

# TFB – TERMINAIS FLUVIAIS DO BRASIL S/A

## PORT INFORMATION BOOKLET



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## **1.0 INTRODUCTION**

TFB – TERMINAIS FLUVIAIS DO BRASIL S/A is located at Itacoatiara City in Amazon State, delimited by Amazon River. The TFB has a large capacity about 103.000 cubic meters of combustible storage, and typically transfer the combustible stored to the other localities at the North Region.

The enterprise it's part of the DISLUB EQUADOR group.

With reference about this informative (here denominated as "Terminal Regulation") for "Terminal", "Establishment", "Facilities", "Station" or any anyone of these words mentioned means, collectively all real and personal property comprising the combustible storage on TFB, being now or in the near future including, the base (shore complex), walkways, pier, berths, pipes, storage tanks, buildings, equipments and the whole others facilities offered by TFB, to deal with oil derivates and biofuel and related activities.

The purpose of this regulation is to provide information to, owners, operators, managers, charterers and Masters of oil tankers regarding to the safe operation regulations and general conditions of services available at the terminal.

### **Integrated Management Policy of TFB S/A (ISO 9001; ISO 14.001; OHSAS 18.001 e NBR 16.001**

Harbor operations services, stowage and liquid bulks handling: Oil derivates combustible and biofuel adopting the following principles:

- Clients satisfaction, attending their requirements;
- Continuous improvement of the efficiency Integrated Management System;
- Accidents preventions, injuries, diseases, security risk and occupational health, environmental pollution and several impacts;
- Legislation attendance and current regulatory standards and other requirements by the Organization;
- Commitment with the Sustainable Development promotion;
- Commitment with the following's principles of Social Responsibility: Accountability, transparency, ethical behavior, respect for the interesting of the parts concerned, by the behavior international standards and by the human rights;

## **2.0 DISCLAIMER**

The information contained in this Terminal Regulation is judged correct in the moment of the issued. However, the TFB does not guarantee the information accuracy and accepts no liability for any damage, delay or loss resulting from any inaccuracy contained herein.

## **3.0 RIGHT TO SUSPEND OPERATIONS**

Expects that the Terminal and vessels operate of a safe way, non-destructive and environmentally friendly. The TFB reserves the right to suspend the operations and

proceed with the unmooring of the any vessel from the Terminal under the following circumstances:

- For violation, or non-fulfillment with the Terminal guidelines;
- For associated defects to the vessels, who can present risk on/for the terminal;
- When unsatisfactory performance of the vessel can cause inefficiencies and significant restrictions on the terminal operations;
- Whether, whatever reason, the safety of the Terminal, personnel, environment or the vessel causes concern.

### **Liability Limitation**

To the purpose of this section presenting, it is understood for:

“Claims” means any claims, demands, damages, costs, expenses (including, among others, legal fees), fines, penalties, losses, liabilities, actions or causes of actions, whether in law or equity.

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

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

Furthermore, each Vessel Parties (owner, charters, operator...) will agree in indemnify and insure any responsibility to the TFB.

(a) Any claims by or in respects of a vessel parties;

(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 from the Terminal, or due to the refusal to load/unload all or part of a nominated shipment, delay to or suspension of load/unload or other operations. Each one of the Vessel Parties agrees that the obligation in indemnify contained herein is joint and solidarity.



## 4.0 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 approximated position of 3°09'15,88 "S e 58°25'84,82"O.

The TFB operates about 5 years and is a strategic terminal to attend the combustible logistic to supply the North Region of Brazil. The unit begun to operate in 2013 and consists of a steel floating pier supported by 20 mooring piles. The floating pier has 8 unities of Yokohama defenses aligned along the structure, objectifying to distribute the vessel weight along the pier.



#### Terminal Layout

The load and unload lines have an emergency locking valve (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 at the Operational Control Center (OCC), to realize a fall of pressure through the Supervisory or smudges of oil on the river, the operator will stop the transferring operation immediately.

