefighting equipment.
6. Control Room Operator or Dock Operator has to contact person on call at emergency phone as soon as possible through pre-determined procedures.
7. Terminal Manager to verify with both Control Room and ship that all Authorities are notified of the incident.

8. Consider use of external help and/or security contractor for crowd control.

9. Monitor situation and assess impact on terminal operations.

Vessel Evacuation to Terminal

If the vessel is to evacuate personnel ashore, these personnel are to gather at a muster area located in the parking area besides of administrative building.

General Notes for Jetty Area Fire:

1. Be aware that any emergency at the discharging platform can easily result in a spill. Assisting personnel have to be prepared to respond to a spill.

2. The vessel's crew will respond to fires on board of the vessel.

3. Routine Medical Response or Life Threatening Medical Emergencies on the vessel are activated in the following manner:

Contact Terminal Operations Manager or Terminal Control Room Operator who will contact and dispatch Emergency Response Technicians and/or ambulance to your location.

9.2. POLLUTION PRECAUTIONS

Depending of the cargo class an oil boom will be placed around the vessel upon completion of berthing. There are not local wind objections to lay the boom if requested. The TFB Operation Manager will make final decision.

Note: The TFB does not receive solid waste originated from the vessel.

9.3. VESSEL'S STABILITY, STRESS AND TRIM

Vessel's calling at the terminal are expected to operate safely at all times within the prescribed limits of stability, stress and trim as documented in the vessel's cargo operations manual.

9.4. REPAIRS AND MAINTENANCE

Repairs and maintenance are not allowed during the vessel's stay at the TFB berths.

10. GENERAL CARGO INFORMATION

10.1. ALLOWED BERTH HOURS

Under normal circumstances, the maximum time permitted at berth upon conclusion of the discharge operation will be 04 hours.

10.2 DISCHARGING RATES

Discharge rates are limited by line pressure measured at the Jetty Control Room.

Pressure is not to exceed 7 kg/cm².

11. CARGO AND BALLAST OPERATIONS

11.1. THE TERMINAL OPERATION MANAGER (LOADING MASTER)

The Terminal Operation Manager (Loading Master) shall:

- Be in attendance for vessel berthing, connection of cargo manifold, initial discharge operation, disconnection of cargo manifold and unberthing of the vessel.
- Instruct dock personnel when to open shore valves.
- Ensure that dock personnel are in radio contact with and know the location of the vessel's Cargo Control Room before leaving the dock site.
- Discuss with the Pilot and vessel's Captain any concerns regarding weather conditions for vessel unberthing.
- Be on stand-by throughout the cargo discharge.

11.2. CARGO OPERATIONS

- Cargo survey to be completed before commencement of discharge.
- Cargo discharge is to start at a reduced rate until receipt of cargo has been confirmed in the shore tank.
- At no time during the discharge operation is the manifold pressure to exceed 7 Kg/cm².
- Dock personnel will stand by the vessel's cargo manifold during start of cargo discharge and will be positioned on the dock throughout the discharge operation.
- Upon completion of cargo discharge, pier personnel will drain the cargo from the vessel side of the cargo manifold into a designated cargo tank on shore.
- Upon completion of cargo loading, pier personnel will drain the cargo from the terminal side of the cargo manifold into a designated cargo tank on board.

The TFB operates with dedicated and independent lines for cargo charging and cargo discharging.

Draining of the cargo manifold is to be done right after loading or unloading completion.

Tankers using the Terminal shall comply with cargo and ballast handling procedures and precautions as recommended in the latest edition of ISGOTT including, but not limited to.

All cargo lines are equipped with double block valve located at intermediate line way.

Notes:

- 1) The cargo lines dedicated to cargo transfer to the oil barge are equipped with one-way valve.
- 2) The cargo lines dedicated to cargo transfer from the oil tankers there are not one-way valve and can be used in both directions.

11.2.1. PRE-OPERATIONAL MEETING AND INSPECTION

Before any cargo or ballast operations commence, a pre-operational meeting will take place between the TFB Supervisor or Loading Master and either the vessel's Master or its officer in charge of cargo and ballast operations.

The purpose of this pre-operational meeting is to:

1. Agree on procedures for ascertaining mutual compliance with the Ship/Shore Safety Checklist.
2. Complete and sign the applicable documentation as contained in this guideline.
3. Discuss any deficiencies arising from the Ship/Shore Safety Check list and agree on any additional precautions necessary.

Note: The Terminal reserves the right to refuse to discharge a tanker if any substantive deficiencies remain unresolved.

