PORT INFORMATION

BARRA DO RIACHO WATER TRANSPORTATION TERMINAL (TABR)

ARACRUZ - ES - BRAZIL

AMENDMENT CONTROL

EDITION	REVISION	AMENDMENTS	DATE	PREPARATION	APPROVAL
3ª	2022	Phone Updates	12/29/2022	Helder Martins	Felipe José Silveira Lapa

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INTRODUCTION

This Port Information is prepared by Petrobras Transportes S.A. (Transpetro) which operates the Barra do Riacho Waterway Terminal – TABR. It provides essential information for ships operating in the Terminal. It is distributed internally in the organization; to the port stakeholders; to all ships aiming to operate in it; as well as to the local and national authority.

The Port Information of TABR has versions in Portuguese and English.

The information contained in this publication is intended to supplement, never replace or alter any type of legislation, instructions, guidance, or official, national, or international publications. Therefore, it should not be taken into account what contravenes any item of the aforementioned documents. Thus, it is emphasized to ships that intend to operate in this Terminal, that the knowledge of the Port Information of the TABR does not exempt users from knowing the provisions of the applicable Legislation/Regulation, as well as those provided for in the applicable International Conventions ratified by Brazil.

It may be necessary to completely disregard the information contained in this document, when this procedure is indispensable for avoiding immediate danger or operational risk, and the commander cannot be released from his full responsibility for the maneuver he makes through claiming fulfillment or guidance from the information presented in this document.

It must consider the dangers to navigation and of collision with the port facilities or other vessels operating in the vicinity, as well as the limitations of the vessels involved.

The Terminal reserves the right to change any of its operational characteristics set forth herein, without prior notice.

It should be noted that Transpetro will gladly accept suggestions, corrections or recommendations regarding the matters dealt with. Therefore, if wrong information is found that needs to be updated, please contact:

Management of the Waterway Terminals of Espírito Santo
Highway ES-010, km 60, s/n
Barra do Riacho - Aracruz – ES, Zip Code 29.197-554
Phone: (27) 3194-4153
Route: 740.4153

The most recent version of this TABR Port Information can be obtained through the following electronic address: www.transpetro.com.br.

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DEFINITIONS

- **AID TO NAVIGATION -** Set of all the visual, audio, and radio-electric resources for use of the navigator, with the purpose of enabling them to recognize their position;
- **BP (**Bollard Pull) – Longitudinal static traction;
- **BUNKER** – Maritime fuel for ships;
- **CALM** (Catenary Anchor Leg Mooring) - Anchoring system and installation of the monobuoy / hose set;
- **COW** (Crude Oil Washing) - cleaning of the ship's loading tanks with the product carried by the ship;
- **CRE** – Emergency Response Center;
- **Dwt** – Deadweight;
- **SQUAT EFFECT -** Increased draught of a ship as a result of increased travel speed;
- **BEAUFORT SCALE-** Scale that measures wind intensity from the state of the sea;
- **ETA** (Estimated Time of Arrival) – Estimated time of arrival;
- **GIAONT** – Ship / Terminal Operational Inspection and Monitoring Group;
- **IMO –** International Maritime Organization;
- **ISGOTT** – International Safety Guide for Oil Tankers and Terminals;
- **ISPS CODE** – International Ship and Port Facility Security Code;
- **LOA** - Overall Length
- **LVSO –** Operational Safety Checklist (ISGOTT);
- **MANIFOLD –** Set of load outlets and valves, located at midship, where the arms and oversleeves are connected for loading or unloading operation;
- **Dry tide** – Condition in which the tide reaches the minimum amplitude at certain times of the year;
- **Spring tides** – Condition in which the tide reaches its maximum amplitude at certain times of the year;
- **NE –** Northeast;
- **NT** – Tanker;
- **OCIMF (Oil Companies International Marine Forum);**
- **PEI -** Individual Emergency Plan;
- **DEADWEIGHT:** Difference between the weight of the ship with the maximum authorized loading and the weight of the light ship. This difference, which can be expressed in metric tons, corresponds to the weight of the loading, passengers and their luggage, fuel and lubricants, water and food;
- **PRE:** Emergency Response Plan;
- **PLEM (Pipe Line End Manifold) –** Set of valves and pipelines at the end of the subsea pipeline;
- **S –** South;
- **SE –** Southeast;
- **SLOP** – Waste tank;
- **SOLAS** – Safety of Life at Sea – International Convention for the Safety of Life at Sea;
- **SW** – Southwest;
- **TPB** - Gross Tonnage.
- **VHF** (Very High Frequency) – Radio frequency used in maritime operations;
- **VTS** (Vessel Traffic Service) – Traffic service for the vessel;
- **W –** West;
- **ZP –** Pilotage Zone;

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NAUTICAL CHARTS AND REFERENCE DOCUMENTS

3.1 – NAUTICAL CHARTS

Information regarding the Terminal can be obtained from the following related publications:

AREA	TYPE OF CHART NUMBER		
	Brazil (DHN)	US Hydrographic Office	British Admiralty
Anchoring and Approach to Port	1,420		
Entrance to the Port and Channels	1,420		
Terminal and Approach Area	1,420		

3.2 – OTHER PUBLICATIONS

In addition to the information contained in the aforementioned Charts, other information and data about the Terminal can be obtained from the documents below:

NORMAP 2 - Traffic Standards and Permanence of Ships and Vessels at the Port of Barra do Riacho	Port Authority – CODESA – Port of Vitória
NPCP-ES - Standards and Procedures of the Port Authority of Espírito Santo	Maritime Authority – Port Authority of ES CPES
NORMAM – Maritime Authority Standards	Maritime Authority – Port Authority of ES CPES
Roadmap – East Coast	Board of Hydrography and Navigation DHN
Headlamp List	Board of Hydrography and Navigation DHN
Tide Table	Hydrography Center of the Brazilian Navy

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DOCUMENTS AND EXCHANGES OF INFORMATION

The table below shows who is responsible for preparing each of the documents; to whom they should be delivered; and the type of document:

INFORMATION	ELABORATED BY:			DELIVERED TO:			COMMENTS
	Terminal	Ship	Both	Terminal	Ship	Both	
Prior To Arrival							
Estimated Arrival (ETA) and Vessel Information		X		X			According to Appendix B
Basic information about the Terminal and the operation	X				X		According to Appendix C
Before transfer of loading							
Details of loading, slop and ballast on board.		X		X			According to Appendix B
Essential information for the operation	X				X		Compliant Appendix C
Ship / Land Safety Checklist			X			X	According to Appendix C
During loading transfer							
Repeat the Ship/Shore Safety Checklist			X			X	According to Appendix C
After loading transfer, before ship departure							
Information required for unberthing the ship			X			X	Quantity of fuel and water on board
AFTER UNBERTHING, ON LEAVING THE PORT							
Information related to the port departure data		X		X			Official time of departure from the Port and Pilot disembarkation time

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DESCRIPTION OF THE PORT OR ANCHORAGE

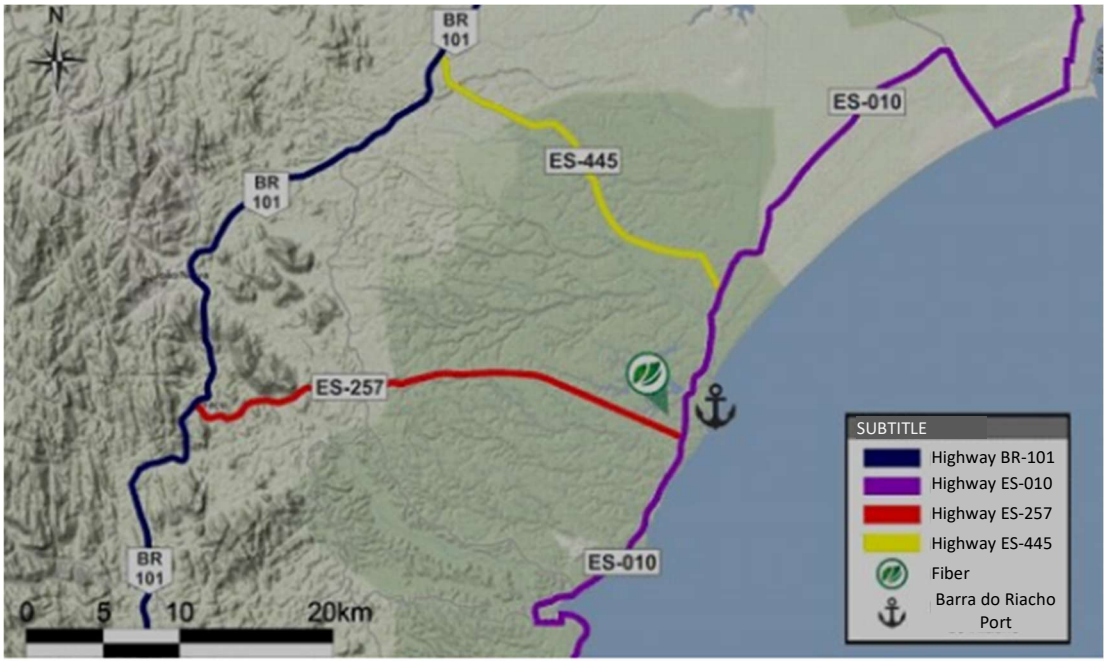
5.1 – OVERVIEW

The Port of Barra do Riacho (TABR), is comprised within the organized port area belonging to Companhia Docas do Espírito Santo (CODESA). The Terminal is located in the locality of Barra do Riacho, municipality of Aracruz, Espírito Santo, south of the Riacho river bar. The port area is delimited by the two protection piers – North and South – and by Concha Beach.

The port facilities of the terminal are included in the coastal area called “Praia da Concha” delimited by the shelters of the port of Barra do Riacho, 2 km from the FIBRIA factory.

Barra do Riacho Port

The road access made from the Capixaba Capital (Vitória) can be made via coastal route by ES-010, passing through the localities of Manguinhos, Jacaraípe, Nova Almeida, Santa Cruz and Barra do Sahy, corresponding to a distance of about 80km. Alternatively you can use the inland highways, when you will travel about 110km away. In the latter option, the BR-101 will be used, which connects to the ES-257 highway in the city of Ibiraçú, passing through the municipality of Aracruz, and then going to Barra do Riacho.



Main road accesses

5 .2 - LOCATION – APPENDIX A

5.2.1 - COORDINATES

The TABR is installed at the following coordinates:

TERMINAL	LATITUDE	LONGITUDE
BARRA DO RIACHO	19° 50’ 33’’S	040° 03’ 35’’ W

5.2.2 – GENERAL GEOGRAPHIC LOCATION

TABR is located in Barra do Riacho, municipality of Aracruz, north coast of the State of Espírito Santo, on the Southeast Coast of Brazil, about 30 nautical miles (70 km) north of the Port of Vitória, to which it is jurisdicted, comprises the infrastructure of protection and waterway access to the Port. Consisting of anchorage areas, access channel, evolution basin and areas adjacent to it up to the banks of existing or future built onshore port facilities; and onshore port facilities located in the municipality of Aracruz.