The valve takes approximately 15 seconds to shut from an open position, the volume contained in this line is about 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 Sensitive

The Amazon River is home of a wide variety of wildlife including, birds, fishes and aquatic mammals. The environment protection it's in interest of all stakeholders and expects that the vessel operators become this one of their main priorities.

## 4.3 Vessel's Acceptance Criteria

All vessels nominated to calling at the terminal must be approved by the TFB Group before they are being accepted by the Terminal Operational Department.

All vessels calling the terminal must fully comply with all applicable international conventions, regulations and accepted industry standards including the most recent edition from the International Safety Guide for Oil Tanks and Terminals (ISGOTT).



The terminal does not have available a facility for ballast reception. Oil tankers calling the terminal will need to be able to satisfy the International Maritime Organization (IMO) requirements, International Convention for Prevention of Pollution from Ships (MARPOL 73/78) Annex 1, Regulation 13 (2) and/or any amendments to same.

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

#### 4.4 Local Time

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

#### 4.5 Vessel's Agency

Oil tankers calling the terminal are required to dispose of a Maritime Agency, generally they are located at Itacoatiara or Manaus.

#### 4.6 Smoking

Smoking is strictly prohibited on board the vessel alongside, on floating pier and within the TFB restricted zone, except on enclosed spaces on board the vessel specifically designated by the Master as "Smoking Area"

#### 4.7 Important Contact Information

| Entity                     | Contact Name       | E-mail Address                          | Phone Nr.   |
|----------------------------|--------------------|---|---|
| Terminal                   |                    |   |   |
| Operational Control Center | Operator           | tfb.operacoes@dislubequador.com.br      | 55-92-3521-9321<br>55-92-3521-9329                      |
| Main Gate of Security      | Reception Desk     |   | 55-92-3521-9300 55-92-3521-9311                         |
| Floating Pier Security     | 24hrs Operator     |   | 55-92-3521-9316   |
| PFSO                       | Abel Pamplona      | Abel.plamplona@gde-br.com               | 55-92-3521-9300 e 55-92-99111-2633                      |
| Administrative Manager     | Paulo Ferreira     | paulo.ferreira@gde-br.com               | 55-92-3521-9300 e 55-92-98110-3333                      |
| Operational Manager        | Adilson Nascimento | adilson.nascimento@dislubequador.com.br | 55-92-3521-9300<br>55-92-99494-1201<br>55-92-99112-0991 |

|                              |  |                              |  |
|------------------------------|--|------------------------------|--|
| Emergency Nr.                |  |                              | 55-92-3521-9311  |
| Services                     |  |                              |  |
| North Star Maritime Agency   |  | amazon@nsshopping.com.br     | 55-92-3071-9592;<br>55-92-3302-1775;<br>55-92-99308-6826;<br>55-92-99308-6989;<br>55-92-99308-9459 |
| Pilot Zone 1<br>UNIPILOT     |  | gerencia@unipilot.com;       | 55-91322-30844<br><br>55-91-3223-5077<br>55-91-99140-6947  |
| Pilot Zone 2<br>Manaus Pilot |  | plantaio@manauspilots.com.br | 55-92-3664-6634  |
| Pilot Zone 2<br>PROA Pilot   |  | proa@proamaneaus.com.br      | 55-92-3624-0041<br><br>55-92352-12073  |
| Fire Fighters Department     |  |                              | 55-92-193<br><br>55-92-99487-9536  |
| Police                       |  |                              | 55-92-190<br><br>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  |

## 5.0 Meteorological Information

### 5.1. Temperature

The average air temperatures they vary throughout the year with ranging from 26° C on winter and 37°C on summer. Summer times present high humidity level and UV sunrise harsh environmental conditions; therefore, the crewmembers need to be adequately prepared using adequate skin sunny protector.