4. Agree on procedures for taking cargo samples, gauging, slop measurement and, if necessary, ballast samples.
5. Agree on a discharge plan, which shall include:
 - Quantity and type of cargo to be discharged.
 - Discharge rates.
 - Ballasting/de-ballasting procedures and rates.
 - Emergency procedures.
6. Agree on communications to be used during the operation. As a minimum, communication shall be at least every 60 minutes and more often as the situation dictates.
7. Agree on connecting/disconnecting procedures.

11.2.2. OPERATIONAL PROCEDURES

The Loading Master will, occasionally, witness the vessel's dips/ullage/water dips/temperatures/samples as appropriate to the operation.

The Terminal is responsible for connecting/disconnecting the loading manifold and draining the shore section of the manifold.

The ship is responsible for draining her loading manifold and its section of the manifold.

11.2.3. DISCHARGE OPERATIONS

The following procedures apply to discharging operations:

1. Before discharge can commence, the Terminal shall confirm that the vessel is ready in all respects, that vessel systems are correctly lined up, and that a Terminal representative is stationed on the loading dock and in the Control Room.
2. The vessel shall ensure that discharge valves and inert gas supply valves are correctly lined up and that a responsible crewmember is standing-by the manifold if the cargo is under an inert gas blanket.
3. The vessel shall advise the Terminal when it has commenced discharging at the slow initial rate (as agreed in the preoperational meeting).
4. The Terminal shall advise the vessel when it can confirm that it is receiving cargo.
5. The Terminal shall advise the vessel when it is satisfied that the rate can be increased.
6. Throughout the discharge, the vessel shall advise the Terminal of fluctuations in the discharge rate, the status of stripping operations, and the status of ballasting operations.
7. The vessel shall advise the Terminal of discharge rates and expected time of completion.

11.2.4. CONDITIONS TO BE OBSERVED DURING THE OPERATION

Representatives of the Terminal and the vessel must check relevant items on the Ship Shore Safety Checklist at intervals not exceeding that agreed in the declaration. Any unsafe condition must be reported immediately to the other party and operations stopped until it is rectified.

In addition to procedures and precautions as recommended in the latest edition of ISGOTT, the following are required for tankers discharging at the Terminal:

- a) An officer, equipped with an intrinsically safe portable radio, shall be stationed close to the main cargo control station at all times.
- b) Venting of cargo tanks shall only take place through the ship's fixed venting arrangements.
- c) Ullage, sounding and sighting ports must be kept securely closed.

- d) Overboard valves connected to the cargo or bilge system must be sealed on arrival.
- e) Spool pieces for connecting the ballast and cargo systems on SBT tankers must be disconnected and stowed in their proper place.
- f) No tank cleaning, other than stripping, is permitted.
- g) Responsible vessel's crew will maintain presence at the vessel's manifold at all times during discharge operations.
- h) No dirty ballast is to be discharged over board or sent ashore.

11.3 BALLAST AND DEBALLAST

11.3.1 NATIONAL LEGISLATION

Operations carried out at Terminal TFB S/A basically consist of unloading, where the ship has the need to ballast partially or totally, using water from the Amazon River.

For cargo operation (if any), the shipowner must follow the rules and legislation below:

- NORMAN-20/2005 of the DPC (Directorate of Ports and Coasts).
- ANVISA-RDC Resolution 72/2009.
- Federal Law 9.966/2000.

The shipowner must also have the Ballast Water Management Plan, and make available to ANVISA, data in an appropriate form designated by this regulatory agency.

In compliance with Law 9966 of April, 28, 2000, which provides for the prevention and control of pollution caused by the oil, harmful or dangerous substances releases and spills in waters under national jurisdiction. TFB doesn't authorize the disposal of effluents from the exhaust gas washing systems in inland water may present harmful or dangerous substances to the hydric organisms and its ecosystem. The ships will be responsible for own waste management, for controlling the gas scrubbing systems operations and its efficiency.

11.3.2 INTERNATIONAL LEGISLATION

The Shipowner must follow the rules of ISGOTT (6th Edition).

12. DOCUMENTATION

List of Applicable Documents to be Completed and Signed prior to Start of Cargo Operations during the safety pre-transfer meeting:

Ship/Shore Safety letter of Intent;

TFB Terminal Ship/Shore Safety Checklist;

Acceptance Form for Offloading Fuel Oil Tankers;

Ship/Shore Transfer Communications;

Safety and Security Information;

Security Communication Terminal –Vessel;

13.0 ATTACHMENTS

SHIP SHORE SAFETY LETTER OF INTENT

Company: _____ Terminal: _____

Master's Name: _____ Vessel: _____

Date: _____

PORT: TBF Terminal

Dear Sir:

Responsibility for the safe conduct of operations whilst your ship is at the TBF rests jointly with you, as master of the ship, and with the responsible terminal representative. We wish, therefore, before operations start, to seek your full co-operation and understanding on the safety requirements set out in the ship-shore safety checklist, which is based on safe practices widely accepted by the oil and the tanker industries.