Its facilities are located at the following address:

PETROBRAS TRANSPORTE S.A. - TRANSPETRO
Barra do Riacho WATERWAY TERMINAL
Highway ES-010, km 60, s/n
Barra do Riacho - Aracruz – ES, Zip Code 29.197-554

5.3 – TERMINAL APPROACHES

5.3.1 – OVERVIEW

Located in a low region, without notable geographical accidents, the terminal is recognized by the facilities of the Aracruz Celulose factory, whose main building can be seen 20 nautical miles from any direction. Between

15 and 10 nautical miles are recognized the buildings of the port facilities, the factory chimneys and the Barra do Riacho lighthouse. Between 10 and 5 nautical miles appear the North and South piers and the lighthouses of their ends.

In the demand of the place of embarkation and disembarkation of pilot there are no dangers to avoid.

Access to the Port of Barra do Riacho is carried out through a channel marked from the light alignment heading 249° 30' of entry, between buoys No. 01 and No. 02, to the maneuvering area inclusive, totaling an extension of approximately 1,010 meters.

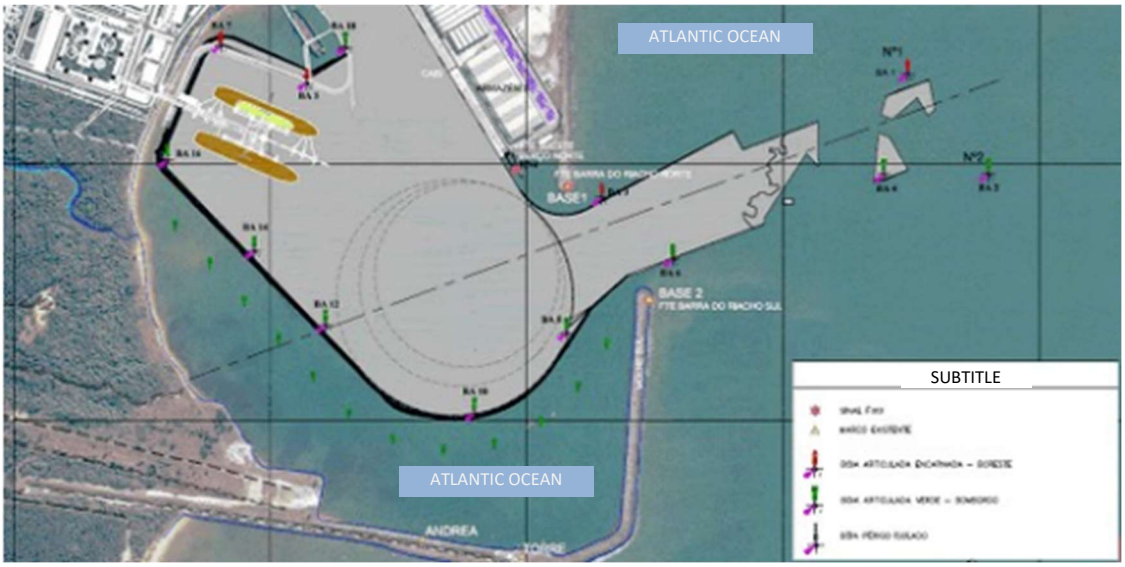


Figure 2: Access channel beaconing

5.3.2 – ANCHORAGES

5.3.2.1 - Prohibition Area for Anchoring or Permanence of Vessels

The area comprised by the points below is considered as operational area of approach to the port access channel. In order to contribute to the safety of navigation, vessels, tugboats, speedboats, boring boats, fishing boats and other vessels must observe the restriction of prohibition for anchoring and/or permanence in this area comprised by the positions of geographical coordinates:

- Lat. 19° 50' 00'' S // Long. 039° 57' 48'' W;
- Lat. 19° 50' 00'' S // Long. 040° 00' 00'' W;
- Lat. 19° 49' 06'' S // Long. 040° 00' 00'' W;
- Lat. 19° 52' 00'' S // Long. 040° 02' 36'' W;

and

- Lat. 19° 49' 42'' S // Long. 040° 02' 36'' W;
- Lat. 19° 52' 30'' S // Long. 040° 00' 00'' W;
- Lat. 19° 51' 00'' S // Long. 040° 00' 00'' W;
- Lat. 19° 51' 00'' S // Long. 039° 57' 48'' W;

Anchoring is also prohibited in the area near the South jetty and 1 nautical mile to the submarine outfall of the Aracruz Celulose factory as indicated in the reverse plan of Nautical Chart No. 1420 of the Board of Hydrography and Navigation (DHN) – Brazilian Navy.

5.3.2.2 – External Anchorage

The anchorage area preferably intended for ships or vessels with normal waiting time, scheduled for the TABR Waterway Terminals, in accordance with the Traffic Standard and permanence of ships and vessels in the port of Barra do Riacho (CODESA - NORMAP-2), is delimited by the positions of geographical coordinates:

- Lat. 19° 50’ 00” S // Long. 039° 57’ 48” W;
- Lat. 19° 50’ 00” S // Long. 040° 00’ 00’’ W;
- Lat. 19° 49’ 06’’ S // Long. 040° 00’ 00’’ W;
- Lat. 19° 49’ 06’’ S // Long. 039° 57’ 48” W;

Ships to be submitted to Naval Inspection, Federal Police Inspection (NEPON), Health Inspection (ANVISA) or upon concession by the Maritime Authority, have as a point of geographical coordinates for waiting:

- Lat. 19° 49’ 00” S // Long. 040° 01’ 00” W;

5.3.2.3 – Internal Anchorage

Not available.

At the discretion of the Port Administration, and with the consent of the Maritime Authority, the Evolution Basin may be used as an internal anchorage in emergency situations or for the safeguarding of human life at sea.

5.3.3 - AIDS TO NAVIGATION

In the demand of the place of embarkation and disembarkation of pilot there are no dangers to avoid.

To enter the terminal bar there is a light alignment, at 249 ° 30’.

The channel for access to the terminal is beaconed with lighted buoys at starboard and port, numbered.

The following points assist the landing and demand of the Barra do Riacho terminal:

- **Barra do Riacho Lighthouse**
  - Order No.: 1868;
  - Position: Lat.: 19° 50.04´S // Long.: 040° 03.80´W;

- **Barra do Riacho Lighthouse**
  - Order No.: 1872;
  - Position: Lat.: 19° 50.63´S // Long.: 040° 03.27´W;

- **Barra do Riacho Lighthouse**
  - Order No.: 1876;
  - Position: Lat.: 19° 50.75´S // Long.: 040° 03.18´W;

- **Previous Alignment**

- Order No.: 1897;
- Position: Lat.: 19° 50.87´S // Long.: 040° 03.74´W;

- **Posterior Alignment**
  - Order No.: 1898;
  - Position: Lat.: 19° 50.92´S // Long.: 040° 03.88´W;

- **Notable Chimney**
  - Order No.: 1900;
  - Position: Lat.: 19° 50.46´S // Long.: 040° 04.82´W;

NOTE: More detailed characteristics of the headlights and other brands should be consulted in the publication in force of the List of Headlights - Directorate of Hydrography and Navigation (DHN) – Brazilian Navy.

5.3.4 – PORT LIMITS

Access channel and inland waters are delimited by the positions of geographical coordinates:

- Lat. 19° 49’ 24” S //Long. 040° 04’ 20” W;
- Lat. 19° 49’ 24” S // Long. 040° 03’ 00” W;
- Lat. 19° 51’ 30” S // Long. 040° 03’ 00” W;
- Lat. 19° 51’ 30” S // Long. 040° 04’ 20” W;

5.3.5 – PORT CONTROL OR VTS

According to the guidelines contained in the Maritime Authority Standards for the Traffic and permanence of Vessels in Brazilian Jurisdictional Waters, NORMAM-08/DPC, the entry and exit control of the Ports of Espírito Santo is exercised through the Center for Coordination and Control of Maritime Activities (CCCAM), whose radio code is PWG77 and operates in the Department of Waterway Traffic Safety of CPES, permanently garrisoning channel 16 in the VHF range, as well as the telephone (27) 2124-6526/6523 and the email cpes.merep@marinha.mil.br.

All vessels, foreign and national, during their movement and stay in the port areas of jurisdiction of this Captaincy, must maintain contact with CCCAM, through maritime agencies or their legal representatives, through the Paperless Port System (PSP), at cpes.merep@marinha.mil.br, on contact phones, on channel 16 in VHF, or in person.

All VHF radio communications within the coverage area shall be objective, concise and in accordance with IMO Standard Marine Communication Phrases (SMCP) standard radio communication procedures.

All Merchant Ships in the anchorage area, or in movement of entry and exit in the ports of Espírito Santo must remain with their AIS on.

5.3.6 – PILOTAGE

The Pilotage service is mandatory in the Port of Barra do Riacho, and executed through the Union of Pilots of the State of Espírito Santo, in accordance with the concepts and instructions defined in the Rules of the

Maritime Authority (NORMAN) and Rules and Procedures of the Port Authority do Espírito Santo (NPCP-ES). This obligation occurs from the entrance of the access channel, except those provided for in Norman-12, item 0404.

Mandatory pilotage areas have as limits the places of embarkation and disembarkation, marked on the chart, and those of berthing or unberthing.

The pilot request must be made to the "Pilotage of Espírito Santo", through the ship 's maritime agency or its representatives, in Vitória. Its headquarters is at Rua Abiail do Amaral Carneiro, 41, 9º andar, Enseada do Suá; telephone (27) 3200-3898; fax (27) 3325-4586; e-mail pratagem@praticagem.com.br. The Pilotage maintains permanent listening in VHF radio telephony, channels 16 and 74, in English and Portuguese.

The minimum time for requesting a pilot is four (04) hours in advance.

It should be noted that each Commander is solely responsible for the maneuvers, being responsible for all information to be provided to the Pilot about any peculiarities, specific conditions or existing difficulties, such as deficiency of machinery, boilers, problems or malfunctions of navigational aids, mooring lines or any element that may entail danger with regard to mooring/unmooring, operation, safety of the ship as well as the Terminal facilities.

If the Commander does not abide by the pilot's instructions, in order to preserve the safety of the maneuvering of the ship, the Captain of the Port, by means of the agency of the ship, must be informed in writing. This fact must be reported to the terminal supervisor by the ship's agency or its representatives.

5.3.6.1 IMPRACTABILITY

According to the Rules and Procedures of the Port Authority of Espírito Santo (NPCP/ES), it is the responsibility of the Port Captain to declare the impracticability of the bar. Impracticability is the situation that is configured when weather conditions, sea state, accidents or facts of navigation or technical deficiencies imply an unacceptable risk to the safety of navigation, discouraging the performance of pilotage tasks, vessel traffic and/or the embarkation/disembarkation of the Pilot. The declaration of impracticability in this ZP, in whole or in part, is the legal competence of the Port Captain.