### 5.2. Wind Direction

| Wind Class | Direction |    |      | % of occurrence | Period of a day |
|------------|-----------|----|------|-----------------|-----------------|
| 1          | 0         | 45 | N-NE | Raro            | 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 | Raro | 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 causes major impact to the inland navigation.

### 5.4. Waves

The terminal is located in inland waters at Amazon State and there is not significant waves variation during all period of the year.

### 5.5. Tides and Currents

The river tidal variation level is approximately 12 meters, it occurs every ½ year period following the Amazon River behavior – from December to July is a flooding period and from August to November is an ebbing period.

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

### 6.0. Communication

#### 6.1 Pre-arrival

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

- Advise any requirements in due time.
- The vessel is required to report the indicated information before the arrive. Failure to give the proper notice or information may result in your vessel being delayed to receive the clearance to enter in Brazilian waters.
- Advise daily ETA's for the pilots as indicated by the maritime agency.
- The vessel must berth on the external side (Terminal Port Side) and the Barge – Tank by the internal side (Terminal Starboard Side). When there is no vessel alongside the terminal, barges can occupy all berths available.
- The following documents will be required at the moment of the vessel arrive to berth or even at the anchorage: last port clearance, vessel's store, crew effects list and crew list. IMO or Company forms are acceptable.
- The will have to supply the own gangway.
- Please note that the Brazilian Customs may come on board of the vessel for a random search. Certify that the vessel store and crew effects declaration documents

are accurate as they may audit it as well. Any variance in these documents could result in a penalty being issued to your vessel or crew.

- Advise the amount of cargo that you have on board, and the amount to be discharged. The terminal will need a copy of the Bill of Lading before arrival.

## **6.2 Communications & Traffic Services**

For the traffic and communication 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 and 74.

## **6.3 Terminal Communications**

- Before the vessel arrives, the TFB keeps the control by VHF on channel 16 and then make an agreement for one of the channels 20, 60, 65, 66, 73 and 74.
- After the vessel mooring conclusion, the Operational Control Center (OCC) will follow by VHF on the agreed channel. As a secondary way to communication the verbal information will be formalized.
- The pilot station stays in stand by VHF on channel 16.

Note: Any failure on communication process will oblige immediately the interruption of the operations.

## **7.0 Navigation and Mooring Operations**

### **7.1 Traffic Separation Scheme**

There is no Traffic Separation for the Terminal.

### **7.2 River Pilots**

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

While the followings guidelines are taken in consideration regarding of the vessels berthing and unberthing at the TFB Terminal, the final decision will be taken by the pilot in consultation with the vessel's Captain as well as the Terminal as appropriate.

### **Approximation Panel to the Pilots and Vessel's Captain Assistance**

Aiming to the increase on safety at berthings and unberthings maneuvers, the Terminal provides of an electronic panel, endowed with the variables of distance and velocity in cm/s. For a safe maneuver is recommended that approximation velocity be less than 7 cm/s.



### 7.3 Fishing and Other Vessels

The TFB frontiers are natural space 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 – minimum bollard pull.

Reference for oil barges operations:

The berthing is normal using a common tugboat. The TFB normally supply the barge berthing/unberthing with own pushing tug to assure a safe operation condition.

### 7.5 Anchorage

In case of the vessels need to go to the anchorage, 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 pilots services are distributed in zones of competence, as follows:

-Zone ZP 1: Located between Fazendinha Town (approximate position 00°03'05"S and 051°07'02"O) and Itacoatiara (approximate position 3°09'15,88"S and 58°25'84,82"O);



-Zone ZP 2: Located between Itacoatiara and Manaus (approximate position 3°08'07"S and 59°55'09"O).

## **7.6 Berthing Criteria and Mooring Operation**

### **7.6.1 Berthing (On arrival)**

- Maximum Wind Speed Sustained Limits and Direction

- 25 knots Northeasterly on the floating pier.