We expect you, and all under your command, to adhere strictly to these requirements throughout your ship's stay alongside this terminal and we, for our part, will ensure that our personnel do likewise, and co-operate fully with you in the mutual interest of safe and efficient operations.

Before the start of operations, and from time to time thereafter, for our mutual safety, a member of the terminal staff, where appropriate together with a responsible officer, will make a routine inspection of your ship to ensure that the questions on the ship-shore safety checklist are being managed in an acceptable manner. Where corrective action is needed, we will not agree to operations commencing or, should they have been started, we will require them to be stopped. Similarly, if you consider safety is being endangered by any action on the part of our staff or by any equipment under our control you should demand immediate cessation of operations.

Please acknowledge receipt of this letter by countersigning and returning the attached copy:

Terminal Representative	Vessel's Master
Name:	Name:
Position/Title:	Vessel's Name:
Signature:	Signature:
Telephone nr.:	Telephone nr.:
VHF Channel:	VHF Channel:

Date: _____

Time: _____

ACCEPTANCE FORM FOR OFFLOADING FUEL OIL TANKERS

1. The shore facilities at this terminal are equipped with check valves for loading operations with barges, for other discharging operation with vessels, the terminal does not provide check valves. If cargo pumps are shut down during discharge of cargo, the vessel's manifold valves are to be closed.
2. Every effort must be made to ensure that both cargo manifolds contain hot cargo at the completion of cargo discharge.
3. Maximum discharge pressure not to exceed 7 Kg/cm² at anytime. Discharge rates are expected to be sufficient to ensure offloading is completed within the agreed time.
4. Vessel's representative is required to give 4 (four) hours notice of completion of discharge to the TBF Terminal Operations Manager.

Name of Ship: _____

Chief Officer: _____

TBF's Representative: _____

Date: _____

SHIP/ShORE TRANSFER COMMUNICATIONS

Vessel's Name: _____

Terminal: TBF

Date of Arrival: _____ Time of Arrival: _____

The ship-to-shore communications at the TBF will be in English for not Brazilian flags and in Portuguese for Brazilian flags.

And, in accordance with the requirements of the Local pursuant regulations, namely, the Regulation for the Prevention of Pollution from Ships and From Dangerous Chemicals, the supervisor of a transfer operation on board a vessel shall ensure that transfer procedures are established with the concurrence of the supervisor of the transfer operation at the unloading facility with respect to:

The communication signals for the transfer operation, including:

- (A) Stand by to start transfer;
- (B) Start transfer;
- (C) Slow down transfer;
- (D) Stand by to stop transfer;
- (E) Stop transfer;
- (F) Emergency stop of transfer; and
- (G) Emergency shutdown of transfer.

Vessel Supervisor: _____

Terminal Supervisor: _____

SAFETY AND SECURITY INFORMATION

All visitors must be identified in the Terminal Entrance and complete and familiarized with site orientation. Visitors must be accompanied by a TFB representative when on site and are required to complete site orientation every 2 years.

Orientation involves viewing a brief safety video and completing an orientation form. Access to areas other than the Jetty is prohibited unless the Terminal Security Officer grants permission. All persons entering the must comply with TFB's safety, health, environmental and security regulations.

Personal Protective Equipment

All persons entering the floating dock must wear a hard hat, safety boots, safety glasses and a reflective vest or equivalent. Personal Flotation Devices ("PFD's") are mandatory anywhere on the jetty

Speed Limit

All traffic signs and speed limits must be obeyed and is not allowed in the operational area. The maximum speed limit on site is 15 km/hr.

Safe Work Permit System

TFB utilizes a "safe work permits system" on site. All non – operational work requires a safe work permit on terminal property.

Vehicles

All vehicles entering this Terminal are subject to search. Vehicles are not permitted in operational areas without TFB Terminal Manger permission. If permission is granted, vehicles must back into designated parking spaces. Vehicles should be locked when left unattended. On site work vehicles must have functional back up alarms. All vehicles must be in good working condition.

For example, there must be no exhaust leaks, no oil leaks, etc. The owner must remove vehicles from the terminal before the vessel departs.

Prohibitions

Horseplay, fighting, gambling, stealing and soliciting are prohibited.

Smoking Regulations

Smoking is prohibited at the Terminal. Vessel's Master may designate smoking areas on board the vessel.