The declaration of impracticability will follow basic parameters, such as the wind intensity condition above Force 7 on the Beaufort Scale and/or the presence of vacancies in the evolution basin corresponding to sea state 4 on the Douglas Scale. In such cases, at the discretion of the Port Captain, the impracticability may apply to the entire ZP or be partial, when the restrictions on the execution of pilotage tasks apply only to certain locations, vessels, maneuvers and/or pilotage navigation.

Once it is found that the sea, wind and visibility conditions are unfavorable, the Pilotage, through its legal representative, must request impracticability to the Port Authority, specifying the conditions prevailing in the region that were preliminarily considered as a risk to the safety of waterway traffic, the safeguarding of human life, the preservation of the environment or pilotage tasks in the ZP, such as:

a) Adverse weather and sea status in the bar, pilot waiting point, access channel, evolution basin and maneuver area;
b) Specific conditions of the vessel, berth and board;
c) Wind direction and intensity, including in gusts;
d) Restricted visibility;
e) Vessel's sail area to be maneuvered;
f) Relationship between draft and freeboard of the vessel to be maneuvered;
g) Period, height and direction of vacancies;
h) Occurrence of ripple and wind in different directions (bimodality);

i) Occurrence of transverse currents;
j) Type, power and quantity of tugboats to be used;
k) Limitation of the operation of tugboats due to the balance;
l) Deficiency in nautical signaling;
m) Parameters established in maneuver simulators;
n) Accidents or facts of navigation; and
o) Other technical deficiencies of the ship or crew.

CPES will inform, by e-mail, the total or partial impracticability of ZP to Pilotage, Port and Terminal Administrations, which must be relayed to vessels, shipowners and other members of the Maritime Community and interested parties.

5.3.7 - TUGBOATS AND PORT SERVICES

It is mandatory to use a tugboat in the maneuvers of ships and vessels in the Waterway Port of Barra do Riacho, in accordance with the concepts and instructions defined in the Maritime Authority Standards (NORMAM) and Standards and Procedures of the Port Authority of Espírito Santo (NPCP-ES).

All vessels operating in the TABR, which are classified as to service and activity as tugboats, must comply with the provisions of the Rules of the Directorate of Ports and Coasts (DPC) pertinent to the subject.

It will be up to the Shipowner/Navigation Company or its Navigation Agency (legal representative, agent and/or agent at the port) to request the tugboats necessary for the maneuvers to be carried out. At the time of the maneuver, the vessel's Commander will decide the device for the towing, that is, the number of tugboats and their positions to form the necessary force torque, and it is recommended to listen to the suggestion of the Pilot. The towing lines and other materials to be used in maneuvers with the tugboats must be adequate to the safety requirements for the maneuver. Its supply must be the product of an agreement between the contractor, shipowner or agent, and the contractor, the tugboat company.

The Commander of the ship will be liable for the final decision on the use of materials suitable for maneuver and devices.

In tugboat maneuvers, close to the bow of the ships, the passage of the towing line is prohibited by lowering it through the bow to be picked up with croque by the trim of the tugboat. The cable must be passed through a straight line, launched from the bow castle towards the tugboat deck, in order to avoid excessive tugboat/ship approach, reducing the effects of hydrodynamic interaction between the vessels.

The service of speedboats for loading ranch and material, garbage collection and supply of lubricants, when moored, will be allowed upon authorization from the Terminal. This service must be contracted via agency, and the Terminal, through GIAONT, together with the Ship's Service Officer, must evaluate the safety conditions of the operation.

5.3.8 – NAVIGATION RISKS

Access to the Port of Barra do Riacho is carried out through a channel marked from the light alignment heading 249° 30’ of entry, between buoys No. 01 and No. 02, to the maneuvering area inclusive, totaling an extension of approximately 1,010 meters.

Provided that the lateral limits of the beaconed channel are respected, no navigations risks have been found for the anchoring area at the facilities of the Waterway Terminal of Barra do Riacho.

Special attention should be paid to the passage through the tips of the jetties and subsequent reversal of machines for stopping and turning in the evolution basin.

The maximum speed of the adopted ships are as follows: Entry - 08 (eight) knots; Exit - 05 (five) knots;

5.3.8.1 – ACCESS CHANNEL

a) Operational Characteristics

- Length 1,010 meters;
- Design width 160 meters;
- Project depth 13.40 meters (sand bottom);
- Dredging depth 13.10 meters

5.3.8.2 – Restrictions regarding ships (oil and gas tanker)

- Maximum deadweight 60,000 metric tons
- Maximum total length 230.00 meters;
- Maximum mouth 35.00 meters;
- Maximum Draught:
  - ✓ length up to 201.99 meters: inlet 10.30 meters plus tide; exit 11.00 meters;
  - ✓ length up to 202.00 up to 213.99 meters: entrance 08.50 meters; exit 11.00 meters;
  - ✓ length up to 214.00 up to 230.00 meters: entrance 07.50 meters; exit 11.00 meters;

5.3.9 - GENERAL RESTRICTIONS

Maneuvers of entry and exit of ships or other vessels to the TABR with a length greater than 130.00 meters will only be carried out in the daytime period.

There are no hazards in the access channel and in the area between the jetties and the terminal where the depths are above 10m.

When the conditions for approach or stay at the pier require precautions, the GIAONT must be engaged, so that he can evaluate the safety conditions and advise the Commander with regard to his decision to carry out the maneuver for mooring or stay at the pier.

Caution is recommended when the meteorological conditions reach the following measurements:

- South wind with average speed above 25 knots;
- Bottom swell with an average height of more than 60 cm;
- Waves taller than 1m;

Constraint Regarding Linear Dimensions:

- Daytime maneuvers: length of 230 meters and mouth of 35 meters;
- Night maneuvers: length of 130 meters and mouth of 35 meters.

Regarding the Operational Limits:

- Mooring at the piers, Berth 501 (PN) and Berth 502 (PS), is limited according to the table below:

BERTH	Gross Deadweight	Max. lenght	Minimum Length	Maximum draft	Maximum Freeboard	Minimum Freeboard
PN	60.000	230m	40m	10m	13m	4m
PS	60.000	230m	50m	10m	13m	4m

5.4 -MANEUVERING AREA

✓ The Evolution Basin, for turning ships and vessels of the Port of Barra do Riacho, is delimited by a circumference of 620 meters in diameter centered on the point of coordinates 19° 50' 44.62" S and 040° 03' 24.10" W, being composed of a circle of 230 meters in radius with a design depth of 13.00 meters, plus a minimum safety clearance additional to this radius of another 80 meters.

a) Operational Characteristics:

- Diameter 460 meters;
- Radius 230 meters;
- Project depth 13.0 meters (sand bottom);
- Dredging depth 13.30 meters;
- Additional safety clearance to the radius 80.00 meters;

a) Ship Restrictions:

- Maximum deadweight (tanker and gas tanker) 60,000 metric tons;
- Maximum total length 230.00 meters;
- Maximum mouth 35.00 meters;
- Maximum draft 11.90 meters plus tide;

5.4.1 – AIDS TO NAVIGATION AND BERTHING

There is no equipment to assist/monitor on the piers (speed/distance) to assist in approach/mooring maneuvers.

5.4.2 – DEPTH CONTROL

Local depth control is the responsibility of the port authority, which will work together with port operators and piloting in order to keep the maximum allowed draft updated.

5.4.3 - MAXIMUM DIMENSIONS

✓ **Operational Characteristics of the Port:**

a) Berth 501 (PN)

a.1) Approach Channel

Operational Characteristics:

- Length 460.00 meters;

- Project width 105.00 meters;
- Project depth 12.20 meters (sand bottom);
- Dredging depth 12.50 meters;

Ship Restrictions:

- Maximum deadweight 60,000 metric tons;
- Maximum total length 230.00 meters;
- Maximum mouth 35.00 meters;
- Maximum draft 10.00 meters;

a.2) Cradle Basin

Operational Characteristics:

- Operating Length 287.50 meters;
- Project Width 43.75 meters;
- Berth 110.00 meters;
- Project depth 12.20 meters (sand bottom);
- Dredging depth 12.50 meters;

Ship Restrictions:

- Maximum deadweight 60,000 metric tons;
- Maximum total length 230.00 meters;
- Maximum mouth 35.00 meters;
- Maximum draft 10.00 meters;

a) Berth 502 (PS)

b.1) Approach Channel

Operational Characteristics:

- Length 460.00 meters;
- Project width 105.00 meters;
- Project depth 12.20 meters (sand bottom);
- Dredging depth 12.50 meters;

Ship Restrictions:

- Maximum deadweight 60,000 metric tons;
- Maximum total length 230.00 meters;
- Maximum mouth 35.00 meters;
- Maximum draft 10.00 meters;

b.2) Berth Basin

Operational Characteristics:

- Operating Length 287.50 metric tons;
- Project Width 43.75 meters;

- Berth 110.00 meters;
- Project depth 12.20 meters (sand bottom);
- Dredging depth 12.50 meters;

Restrictions on vessels:

- Maximum deadweight 60,000 metric tons;
- Maximum total length 230.00 meters;
- Maximum mouth 35.00 meters;
- Maximum draft 10.00 meters;

5.5 - ENVIRONMENTAL FACTORS

The climate of the Brazilian coast in this region is well marked by the existence of two predominant seasons: rainy summers and dry winter and with mild temperatures. The average annual temperature is around 26°C.

In winter, weather conditions along the coast are influenced by the passage of cold fronts associated with low-pressure zones every 15 days on average. These depressions are characterized by strong winds from the South/Southeast or South/Southwest quadrant. Winds with forces ranging from 6 to 10 on the Beaufort scale.

In spring, the sea prevails calm in coastal waters, with little influence from sea and land breezes. Typical winter conditions vary rapidly during the season and can cause bad weather.

Summer is marked by specific climatic conditions, with a predominance of North/Northeast winds, with medium intensity, little wave formation along the coast and days with high temperatures. The state of the sea is little influenced by the passage of winds from the South/Southeast quadrant.

In autumn, calm seas predominate in coastal waters. Sea and land breezes are minimal. The passage of typical winter disturbances grows slowly in frequency during this season and can cause short periods of bad weather, in April and especially in May, in the conditions described for winter.

Fog is a relatively rare phenomenon in the region. When it occurs on land (on the coastline) it can hide nautical signals used as a reference for landing.

5.5.1 – PREVAILING WINDS

From October to March the prevailing winds are NNE/ENE, and from April to September the winds normally blow from SSE/SW. The intensity of the prevailing winds in this region is of force 2 and 4 of the Beaufort scale, and in the period of April /September, strong gusts of wind can occur, coming from SSW (210°) and can reach the speed of up to 40 Knots.