### **7.6.2 Unberthing (On departure)**

- Maximum Wind Speed Sustained Limit and Direction

- 25 knots Northeasterly on the floating pier.

### **7.6.3 Mooring Arrangements**

The external side of the floating pier is exclusively dedicated to berths oil tankers alongside, and in the absence of vessels, oil barges can come alongside.

#### **For oil tankers:**

Vessels normally tie up to a 2/2/2 mooring arrangement.

The mooring lines as per OCIMF (Oil Companies International Marine Forum) guidelines.

Combination of mooring lines and wires is not preferred but accepted under the follow condition:

- Each individual set of mooring lines are of same size and type (e.g. after spring lines must have two wire line or two synthetic ropes. One wire line and one synthetic line shall be avoided. Also, the situation of having for example synthetic springs line forward and wires after should be avoided).

- Mooring winches and drums are to be use in accordance with OCIMF (Oil Companies International Marine Forum) guidelines.

The mooring equipment guidelines and moorings are to be tended to regularly.

- At some distance from the floating pier, the Springs are launched preferably to ashore with the main objective auxiliary the vessel positioning as per the terminal manifold position.

- Head, breast and stern line are launched to the floating pier by heaving line.

-The heaving line must be secured behind the eye of the mooring (The handmade eye is not allowed for mooring use in the TFB).

- A small boat is used to support the mooring.

-The terminal operators on the floating pier will support the vessel's crew on board about the positioning of the vessel and the vessel's gangway.

-The vessel's gangway must be dully positioned and fixed according with the standards, is compulsory that the vessel use the safe net on the gangway.

**For oil barges:** The mooring arrangements: 2x2x2.

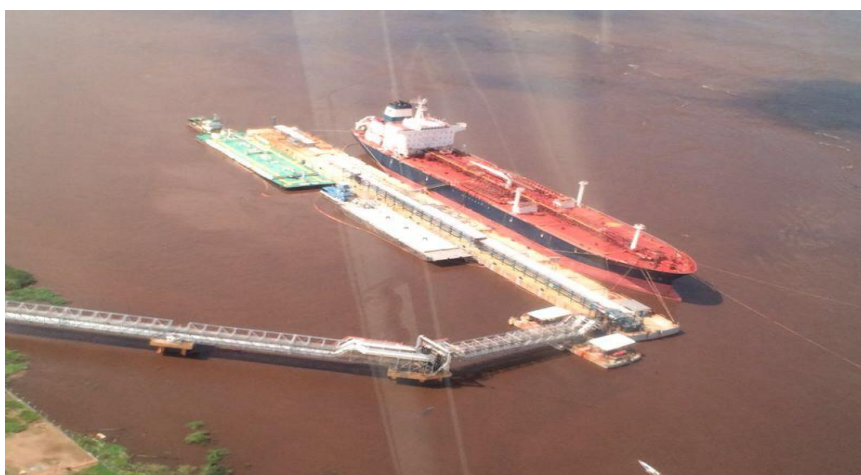
- Lines (mooring spies) with minimum diameter of 1 ¼" (31,75 mm). Is requested 1 ½ " (38,10 mm)
- The barge must dispose of the minimum 12 (twelve) lines (mooring spies) in good conditions without emendation.
- The lines must be done by nylon polyamide.

#### **7.6.4 Cargo Operation Weather Criteria**

The cargo operation will stop in case the wind velocity reaches 15 knots, and the hoses will be disconnected in case the maximum velocity be upper to 20 knots. In condition of the wind velocity comes to reach 25 knots, the vessel will must to unberth. However, the wind direction and weather forecast will be taken in consideration before stopping cargo and the hose disconnection or the vessels unberth.

In case of electrical storms, the handling cargo must be interrupted until that the weather conditions back to normal.