Alcohol/Drugs

Alcohol and illicit drugs are prohibited in the Terminal. Any person found under the influence, or in possession, of either alcohol or illicit drugs will be refused admittance and/or removed from the premises.

Fire Arms/Knives

Use or possession of firearms in the Terminal is strictly prohibited for any person other than uniformed officer from enforcement agencies, such as the Police Authority.

Material Safety Data Sheets (MSDS)

Material Safety Data Sheets are available from the Terminal upon request.

Restricted Area

Access control procedures have been put in place to attempt to control anyone outside or unauthorized on the jetty from gaining access to a vessel while it is moored to the jetty. The jetty, including all buildings and equipment located on the jetty, are part of the restricted area. The restricted area fencing across the jetty acts as a second line of defense to control a six hundred meter (600m) distance from the vessel location.

Security

Maritime Security (“MARSEC”) Levels advise the maritime community and the public of the level of risk to the maritime elements of the national transportation system. The MARSEC Level will be designated by Transport Canada and will determine the security level for facilities.

MARSEC Level 1 – Normal operation level for security.

MARSEC Level 2 – heightened risk of a transportation security incident. There is some identified threat but no specific target.

MARSEC Level 3 – A transportation security incident is probable or imminent.

All persons entering the facility are required to have picture identification. All persons must complete the Terminal Entrance Log prior to entering and exiting the terminal.

Note: Master must advise any crewmembers of this Safety and Security Information before allowing them on the Terminal property.

Terminal Representative	Vessel’s Master
Name:	Name:
Position/Title:	Vessel’s Name:
Signature:	Signature:

Date: _____ Time: _____

DISCHARGE INFORMATION

Vessel's name: _____

Date of arrival: _____ Time of arrival _____

Number of loading line to be used: _____ Size of shore connections: _____

Line size to tanks _____ 0.46m (18") _____

Shore tanks to be used: _____ Ship tanks to be used _____

 Total quantity of cargo to be discharged: _____ m³ @20°C

The completion of cargo discharge will be a: Ship Stop Shore Stop

 Shoreline maximum discharge rate (approximate): _____ m³/hr

 Normal operating discharge pressure: _____ kg/cm²

 Maximum operating discharge line pressure: _____ kg/cm²

Temperature of cargo during bulk discharge: _____ °C

Temperature of cargo during completion/stripping stage of discharge: _____ °C

Minimum closing time of: Ship ESD Valves: seconds Shore ESD Valves: 15 seconds

Shore Tank Farm Information:

Tank	Capacity (m3)	Operating Max (m3)	Operating Min (m3)	Elevation (m)	Elevation Top of Tank (m)
1	10738	10114	472	15,15	15,37
2	5240	5000	235	15,15	15,25
3	5264	5000	233	15,15	15,24
4	5279	5003	235	15,15	15,30
5	5310	5002	245	15,15	15,37
6	5269	5003	240	15,15	15,29
7	5264	5003	235	15,15	15,25
8	5289	5002	235	15,15	15,31
9	2371	2242	122	12,8	12,83
10	2371	2241	121	12,8	12,83
11	5235	5003	238	15,15	15,30
12	5265	5001	238	15,15	15,27
15	11019	10272	307	15,86	15,96
16	11018	10347	306	15,98	16,07
17	11031	10652	320	16,43	16,55
18	11018	10639	307	16,43	16,54

TFB Operations Manager:

Name: _____ Signature: _____

Vessel's Operator in charge:

Name: _____ Function: _____ Signature: _____

SECURITY COMMUNICATION FACILITY/VESSEL

	VESSEL	TERMINAL
	YES/NO OR COMPLETE APPROPRIATE FIELD	
1. MARSEC Level of Operation (1, 2 or 3) If Vessel is operating at MARSEC 2 or 3 the FPSO or Duty Manager must be contacted.		
2. Vessel/Facility Security Certificate Number Expiry Date Issuing Body		
3. Means of raising an alarm (UHF/VHF Channel)		
4. Vessel Security Alert System		
5. Vessel/Facility to immediately communicate any noted security nonconformities/ breaches/etc.		
6. Procedures for identification and screening of the following:		
(A) Passengers		
(B) Crew		
(C) Visitor		
(D) Luggage		
(E) Vessel Stores		
(F) Vehicles		
7. Is there a requirement for a Declaration of Security? If yes, contact Duty Manager or PFSO:		
If DoS is required, state reason:		
8. There are Security Emergency procedures documented?		

Terminal Representative		Ship Security Officer or Designate	
Name		Name	
Position		Signature	
Facility Name		Vessel Name	
Date:		Date:	