5.5.2 - WAVES AND SAVES

Rough seas are usually caused by the south wind. When there are no strong winds coming from the South the sea is calm with waves of at most 0.5 meters high.

In the winter months, swell-type waves from the S/SE may occur, which can cause rocking of the ship, requiring special care during mooring, even though the pier is sheltered.

5.5.3 - RAINFALL

The predominant characteristic is sparse and short rains, with severe and long rains being rare.

5.5.4 – LIGHTNING STORM

Lightning storms are not common, but they can occur with the passage of cold fronts.

5.5.5 - VISIBILITY

Visibility limitation is rare and may occur during heavy rains or on unusual occasions of fog.

5.5.6 – TIDAL CURRENTS AND OTHER CURRENTS

The tide has mixed tidal characteristics, with the average level 22 cm above the reduction level of the chart and suffering great meteorological influence, that is, caused by local winds.

With wind S, the tide usually fills and dams the water in Lagoa dos Patos; with wind N, the opposite occurs.

In calm, the tide is zero, because this region of the globe is of zero tide.

In the vicinity of the jetties, with wind S the flood current can reach 3 knots; with wind N, the ebb current can reach 5 knots.

In the vicinity of the pairs of buoys 1-2 and 3-4 of the access channel to Porto Novo, the strong ebb current brings the ship closer to buoys 1 and 3.

5.5.7 – VARIATION OF TIDE LEVELS

Exact values of tidal current amplitude and intensity can be obtained from DHN publications (Tidal Table and Tidal Current Chart for the Creek Bar Terminal).

Tidal variations can reach up to 1.5m, combined with lunar and meteorological tides.

5.5.8 – MEASUREMENTS

The Terminal does not have a meteoceanographic station. The meteorological information is acquired in meteorological bulletins, published on the website of the Hydrography Center of the Brazilian Navy – Delta Area.

The density of seawater in the region is 1,025 g/cm^3.

The average annual temperature is around 26°C.

6

DESCRIPTION OF THE TERMINAL

6.1 - OVERVIEW

Inaugurated in 2013, it entered into operation to allow the storage and flow of LPG and C5+, produced at the Cacimbas Gas Treatment Unit (UTGC), from the processing of natural gas and condensate produced in the fields of the Espírito Santo Basin, as well as receiving ships for loading/unloading pressurized and refrigerated LPG, and ships for C5+.

The TABR pier is designed with an operational platform of the type "Jetty - Finger Jetty", with 02 (two) berths, called Berth 501 (PN) and Berth 502 (PS).

The port area is delimited by the two protection piers – North and South – and by Concha beach. It consists of anchorage areas, access channel, evolution basin and adjacent areas to the banks of existing or future built onshore port facilities; and onshore port facilities located in the municipality of Aracruz.

It is operated by Petrobras Transporte S.A. - Transpetro.

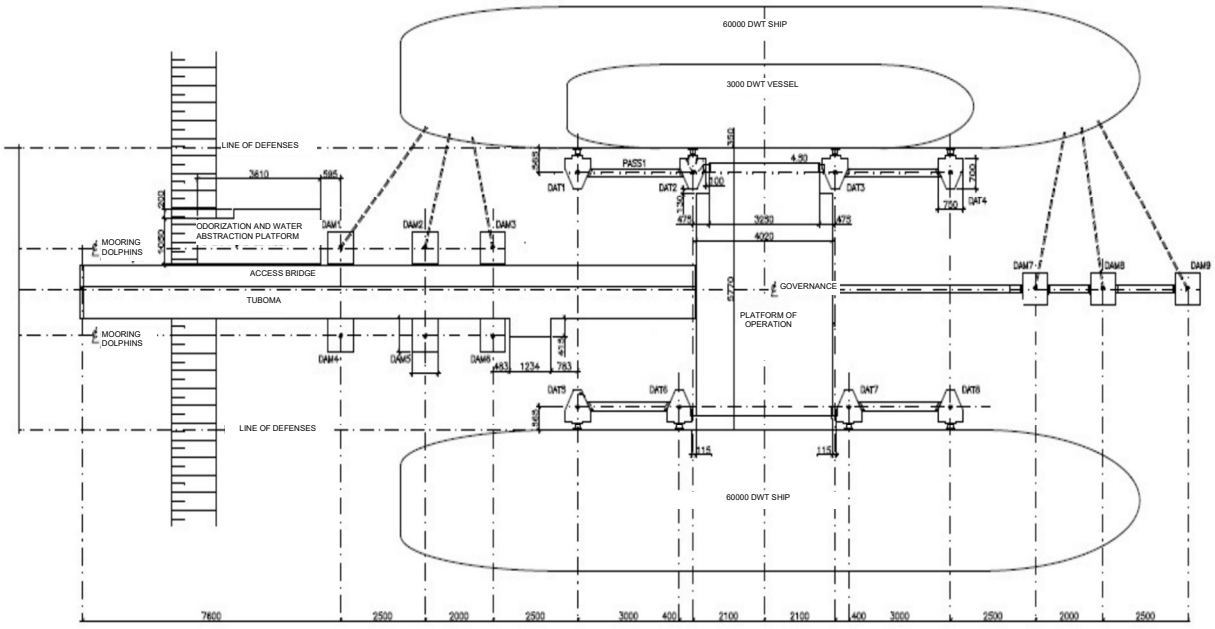
6.2 – PHYSICAL DETAILS OF THE BERTH

BERTH	BERTH TYPE	Coasting wharf (m)	DEPTH (m)	TIDE (m)	
				Syzygy	Dry
Berth 501 (PN)	Jetty - Finger Jetty	110,0	10.6	1.6	-0.10
Berth 502 (PS)	Jetty - Finger Jetty	110,0	10.6	1.6	-0.10

BERTH	MOVED PRODUCTS	MAXIMUM LENGTH OF SHIP (m)	MOUTH (m)	MAXIMUM DEADWEIGHT (TPB)	FREEBOARD		MINIMUM PARALLEL SIDE distance (m)
					MAXIMUM (m)	MINIMUM (m)	
PN	C5+ / LPG	230	35	60,000	13	4	40
PS	C5+ / LPG	230	35	60,000	13	4	50

6.3 - MOORING AND MOORING ARRANGEMENTS

The TABR pier has 8 fenders, four in each berth (Berth 501 (PN) // Berth 502 (PS)).



Each berth (PN // PS) has 10 mooring points composed of capstans and quick release hooks, 8 double (2 hooks at the same mooring point) and 2 triple (3 hooks at the same mooring point). The capacity of each mooring hook is 750kN (SWL – Safety Work Load). Capstans have a traction capacity of 2.0 tons.

Approach			Mooring Points		Mooring Lines (Bow x aft)		
Berth	Maximum Speed (Nodes)	Maximum angle (°)	Bitts	Hooks	Launchers	Flank	Springues
PN	0.5	5	0	22	3 x 3	2 x 2	2 x 2
PS	0.5	5	0	22	3 x 3	2 x 2	2 x 2

As for the use of tugboats, we have the following:

Discriminated by LOA ranges, we classified the ships into 4 groups:

Group	*LOA (m)*
Group 1	up to 130
Group 2	from 130 to 170
Group 3	170 to 187
Group 4	from 187 to 230

For mooring ships in the TABR, the following is considered:

For group 1 ships are considered two azimuthal tugs of 40 TBP; For group 2 ships are considered two azimuthal tugs, one of 40 TBP and another of 60 TBP; For group 3 ships are considered two azimuthal tugs of 60 TBP each; For group 4 ships, are considered three azimuthal tugs of 60 TBP each.

6.4 – CHARACTERISTICS OF THE BERTH FOR LOADING AND UNLOADING

MOVED PRODUCTS	ARM	RECEIPT OR SHIPMENT	TEMPERATURE (°C)		MAXIMUM FLOW (m³/h)	Maximum Pressure (Bar)
			MINIMUM	MAXIMUM		
GLP/C5+ BC-6413402 A/B/C/D	4 x 10"	Both	-45	70	450 to 630 (Pressurized LPG) 1379 to 2070 (Refrigerated LPG) 1500 to 2000 (C5+)	25
GLP BC-6413401 A/B	2 X 6"	Both	-45	70	520 (Pressurized LPG) 1333 (Refrigerated LPG)	25

6.5 - OPERATIONS MANAGEMENT AND CONTROL

The Operations Control Center (OCC) is located in the administrative building, to the right of the pier exit, about 300 m from the ship/terminal access. In this place is centralized the control of operations and the exchange of information with the ship.

Communications are carried out through VHF radios at a previously agreed maritime frequency and recorded on VHF channels 10 and 16.

The control of operations is carried out following the guidelines of local, corporate and internal and external rules procedures to the Petrobras system.

A secondary means, through mobile telephony, is set in case of failure of the main system.

CCO TABR: +55 27 9.9507.6670

As it is an industrial area, crew traffic is restricted and is limited to the paths established for pedestrian traffic.

Safety Inspections are carried out as described in the ISGOTT (Safety Checklist (LVSO) - ISGOTT, carried out by the GIAONT – Transpetro group. The start of the operation will only be authorized when all possible pending issues of LVSO are resolved by the ship.

6.6 – MAIN RISKS

Excessive speed when approaching the pier must be avoided since there is a risk of structural damage to the pier. The approach speed of the ship perpendicular to the line of defenses (Vp) must be, according to the Calculation of the energy of mooring, equal to or less than 0.15 m /sec.

There is no equipment to assist/monitor on the piers (speed/distance) to assist in approach/mooring maneuvers.

The Terminal does not have a weather forecast service at its facilities.

During the entire period in which they are in the coverage area of the Terminal, ships must monitor the weather forecasts for the DELTA area region of the Brazilian Navy Hydrography and Navigation Center.

Lightning storms are rare, but at the discretion of the Terminal and/or vessel, when they occur, the operation must be stopped.

Caution is advised when the weather conditions measured by the ship reach the following measurements:

· South wind with average speed above 25 knots;
· Bottom swell with average height greater than 60 cm;
· Waves with height greater than 1m.

In these conditions, at the discretion of the Terminal and with the consent of the Commander of the ship, the need must be evaluated for unmooring the ship, to avoid damage to it and to the Terminal, due to excess impacts resulting from the waves.

Regarding the impracticality for maneuvering, see item 5.6.3.1 of this manual.

7

PROCEDURES

During the stay of the vessels in the TABR, several actions are carried out to enable safe operation and manage risks in order to minimize them.

In all phases, as described below, measures are taken with the objective of facilitating operations and planning them properly.

Planned actions include the exchange of appropriate information and the agreement, between the parties involved, of the safety standards to be performed.

Some of the items to be treated, although not exhaustive, are mentioned below, and others, which are considered relevant to ensure safe operating conditions, may be agreed between the parties that carry out the operations.