#### **8.0 Berths**



## 8.1 Limiting Criteria

The following are the limitations for vessel calling at the Terminal:

### **For vessels berthing at Terminal port side:**

Maximum Draft: 36 m (Amazon River egging period)

Maximum Length Overall: 188 m

Maximum Displacement: 84.000 tons

Maximum Breadth: 32 m

Deadweight 54.000 tons

BCM (Bow Center Manifold): 120 m

### **Operational Limit for the Fenders (Terminal portside):**

Fenders shock absorber capacity: 1.024 kN.m

Fenders nominal reaction: 2.124 kN

Fenders dimensions: D = 2.500 mm x C = 5.500 mm

Maximum velocity for the floating pier approach: 7 cm/s

### **For vessels (barges) that come alongside by the Terminal Starboard side:**

Terminal Maximum Draft: 20 m (Amazon River egging period)

Maximum Length Overall: 80 m

Maximum Displacement: 4.600 TPB

### **Operational limit for the Fenders (Terminal Starboard side)**

Fenders shock absorber capacity: 41 kN.m

Fenders nominal reaction: 198 kN

Fenders dimensions: D = 1000 mm x C = 1500

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

**Maximum Draft: 11,50 m (limited by the Brazilian Maritime Authority)**

**UKC (under keel clearance): 1,0 m**

## 8.2 Mooring Equipment

The mooring system is comprised for both sides of the floating pier, with ten bollards installed on the external (port side) of berth with a capacity of 30 tons (SWL) and eleven on internal berth (starboard side) with a capacity of 10 tons (SWL).

### 8.3 Forms to Access the Floating Pier

**Note:** The terminal does not provide shore gangway to access the vessel. The vessel will must to provide the gangway for the Terminal access the vessel.

### 8.4 Shore Cranes/Stores Delivery

The terminal does not dispose a crane. The vessels will have to provide the crane to connect and disconnect the hoses.

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

### 8.5 Cargo Manifold

- The terminal disposes of five cargo lines, being able to operate simultaneously. Each line has an approximately rate of 1.250 cubic meters per hour.
- The cargo manifold is fitted with a 08 inches flange.
- They are equipped with draining capabilities for the manifolds from the pier.
- The cargo manifolds are connected to a 14 inches shore pipelines which delivers the cargo to a storage module with 16 (sixteen) tanks, with the furthest away tank located about 700 meters from the Floating Pier.



### 8.6 Fire Fight Equipment

The floating pier is equipped to fight larges fires. Lines with 14'' (inches), 04 motor pumps, 14 fire extinguishers (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 the combustible flow from/or to the Terminal. This system is activated at the terminal Operational Control Center (OCC).

#### 8.7.1 ESD Procedure Initiated by Terminal Operator

- The terminal operator will contact the vessel and request immediate discharge shutdown.
- The terminal operator will confirm with the vessel so that the discharge operation be stopped and will make contact immediately to the operator at the Operational Center Control (OCC).
- The operator at the floating pier will isolate or confirm the cargo line valves isolating.

#### 8.7.2 ESD Procedure Initiated by Terminal Operator

- The operator at the Operational Center Control will contact the vessel and request immediate discharge shutdown.
- The operator at the Operational Center Control also will contact the operator at the floating pier to initiate ESD.
- The operator at the Operational Center Control will confirm with the vessel so that the discharge be interrupted, immediately isolate the air compressed supply to the Quick Closing Valve and open the air compressed system dump valves.
- The operator at the Operational Center Control will isolate or confirm the cargo line valves isolating.

#### 8.7.3 ESD Initiated by Vessel

- The vessel will contact immediately the operator at the Operational Center Control about the Emergency Shutdown.
- The operator at the Operational Center Control will isolate the Quick Closing Valve and continue isolations as required.



## **8.8 Terminal Pollution Response Equipment**

Oil spill response equipments are readily available on-site for handling small spills.

The TFB terminal has the following pollution response equipment on-site:

- Floating barrier – 235 meters;
- Oil absorbent pillows – 216 each;
- Absorbent barrier – 468 meters;
- Kit skimmer completed – 02 kits;
- Plastics bags – 30 packages;
- Oil absorbents 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.

The TFB personnel will be notified by the vessel of all leaks and spills that have the potential to contaminate the environment.

At all times during the vessel 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 vessel to shore shall be explained and understood before commencing pumping operations.

In case 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 senior officer to discontinue pumping operations.
- Spill response activities for shore – based spill is the responsibility of the terminal and are coordinated by the emergency response team.
- Spill response activities for vessel – based are the responsibility of the vessel.
- It is responsibility from the vessel to ensure adequate spill response equipment is readily available on board to mitigate the effects of a vessel – based spill.
- Remove all ignition sources (no smoking, flares, sparks or flames) around the area.

## **9.0 General Precautions**

### **9.1 Fire Precautions**

Firefighting appliances on board the vessel, including all fire pumps, must be kept ready to be used immediately.

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

The TFB terminal is equipped with a water distribution system capable to support firefighting operations.

The vessel when moored shall keep the firewire to the emergency tug as applied in function of yours dimensions.

In case of fire at 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 vessel general alarm system.
2. Immediately notification by portable radio channel to Terminal operator on pier by VHF channel 14;
3. Fire fights and fire prevents spreading;
4. Cease all cargo operations and close all valves when pumping has ceased;
5. Stand by to disconnect the hoses;
6. Bring engines to standby.

**Terminal Actions for Vessel Based Fires:**

1. The operator at the Operational Control Center or Pier Operator will notify the Authorities about the emergency stating name, location and nature of emergency.
2. The operator at the Operational Control Center will active the internal emergency response procedures and notifies local fire fighters, 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 the operator at the Operational Control Center and verifies if there are personnel 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. The operator at the Operational Control Center or Pier Operator to contact person on call at emergency phone as soon as possible through pre – determinate procedures.
7. Terminal Manager to verify with both Control Center and vessel that all Authorities are notified of the incident.
8. Consider use of external help and/or security contractor for crowd control.
9. Monitor the 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 Floating Port 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 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 Operational Manager or Terminal Operational Control Center 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 maneuver. 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 operation manual.

### **9.4 Repairs and Maintenance**

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

## **10.0 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 Discharge Rate**

The discharge rate is limited by line pressure measured at the Jetty Control Room.

Pressure is not to exceed 7 kg/cm<sup>2</sup>.

## **11.0 Cargo and Ballast Operations**

### **11.1 Operational Port Technician (Loading Master)**

Operational Port Technician shall:

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

### **11.2 Cargo Operations**

- Cargo survey must be completed before the commencement of discharge operation.
- The discharge operation has to commence with a reduced rate until the 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/cm<sup>2</sup>.
- The terminal personnel will be stand by the vessel's cargo manifold during the commencement of discharge operation and will be available at the terminal during the whole discharge operation.
- Upon completion of cargo discharge, the terminal personnel will drain the cargo hose to a shore tank designated for the cargo.
- Upon the discharge operation completion, the personnel at the pier will drain the cargo hose to an on-board tank designated.

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

The hoses draining must be done as soon as the discharge or loading operation be finished.

Oil Tankers who 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 oil tankers there are not one-way valve and can be used in both directions.

**12.2.1 Pre – Operational Meeting and Inspection**

Before any cargo or ballast operations commence, a pre – operational meeting will take place between the Loading Master or TFB Supervisor and either the vessel's Captain 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 Checklist 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 rate
  - 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/temperature/samples as appropriate to the operation.

The terminal is responsible for connecting/disconnecting the hoses and drains the shore section of the manifold.