7.1 - BEFORE ARRIVAL

7.1.1 The ship that intends to operate in the TABR must send, in advance, and filled in, the information contained in Appendix B, considering that this information is essential for the preparation of the operation.

The Terminal will send before the arrival of the ship a list of information based on ISGOTT (Pre-Arrival Exchange of Informations) – Appendix C. It will also send the Port Information Booklet of the Terminal (Port Information) through the Agency after confirmation of the operation at the terminal. As well as the list of documents required for release with local authorities.
The start of operations will only be authorized when all possible pending issues of the Safety Checklist – LVSO (ISGOTT) are resolved by the ship.

7.1.2 Repairs on board and washing in the ship's loading tanks cannot be carried out with the ship moored. They should preferably be carried out in the anchorage area. In order to perform these services with the ship moored, prior authorization from the Terminal will be required.

7.1.3 Ships destined for TABR facilities must indicate the estimated arrival time (ETA), 48 and 24 hours in advance. Change or confirmation of the arrival of the ship must be communicated a minimum of 24 hours in advance. In the ETA information, it must be specified by the vessel whether the time mentioned is local or GMT.

The arrival time is considered the moment the ship reaches the anchorage area or in bad weather conditions that make anchoring impossible, the time of the end of the ship's voyage plan (End of Sea Passage - EOSP).

Ready-to-operate notification will only be accepted if the ship is actually, in all respects, ready to commence operation.

The order of mooring of ships in the TABR is defined by Transpetro's schedule.

7.2 - ARRIVAL

7.2.1 Port Authorities

The port authorities are engaged by the agents of the ships due to the arrival and plan for mooring. As a general rule, the visit and dispatch are carried out by the maritime agency, after berthing.

7.2.2 Bunker and Water Supply

There is no bunker and water supply at the Barra do Riacho Waterway Terminal (TABR).

7.2.3 Relevant Information

The information to be exchanged between the Terminal and the Ship, prior to arrival, is described in Appendices “B” and “C”, according to ISGOTT recommendations.

7.2.4 Emergency contacts, see chapter 9. Useful contacts see chapter 10.

7.3 - ANCHORING

7.3.1 Mooring system of the ship

The mooring lines require constant precautions in order to keep the moored ship within the safe limits of distance from the pier. All cables need to be kept under adequate tension during operation, paying attention to the fact that the beams present with reduced lengths and, consequently, have less elasticity, resulting in a greater probability of rupture when suffering too much effort.

Al the mooring lines must be of the same type, gauge, and material (fiber or steel), i.e., mixed moorings are not permitted.

There must be no overlapping of two cables on the same hook. The mooring lines must be arrange as symmetrically as possible in relation to the midship of the vessel.

The beams shall be oriented as perpendicular as possible to the longitudinal axis of the ship.

Spring lines should be oriented as parallel as possible to the longitudinal axis of the ship.

7.3.2 Shore/Vessel Access

The Terminal x Ship access is carried out through the ship's board and/or combination of stairs. Crew members who, when disembarking, use the facilities of the Terminal, should not circulate through the industrial area, limiting themselves to using the lanes intended for pedestrian circulation, which will take them to the Main Gate.

7.4 – BEFORE LOADING TRANSFER

7.4.1 - Electrical Insulation

Electrical insulation between the ship and the Terminal is done through an insulation flange installed on the loading arms, in order to ensure the safety of the connection in compliance with the recommendations of ISGOTT.

7.4.2 - Loading Arm Connection

The Terminal Operator will direct the connection and disconnection tasks of the loading arms.

During berthing, the Terminal operator will remain in the position of the loading arm that will be used, in order to guide the pilot in the correct positioning of the ship.

The ship must connect reduction parts in order to arrange the diameter of the load outlets that allows the connection of the loading arms, so that the connection does not stay outside the drain tray or cause excessive efforts on the ship's manifold.

After connecting the loading arms, they are tested for their tightness, using the static pressure of the Terminal column for this purpose, or nitrogen, in cases of operation with LPG.

A board representative will monitor the entire operation, and must be near the loading outlet of the ship.

The connection is made by ground personnel, however, for this, the on board personnel must provide the necessary support.

7.4.3 Tank Measurements

They must be carried out at the time of initial release and all safety precautions must be followed correctly. Attention should be paid to precautions to prevent the risks of spark ignition of static electricity during measurements, sampling, connections and loading/unloading operations.

Equipment used for this purpose must be, in addition to being certified, explosion-proof and properly grounded before use (ISGOTT Procedures).

The measurements/inspections of the on board tanks are carried out by the ship's personnel, under the supervision of the Terminal Operator, observing all safety measures applicable to the case.

7.4.4 Ready to Operate

The start of the operation is subject to the holding of a preliminary conference (Safety Key Meeting) in which the LVSO (ISGOTT - Ship/Land Safety Checklist) and the Initial Chart will be agreed and signed. The start will only be authorized when all possible pending issues of the Safety Checklist – LVSO (ISGOTT) are resolved by the ship.

For the start of the transfer, the Ready to Operate must be signed by all parties (Ship/Terminal).

7.4.5 Other Considerations

- In case there are ship pending issues related to LVSO (ISGOTT - Ship/Land Security Checklist) and the Initial Chart, and that are not resolved by the crew in time, the ship will not be authorized by the Terminal to start the operation.

- During the entire period in which the ship is moored next to the TABR, it is forbidden to discharge dense smoke through the chimney and carry out ramonage or cleaning of boiler piping, of any kind. Care must

be taken to prevent sparks from escaping the chimney. Failure to comply with these regulations will result in one or more of the following sanctions:

- Immediate interruption of operations;
- A fine by the competent authorities;
- Compulsory unberthing of the ship;
- Communication of the infringement to shipowners;
- The fines, loss of time and all other related expenses will be fully debited to the ship;
- Miscellaneous expenses that may cause damage to Transpetro's interests.

- The prohibition regarding the permanence of small vessels on the side or in the vicinity of the ships, while berthed, must be carefully observed. Only service vessels, or those authorized by the Maritime/Port Authorities, or authorized by the Terminal, may be in the vicinity or alongside the ship, and provided that they meet the safety conditions. The violation of this standard will be immediately communicated to the competent Maritime/Port Authorities.

- All ships in operation on the TABR must keep their machines ready for departure full-time.

- It is forbidden to engage the propeller with the ship moored, unless previously agreed and the operation is monitored by the Pilot, and also by a representative of the Terminal.

7.5 – LOADING TRANSFER

7.5.1 Pressure and Flow Monitoring

The Terminal will maintain control of the internal pressure variables of its pipelines through a supervisory control system.

The monitoring of manifold pressures, flow rate, as well as total loading volume, must be recorded and measured by the on board and land representatives, in the hourly interval. Any significant difference should be investigated and the transfer operation stopped if necessary.

Any change in operating conditions must be communicated in advance and documented.

During operation, it is expressly forbidden to close valves that may cause back pressure in the system (Ship x Terminal).

7.5.2 Special LPG requirements

Refrigerated ships must have the pressure in the tanks compatible with the Terminal storage (80g/cm2), to avoid the increase in pressure in the Terminal tanks due to the expansion of the product.

7.5.3 Ballast Water

The loading/unloading of ballas water is allowed within the port.

The ballast and deballasting nets and tanks of the ships must be destined only for this purpose, being isolated from the other on board nets.

The act of deflating the ship during the operation assumes that the Commander is fully aware of the satisfactory and compatible quality of the water discharged into the sea. This water should be free of oils and/or oily residues, as well as pathogenic organisms that may alter the microbiological balance of the region, causing damage to marine fauna and flora, causing a negative impact on the local community and marine area of influence of the port, and should do so in accordance with the International Convention for the Control and Management of Ship Ballast Water and Sediments - BWM.

The Terminal may at any time, when the apparent conditions of the disaster suggest possible contamination of the waters, request a copy of the Ballast Water Report, in accordance with Normam-20, protecting its interests against possible questions.

7.5.4 SLOP Unloading

At the Barra do Riacho Waterway Terminal (TABR) there is no facility to receive oily waste (SLOP).

7.5.5 Washing of Tanks

It is not considered a common operation to wash the loading tank of the ship while moored at TABR, and it is not permitted under routine conditions. However, the COW operation may be allowed as long as authorized by the Transpetro schedule and authorized by the Terminal Supervision, after consulting the Management, and this must be carried out according to ISGOTT requirements.

7.5.6 Port Repairs

While the ship is at berth, repairs or maintenance work involving or likely to involve the risk of sparks or other means of ignition may not be carried out.

In extreme cases – where maintenance is imperative - all safety standards must be observed and met.

Any type of repair that implies any restriction of the ship during the stay must be previously authorized by the Terminal.

It should be noted that, in all cases, it is expressly forbidden to carry out any type of maintenance that results in restriction of the machine, which prevents or hinders the movement of the ship by its own means *(see item 7.4.5).*

7.5.7 Operational Safety Checklist – LVSO (ISGOTT)

During the entire period that the ship is moored, the Terminal shall carry out intermediate inspections of the ship as directed by ISGOTT.

7.5.8 Causes that may lead to the shutdown of operations

The interruption of operation must occur in any situation that may pose a danger, whether to people, to the ship, to the environment or to the facilities of the Terminal and/or to third parties.

The operation will be stopped immediately, in the event of non-compliance with any of the rules and standards concerning safety universally accepted and adopted in the maritime transport of oil, with the costs arising for the cause of non-compliance, with the issuance of the due protest.

Operations may be suspended during storms, thunderstorms and/or high winds. Pay attention to electrical discharges from clouds of intense convective formation, cumulus type (dark clouds "charged").

7.5.9 Actions that must be taken in the event of an emergency

In any emergency situation, the Terminal may interrupt operations, so that all resources can be focused on mitigating any claim.

7.6 LOADING MEASUREMENT AND DOCUMENTATION

7.6.1 Drainage of Arms

After the end of the operation, the Terminal must make sure about the authorization for the closing of the loading outlets - Ship x Terminal – (Manifold**).**

The Terminal will authorize the start of drainage of the loading arms used. The ship's representative will be responsible for arranging the drainage of the on board section and ready for disconnection.

7.6.2 Final Measurements

The final measurements of the on board tanks are carried out by the ship's personnel and monitored by the Terminal's representatives. They must be carried out at the time of initial release and all safety precautions must be followed correctly. Equipment used for this purpose must be, in addition to being certified, explosion-proof and properly grounded before use (ISGOTT Procedures).

The final release of the operation must occur after comparing the quantities handled (Ship x Terminal), as well as the entire complement of the stay documentation.

At the end, all documentation of the operation must be exchanged between the parties (Ship x Terminal), and duly signed, as well as the entire complement of the documentation of the stay.

7.7 UNMOORING AND DEPARTURE FROM PORT

7.7.1 Exit maneuvers of ships or other vessels to the TABR with a length greater than 130.00 meters will only be carried out during the day. There are no hazards in the access channel and in the area between the jetties and the terminal where the depths are above 10m.