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



### 11.2.3 Discharge Operations

The following procedures apply to discharge operations:

1. Before the discharge commencement, the Terminal shall confirm if the vessel is ready in all respects, if the vessel systems are correctly lined up, and if a terminal representative is stationed on the pier and at Operational Control Center.
2. The vessel shall ensure that the discharge valves and inert gas supply valves are correctly lined up and the crewmember responsible is standing by on vessel's manifold and check if the cargo is under gas blanket.
3. The vessel shall advise the Terminal as soon as the discharge operation begins and with a slow initial rate (as agreed in the preoperational key meeting).
4. The terminal shall advise the vessel after confirming the cargo receiving at the shore tanks.
5. The terminal shall advise the vessel when it can increase the rate.
6. During the discharge operation, the vessel shall advise the Terminal of fluctuations in the discharge rate, the status on stripping operations, and the ballast operations status.
7. The vessel shall advise the Terminal about the discharge rate and expected time to the discharge operation conclusion.

### 11.2.4 Conditions to be observed during the Operation

The terminal and vessel representatives 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 part and operations be stopped until corrected.

In addition to the procedures and precautions as recommended in the latest ISGOTT edition, is necessary the following for the vessels discharging at the Terminal:

- a) An officer, equipped with an intrinsically safe portable radio, shall be stationed next to the main cargo control station at all times.
- b) Venting of cargo tanks shall only take place through the vessel'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 in permitted.
- g) The vessel's crew is responsible for maintain presence at the vessel's manifold at all times during discharge operations.
- h) Dirty ballast cannot be discharged at the river or send to the shore tanks.

### **11.3 Ballast and De ballast**

#### **11.3.1 National Legislation**

The operations performed at the TFB S/A Terminal, basically consist in unloading, where the vessel has the need to Ballast partial or total, using water from Amazon River.

To loading operation (eventual), the shipowner shall follow the standards and legislations below:

- NORMAN - 20/2005 of DPC (Harbor and Coast Representative)
- Resolution ANVISA – RDC 72/2009.
- Federal Law 9.966/2000.

Also, the shipowner must dispose the Ballast Water Management Plan and, provide to ANVISA, appropriate form and designated by that regulatory agency.

#### **11.3.2 International Legislation**

The shipowner shall follow the ISGOTT (5<sup>a</sup> Edition) rules.

## **12.0 DOCUMENTATION**

List of applicable documents to be filled 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: TFB Terminal**

Dear Sirs:

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 cooperation 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 cooperate 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:    |
| Channel VHF:             | Channel VHF:     |

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/cm<sup>2</sup> at any time. 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 TFB Terminal Operations Manager.

Vessel's name: \_\_\_\_\_

Chief Officer: \_\_\_\_\_

TBF's Representative: \_\_\_\_\_

Date: \_\_\_\_\_



## SHIP/SHORE TRANSFER COMMUNICATIONS

Vessel's Name: \_\_\_\_\_

Terminal: TFB

Date of Arrival: \_\_\_\_\_ Time of Arrival: \_\_\_\_\_

The ship to shore communications at the TFB 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 Manager 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 meters (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: \_\_\_\_\_ m<sup>3</sup> @20°C

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

Shoreline maximum discharge rate (approximate): \_\_\_\_\_ m<sup>3</sup>/hrNormal operating discharge pressure: \_\_\_\_\_ Kg/cm<sup>2</sup>Maximum operating discharge line pressure: \_\_\_\_\_ Kg/cm<sup>2</sup>

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:

| Tanque | Capacidade (m <sup>3</sup> ) | Operacional Max (m <sup>3</sup> ) | Operacional Min (m <sup>3</sup> ) | Elevação (m) | Elevação no Topo do Tanque (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 THE APPROPRIATED FIELDS |          |
| 1. MARSEC Level of Operation (1, 2 or 3)<br>If Vessel is operating at MARSEC 2 or 3 the FPSO or Duty Manager must be contacted. |  |          |
| 2. Vessel/Facility Security Certificate Number<br>Expiry Date<br>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 such a requirement 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's Name:                     |  |
| Date:                   |  | Date:                              |  |