Respecting the aforementioned departure condition, the Pilot normally starts the unberthing maneuver right after the end of the final release, that is, at the end of completing/signing the documents.

7.7.2 Safe conditions must be observed for the Pilot's disembarkation. The pilot usually disembarks at the same embarkation point.

7.8 MEETING THE ISPS CODE

The Barra do Riacho Waterway Terminal (TABR) is not ISPs certified for its unenforceability and, therefore, is prevented from issuing the Declaration of Security (DOS).

However, TABR has implemented business security measures applicable to ships and port facilities.

In case of need, these protection measures can be triggered by the Ship through the Port Facility Security Officer (PFSO), or through the VHF radio (channels 10/16).

For more details, the Port Facility Security Officer (PFSO) - trained in accordance with the requirements required by the IMO - can be contacted by phone below:

- Phone: +55 27 3194.4155

8

PORT OR ANCHORAGE ORGANIZATION

8.1 PORT CONTROL OR VTS

8.1.1 According to the guidelines contained in the Maritime Authority Standards for the Traffic and permanence of Vessels in Brazilian Jurisdictional Waters NORMAM-08/DPC, the entry and exit control of the Ports of Espírito Santo is exercised through the Center for Coordination and Control of Maritime Activities (CCCAM), whose radio code is PWG77 and operates in the Waterway Traffic Safety Department of the Port Authority of Espírito Santo (CPES), permanently guarding channel 16 in the VHF range, as well as telephone (27) 2124-6526/6523 and email cpes.merep@marinha.mil.br.

All vessels, foreign and national, during their movement and stay in the port areas of CPES jurisdiction, must maintain contact with CCCAM, through maritime agencies or their legal representatives, through the Paperless Port System (PSP), at cpes.merep@marinha.mil.br, on contact phones, on channel 16 in VHF, or in person.

All VHF radio communications within the coverage area shall be objective, concise and in accordance with IMO Standard Marine Communication Phrases (SMCP) standard radio communication procedures.

All Merchant Ships in the anchorage area, or in movement of entry and exit in the ports of Espírito Santo must remain with their AIS on.

8.2 MARITIME AUTHORITY

8.2.1 The Representative of the Maritime Authority to which the Terminal is subordinate is the Port Authority of the State of Espírito Santo (CPES).

8.2.2 The ship release process by CPES will comply with the regulatory requirements as determined in Normam 08, chapter 02.

8.2.3 The access channel and the inland waters of the Port of Barra do Riacho are delimited by the positions of geographical coordinates described in item 5.3.4 of this document.

8.2.4 The Maritime Authority, represented by the Port Authority of Espírito Santo (CPES) is responsible for contributing to the guidance, coordination and control of activities inherent to the Merchant Navy, related organizations and Sports and Recreation activities, in terms of refers to national defence, safeguarding human life at sea, navigation safety and prevention of water pollution, concerning vessels, platforms or their support facilities.

8.3 - PILOTAGE

8.3.1 The Pilotage service is mandatory in the Port of Barra do Riacho (See item 5.3.6).

8.3.2 It complies with the concepts and instructions defined in the Maritime Authority Standards (NORMAM) and Standards and Procedures of the Port Authority of Espírito Santo (NPCP-ES). The Pilotage service is mandatory from the entrance of the access channel, except those provided for in Normam-12, item 0404.

8.3.3 The Pilotage Organization that operates in the Port of Barra do Riacho is the Union of Pilots of the State of Espírito Santo (See item 5.3.6).

8.3.4 The pilot request must be made to the "Pilotage of Espírito Santo", through the ship's maritime agency or its representatives, in Vitória. Its headquarters is at Rua Abiail do Amaral Carneiro, 41, 9º andar, Enseada do Suá, Vitória - ES; telephone (27) 3200-3898; fax (27) 3325-4586; e-mail praticagem@praticagem.com.br. The Pilotage maintains permanent listening in VHF radio telephony, channels 16 and 74, in English and Portuguese.

8.4 – TUGBOATS AND OTHER MARITIME SERVICES

8.4.1 The TABR is attended by port tugboat companies duly registered in the Petrobras System. All port tugboats involved with maneuvers in the TABR are inspected at least every 6 months and/or at any time, when necessary.

Due to the high turnover of vessels over time, we request that, if necessary, they contact the Operational Control Center (CCO) of TABR, through VHF 10/16 communication and/or Terminal email, for the purpose of acquiring an updated tugboat list.

8.4.2 Other maritime services relevant to the port, such as divers, ship repairs, support boats, etc., are not available on TABR.

8.5 – OTHER OIL/GAS TERMINALS

8.5.1 There are no other oil and derivatives terminals in the anchorage area or in the vicinity of the berth.

8.6 OTHER MAIN USERS

In Barra do Riacho, in addition to the Barra do Riacho Waterway Terminal (TABR), is located the private terminal of PORTOCEL – Specialized Terminal of Barra do Riacho S.A.

9

EMERGENCY PLANNING AND RESPONSE

9.1 – EMERGENCY CONTACTS

The main contacts of the Terminal and Port Authorities to be activated by the ship in case of need are as follows:

ORGANIZATION	OPENING HOURS	IDENTIFICATION ACRONYM	TELEPHONE	VHF/UHF	
			(+55 27)	CALL	CONVERSATION
Terminal Operations Control Center (CCO)	24 hours	TABR	9.9507.6670	16	10
Capitania dos Portos	24 hours	CPES	2124.6500	16	11
Military Police (CIODES)	24 hours	PM	190	-	-
Federal Highway Police	24 hours	PRF	191	-	-
Federal Police	24 hours	PF	3041.8033	-	-
SAMU	24 hours	SAMU	192	-	-
Fire Department (CIODES)	24 hours	PM	193	-	-
Civil Police of Aracruz	24 hours	PC	3256. 8576	-	-
ANVISA	24 hours	ANVISA	3235-9404	-	-

9.2 ENVIRONMENTALLY SENSITIVE AREAS

In the PRE – Emergency Response Plan, the areas most sensitive to an environmental impact are listed by leaves, which contains maps of environmental sensitivity, showing, according to the selected area, the points that are subject to the greatest impact when this type of event occurs on the coast of Espírito Santo.

9.3 OVERVIEW OF THE EMERGENCY RESPONSE ORGANIZATION

The responsibility regarding the various contingencies listed in the PRE - Emergency Response Plan are described in the table below:

INCIDENTS WITHIN THE PORT/TERMINAL AREA				
TYPE OF INCIDENT (E.G.)	RESPONSIBLE ORGANIZATION	OTHER ORGANISATIONS INVOLVED		
Collision in the Channel	Port Authority of Espírito Santo	Fire Department	Transpetro	-
Vessel Stranded	Port Authority of Espírito Santo	Fire Department	Transpetro	-
Collision in the Berth	Port Authority of Espírito Santo	Fire Department	Transpetro	-

Vessel Sinking	Port Authority of Espírito Santo	Fire Department	Transpetro	-
fire on the ship	Ship	Transpetro	Fire Department	Port Authority of Espírito Santo
Berth Fire	Terminal	Fire Department	Transpetro	Port Authority of Espírito Santo
Pollution	Terminal and Ship	Port Authority of Espírito Santo	IEMA	PROAMMAR

9.4 EMERGENCY PLANS

9.4.1 The PRE – Emergency Response Plan – is the TP/DOP/DTNNESE/UO-BAES/OPBRTABR Terminal plan to combat emergencies in all its facilities. It is available in the operational areas, in the operating room and through computerized systems. The person responsible for its update is the local HSE (Safety, Environment and Health).

9.4.2 - The ship's emergency and firefighting equipment shall be kept operational and available throughout the period that the ship remains moored.

Fire hoses should be extended, one forward and one aft of the ship, unless fire-fighting monitors can replace this requirement.

The Barra do Riacho Waterway Terminal – TABR – has CRE (Emergency Response Center) that is equipped with various equipment and facilities for use in accidental pollution.

A convenient portion of absorbent material must be kept ready for use, to be used in the event of an oil spill.

Additional precautions should be taken to avoid pollution of sea waters.

Periodically, the Terminal carries out emergency drills and training aimed at training personnel to act quickly and promptly in the fight against emergencies in case of need, according to the PRE – Emergency Response Plan. The available resources are listed in the PRE.

9.4.3 - The Terminal does not have its own medical service.

9.5 PUBLIC EMERGENCY RESPONSE RESOURCES

9.5.1 PORT ADMINISTRATOR

CODESA – Companhia Docas do Espírito Santo
Rua Izidoro Benezath, 48, Enseada do Suá, Vitória - ES. Zip Code: 29.050-300.
Phone: +55 27 3132-7303.

9.5.2 MARITIME AUTHORITY

CPES – Port Authority of Espírito Santo – Brazilian Navy.
Rua Belmiro Rodrigues da Silva, 145, Enseada do Suá, Vitória – ES. Zip Code: 29.050-435.
Phone: +55 27 2124-6555.

9.5.3 LOCAL EMERGENCY SERVICES

For other emergencies, public organizations offer the resources for which they are intended.

9.5.4 STATE AND NATIONAL COMBAT ORGANIZATIONS.

For other emergencies, public organizations offer the resources for which they are intended.

9.5.5 MUTUAL SUPPORT PLANS

Mutual Support Plans in TABR, the Local Area Plan may be triggered, a group of companies gathered for contingencies and emergencies, which have resources that can be used to mitigate sea pollution events.

9.6 COMBATING SPILLAGE OF OIL AND CHEMICALS

9.6.1 TERMINAL COMBAT CAPACITY

The resources available to combat oil spill situations are listed in the PEI (Individual Emergency Plan), which is available in the operating room and through computerized systems.

9.6.2 COMBAT CAPACITY OF THE ENVIRONMENT AGENCY

The Environment Agency of Espírito Santo (IEMA) does not have resources to combat oil spills.

9.6.3 - RESOURCES AVAILABLE FROM MUTUAL SUPPORT PLANS OF OTHER TERMINALS

The resources available at other TRANSPETRO terminals to respond to pollution emergencies occurring in the vicinity of the Terminal are listed in a computerized system.

9.6.4 COMBATING POLLUTION

The sub-items below describe the resources available to combat pollution emergencies in the Terminal region and adjacent areas.

9.6.5 COMBATING MEDIUM-SIZED SPILLAGE

In these events, national resources from Transpetro/Petrobras are requested. These resources, their readiness and form of activation in a computerized system, in the pre and in the PEI.

9.6.6 COMBATING A MAJOR ACCIDENT

In these events, regional and national resources from Transpetro/Petrobras are requested. These resources, their readiness and form of activation are described in the pre and PEI.

9.6.7 COMBATING OTHER MAJOR EMERGENCIES

The pre and PEI of the TABR list the actions and those responsible for each type of event in case of fight against large accidents (catastrophic proportion) that may occur in the vicinity of the facilities or vessels and may involve third parties.

For events that are not provided for in said document, TRANSPETRO/PETROBRAS will make available all national or international resources that are within its reach.

10

CONTACTS

The following tables indicate the organization, position, telephones, electronic address, channel and radio frequencies of the main contacts of the Terminal and the companies that operate in it.

				Highlight	Conversation
Co-ordination	Operations Manager	(55 27) 9. 9949.2611	fabio_campos@transpetro.com.br	16	10
Operational Control Center - CCO	TABR Operator	(55 27) 9. 9507.6670	operatorsTABR@transpetro.com.br	16	10

10.2 - Port Services

Location	Contact	Phone	E-mail	VHF/UHF Channels	
				Highlight	Conversation
Terminal	Operations Manager	(55 27) 9. 9949.2611	fabio_campos@transpetro.com.br	16	10
Port Commander	Port Authority of ES	(55 27) 9. 2124.6500	-	16	11

10.3 - Navigation Agents and Suppliers

Company	Business	Phone	E-mail	VHF/UHF Channels	
				Highlight	Conversation
GAC Maritime Agency of Brazil	Maritime Agent	+55 27 3024-3826 // +55 27 99255 9802// +55 27 99286.7542	shipping.vitoria@gac.com	16	To be agreed
Not available	Small Naval Repairs	-	-	-	-
Not available	Naval Repairs of Greater Porto	-	-	-	-

Not available	Garbage Disposal	-	-	-	-
Not available	Divers	-	-	-	-
Not available	Moorers	-	-	-	-

10.4 - Local Authorities, State and National Agencies

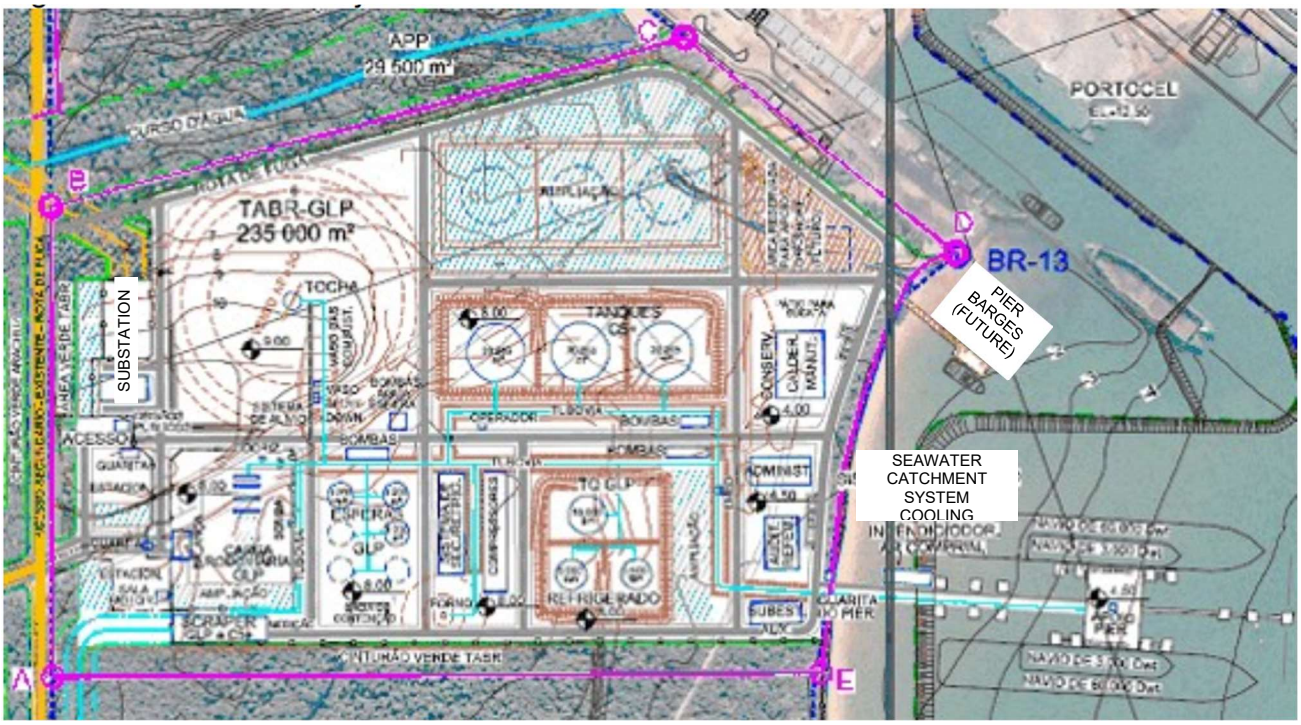
The table in section 9.1 contains the list of Authorities and their means of contact.

10.5 - Emergency Response Organizations

In the table of section 9.1 against the emergency response organizations available in the Terminal and the respective means of contact.

APPENDIX A

TERMINAL LOCATION



APPENDIX B

INFORMATION PRIOR TO SHIP 'S ARRIVAL TO TERMINAL

TRANSPETRO/DDT/ TP/DOP/DTNNESE/UO-BAES/OPBRTABR BARRA DO RIACHO WATER TRANSPORTATION TERMINAL - TABR	
Request for information about the ship	
Ship's name:	Estimated time of arrival:
Flag:	Last Port:
Commander's name :	Next Port:
Outfitter:	Agents:
Does the Vessel have an inert gas system?	Oxygen content in loading tanks:
Does the ship intend to wash with crude oil?	Does the ship plan to do tank washing tied up?
Overall length (LOA):	Draft on arrival:
Length between perpendiculars:	Maximum draft during transfer:
Mouth:	Draft at exit:

Propulsion	Transverse propulsion:	Required tugboats
Number of engines: Number of propellers:	Bow (No and power): Bow (No and power):	Minimum:

Number and size of flanges	Distances
• Position: • Ballast: • Bunker:	• Bow to manifold: • Sided to the manifold: • Height from manifold to main deck:

Loading schedule		
Loading Appointment Type and quantity (m^3): Type and quantity (m^3):	Ballast unloading to sea Quantity (m^3): Estimated time:	Slop / ballast unloading to land: Quantity (m3): Not applicable Estimated time: Not applicable

Unloading schedule		
Unloading Appointment Type and quantity (m^3): Type and quantity (m^3):	Ballast unloading to sea Quantity (m^3): Estimated time:	Slop / ballast unloading to land: Quantity (m3): Not applicable Estimated time: Not applicable

Requested supply	
Type and quantity (HFO): Not applicable	Type and quantity (MDO): Not applicable
Additional information (if any):	

APPENDIX C

PETROBRAS TRANSPORTE S.A. TRANSPETRO	**LISTA DE VERIFICAÇÃO DE SEGURANÇA NAVIO/TERMINAL** *SHIP/SHORE SAFETY CHECK LIST*	**SGF-PET-FM-010**
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INSTRUÇÕES DE PREENCHIMENTO DO SSSCL
INSTRUCTIONS FOR COMPLETING THE SHIP/SHORE SAFETY CHECKLIST

Antes de preencher o SSSCL, os representantes do navio e do terminal devem ler e compreender as instruções a seguir para garantir uma conclusão satisfatória.

Uma aplicação eficaz do SSSCL fornecerá uma base para operações seguras enquanto o navio permanecer no terminal. É importante que cada parte aplicável seja preenchida como requerida para garantir esta operação segura.

ANTES DA CHEGADA
O navio deve preencher a parte 1A (e 1B se tiver SGI instalado) e, em seguida, encaminhar uma cópia ao terminal para análise antes da chegada. O terminal deve preencher a parte 2 e, em seguida, encaminhar da mesma forma, uma cópia ao navio para análise antes da chegada.

Após a conclusão dos procedimentos de antes da chegada, se não for possível enviar uma cópia dos procedimentos concluídos ao navio e/ou terminal, então uma mensagem deve ser enviada confirmando a hora e a data do cumprimento desses procedimentos. Se houver qualquer problema pendente não marcado como "Sim" na caixa de *status*, isso deve ser explicado nas mensagens trocadas antes da chegada.

VERIFICAÇÕES APÓS A ATRACAÇÃO
O navio deve preencher a parte 3 e entregar uma cópia ao Representante do Terminal assim que possível, mas o mais tardar na Reunião de Liberação Inicial.

O terminal deve preencher a parte 4 e entregar uma cópia ao navio o mais rápido possível, mas o mais tardar na Reunião de Liberação Inicial.

VERIFICAÇÕES ANTES DA OPERAÇÃO - A REUNIÃO DE LIBERAÇÃO INICIAL
O navio e o terminal devem cumprir a parte 5A durante a Reunião de Liberação Inicial. Cada parte deve reter uma cópia. Esse requisito é obrigatório a TODOS os petroleiros e gaseiros.

Em operações com navios gaseiros, o navio e o terminal devem preencher a parte 5C adicional durante a Reunião de Liberação Inicial, e cada parte deve reter uma cópia (para mais informações, o ICS' *Tanker Safety Guide: Liquefied Gas* deve ser consultado).

O navio e o terminal devem discutir e concordar com o conteúdo da parte 6 (Acordos), o qual resume os fatores operacionais detalhados acordados na Reunião de Liberação Inicial. Uma cópia deve ser postada no C.C.C., em local visível aos componentes da operação.

O navio também deve completar as verificações adicionais antes da operação, aplicável a petroleiros e gaseiros, na parte 7A, imediatamente antes de iniciar as operações de transferência.

Se operação COW estiver planejada, deve ser cumprido também a parte 7B.

Se o navio planeja lavar e desgaseificar tanques durante a operação, deve discutir essa intenção durante a Reunião de Liberação Inicial e, uma vez que o acordo for alcançado, fornecer uma cópia da parte 7C ao terminal antes de iniciar as operações.

A DECLARAÇÃO
O cumprimento dos *checklists* pelo navio, pelo terminal, ou por ambos, deve ser comprovado/rubricado no formulário da declaração.

Após o cumprimentos de todos os *checklists*, os representantes

Before completing the SSSCL, tanker and terminal representatives should read and understand the following instructions to ensure satisfactory completion.

An effective application of the SSSCL will provide a basis for safe operations while the tanker is at the terminal. It is important that each applicable part is completed as required to ensure this.

PRE-ARRIVAL
The tanker should complete part 1A (and 1B if using an IG system) and then forward a copy to the terminal for review before arrival. The terminal should complete part 2 and then similarly forward a copy to the tanker for review before arrival.

On completion of the pre-arrival parts, if it is not possible to send a copy of the completed part to the tanker and/or terminal, then a message should be sent confirming the time and date of completion to the relevant party before arrival. If there are any outstanding issues not marked "Yes" in the status box, this should be explained in this communication.

CHECKS AFTER MOORING
The tanker should complete part 3 and give a copy to the Terminal Representative as soon as possible, but no later than at the pre-transfer conference.

The terminal should complete part 4 and give a copy to the tanker as soon as possible, but no later than at the pre-transfer conference.

CHECKS BEFORE TRANSFER – THE PRE-TRANSFER CONFERENCE
Tanker and terminal personnel should both complete part 5A as part of the pre-transfer conference. Each party should retain a copy. This requires completion by ALL tankers.

If bulk gases are to be transferred, the tanker and terminal personnel should also complete the additional part 5C as part of the pre-transfer conference, and each party should retain a copy (for further information, see ICS' Tanker Safety Guide: Liquefied Gas).

The tanker and terminal personnel should discuss and agree the content of part 6 (Agreements), which summarises the detailed operational factors agreed at the pre-transfer conference. A reference copy for personell on the tanker and in the terminal should be displayed at the relevant control stations.

Tanker personnel should also complete the additional pre-transfer checks for all tankers in part 7A immediately before beginning transfer operations.

If COW is planned, they should also complete part 7B.

All tankers planning on tank cleaning and/or gas freeing alongside should discuss the intention during the pre-transfer conference and, once agreement is reached, provide a copy of part 7C to the terminal before beginning operations.

THE DECLARATION
When completed, each separate checklist part should be checked off and initialled by tanker personnel, terminal personnel, or both, in the relevant boxes on the declaration form.

When all parts are addressed, tanker and terminal representatives should agree the intervals at which they undertake repetitive checks of items applicable to their responsibility from the SSSCL, and that could impact on the safety of the operation if not monitored. This interval should be noted in the declaration, after which the two representatives may agree to start operations and

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do navio e do terminal devem acordar os intervalos para realização das verificações repetitivas (*re-checks*) dos itens aplicáveis do SSSCL ao navio e ao terminal, e que podem impactar a segurança da operação se não forem monitorados. Este intervalo acordado é parte da declaração.

O navio e o terminal devem reter uma cópia de todos os *checklists* da lista de verificação e da declaração.

RESUMO DAS VERIFICAÇÕES REPETITIVAS DURANTE E APÓS A OPERAÇÃO DE TRANSFERÊNCIA
As verificações repetitivas a serem realizadas em intervalos acordados na Reunião de Liberação Inicial pelo navio e pelo terminal existem para:

- Atuar como um auxiliar de memória para o navio e terminal, monitorarando itens operacionais importantes durante as operações.
- Fornecer uma base para verificações durante os serviços de quarto e passagens de serviço.
- Permitir a tomada de decisões caso as condições mudem durante o curso das operações.

Quando um item analisado durante o *re-check* não estiver mais em conformidade com as condições originais acordadas durante a Reunião de Liberação Inicial, o navio ou representante do terminal deve tomar medidas imediatas para sanar o problema ou paralisar as operações até que as condições acordadas na Reunião de Liberação Inicial sejam restabelecidas.

Se a paralisação for necessária, o navio e representantes do terminal devem se reunir para acordar as ações para resolver o problema e retomar a operação de forma aceitável.

O navio deve completar as verificações repetitivas na parte 8 nos intervalos acordados. O registro deve estar disponível para análise do terminal.

O terminal deve completar as verificações repetitivas na parte 9 nos intervalos acordados. O registro deve estar disponível para análise do navio.

O navio e o terminal devem fornecer uma cópia final das partes 8 e 9 ao outro, quando as operações forem concluídas. Isso fornecerá uma base para a análise da operação e verificação dos *re-checks* realizados.

add their details.

The tanker and terminal should retain a copy of all checklist parts and the declarations for their files in accordance with the operator's document retention period.

SUMMARY OF REPETITIVE CHECKS DURING AND AFTER TRANSFER
Repetitive checks to be undertaken at intervals agreed in the pre-transfer conference by the tanker and terminal representatives are provided to:

- *Act as an aide memoire for tanker and terminal personnel to monitor key operational items during the period of operations.*
- *Provide a basis for status checks at watch or shift handovers.*
- *Enable decision making in the event that conditions change during the course of operations.*

Where are item reviewed during the repetitive checks is no longer in compliance with the original status agreed during the pre-transfer conference, the tanker or terminal representative should take immediate steps to remedy the issue or cease operations until the status agreed at the pre-transfer conference can be reinstated.

If cessation is necessary, the tanker and terminal representatives should meet to agree the course of action taken to resolve the issue and agree that resumption is acceptable.

The tanker personnel should complete the repetitive checks in part 8 at the agreed intervals. The record should be available for terminal personnel to review.

The terminal personnel should complete the repetitive checks noted in part 9 at the agreed intervals. The record should be available for tanker personnel to review.

The tanker and terminal personnel should provide a final copy of thweir parts 8 and 9 to the other when operations are completed. This will provide a basis for review of the operation and verification of checks undertaken.

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VERIFICAÇÕES ANTES DA CHEGADA
INSTRUCTIONS FOR COMPLETING THE SHIP/SHORE SAFETY CHECKLIST

Data e Hora: _____
Date and Time

Porto e Berço: _____
Port and Berth

Nome do Navio: _____
Ship's Name

Terminal: _____
Terminal

Produto a ser transferido: _____
Product to be transferred

PARTE 1A – NAVIO – VERIFICAÇÕES ANTES DA CHEGADA
PART 1A – TANKER – CHECKS PRE-ARRIVAL

Item *Item*	**Verificação** *Check*	**Condição** *Status*	**Observações** *Remarks*
1	**As informações de antes da chegada são trocadas.** *Pre-arrival information is exchanged (6.5, 21.2).*	☐ **Sim**/Yes	
2	**Conexão internacional está disponível.** *International shore fire connection is available (5.5, 19.4, 3.1).*	☐ **Sim**/Yes	
3	**Mangotes de transferência são de construção adequada.** *Transfer hoses are of suitable construction (18.2).*	☐ **Sim**/Yes	
4	***Port Information* do terminal analisado.** *Terminal information booklet reviewed (15.2.2).*	☐ **Sim**/Yes	
5	**Informações de antes da atracação são trocadas.** *Pre-berthing information is exchanged (21.3, 22.3).*	☐ **Sim**/Yes	
6	**Válvulas de vácuo/pressão e/ou suspiros de alta velocidade estão operacionais.** *Pressure/vacuum valves and/or high velocity vents are operational (11.1.8).*	☐ **Sim**/Yes	
7	**Analisadores de oxigênio fixos e portáteis estão operacionais.** *Fixed and portable oxygen analysers are operational (2.4).*	☐ **Sim**/Yes	

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PARTE 1B – NAVIO – VERIFICAÇÕES ANTES DA CHEGADA SE EQUIPADO COM SGI
PART 1B – TANKER – CHECKS PRE-ARRIVAL IF USING NA INERT GAS SYSTEM

Item *Item*	**Verificação** *Check*	**Condição** *Status*	**Observações** *Remarks*
8	**Os registradores de pressão e oxigênio do sistema de gás inerte estão operacionais.** *Inert gas system pressure and oxygen recorders are operational (11.1.5.2, 11.1.11).*	☐ **Sim/**Yes	
9	**O sistema de gás inerte e equipamentos associados estão operacionais.** *Inert gas system and associated equipment are operational (11.1.5.2, 11.1.11).*	☐ **Sim/**Yes	
10	**O teor de oxigênio dos tanques de carga está abaixo de 8%.** *Cargo tank atmospheres' oxygen content is less than 8% (11.1.3).*	☐ **Sim/**Yes	
11	**Os tanques de carga estão com pressão positiva.** *Cargo tank atmospheres are at positive pressure (11.1.3).*	☐ **Sim/**Yes	

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PARTE 2 – TERMINAL – VERIFICAÇÕES ANTES DA CHEGADA *PART 2 – TERMINAL – CHECKS PRE-ARRIVAL*			
Item *Item*	**Verificação** *Check*	**Condição** *Status*	**Observações** *Remarks*
12	**As informações de antes da chegada são trocadas.** *Pre-arrival information is exchanged (6.5, 21.2).*	☐ **Sim**/Yes	
13	**Conexão internacional está disponível.** *International shore fire connection is available (5.5, 19.4, 3.1, 19.4, 3.5).*	☐ **Sim**/Yes	
14	**O equipamento de transferência é de construção adequada.** *Transfer equipment is of suitable construction (18.1, 18.2).*	☐ **Sim**/Yes	
15	**O *Port Information* do terminal foi enviado ao navio.** *Terminal information booklet transmitted to tanker (15.2.2).*	☐ **Sim**/Yes	
16	**Informações de antes da atracação são trocadas.** *Pre-berthing information is exchanged (21.3, 22.3).*	☐ **Sim**/Yes	

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VERIFICAÇÕES APÓS ATRACAÇÃO
CHECKS AFTER MOORING

PARTE 3 – NAVIO – VERIFICAÇÕES APÓS A ATRACAÇÃO
PART 3 – TANKER – CHECKS AFTER MOORING

Item *Item*	Verificação *Check*	Condição *Status*	Observações *Remarks*
17	**As defensas são eficazes.** *Fendering is effective (22.4.1).*	☐ **Sim**/Yes	
18	**O navio está amarrado com segurança.** *Mooring arrangement is effective (22.2, 22.4.3).*	☐ **Sim**/Yes	
19	**O acesso entre o navio e o terminal é seguro.** *Access to and from the tanker is safe (16.4).*	☐ **Sim**/Yes	
20	**Embornais e bandejas de contenção estão efetivamente bujonados.** *Scuppers and save-alls are plugged (23.7.45, 23.7.5).*	☐ **Sim**/Yes	
21	**As válvulas de costado e de fundo estão fechadas e lacradas.** *Cargo system sea connections and overboard discharges are secured (23.7.3).*	☐ **Sim**/Yes	
22	**Os equipamentos de VHF e UHF estão no modo de baixa potência.** *Very high frequency and ultra high frequency transceivers are set to low power mode (4.11.6, 4.13.2.2).*	☐ **Sim**/Yes	
23	**Todas as portas externas e demais portas e vigias nas acomodações, paióis e espaços de máquinas estão fechadas.** *External openings in superstructures are controlled (23.1).*	☐ **Sim**/Yes	
24	**A ventilação da casa de bombas é eficaz.** *Pumproom ventilation is effective (10.12.2).*	☐ **Sim**/Yes	
25	**As antenas dos transmissores de alta e média frequências estão aterradas.** *Medium frequency/high frequency radio antennae are isolated (4.11.4, 4.13.2.1).*	☐ **Sim**/Yes	
26	**Uma pressão positiva é mantida dentro das acomodações.** *Accomodation spaces are at positive pressure (23.2).*	☐ **Sim**/Yes	
27	**Os planos de emergência contra incêndio estão prontamente disponíveis.** *Fire control plans are readily available (9.11.2.5).*	☐ **Sim**/Yes	

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PARTE 4 – TERMINAL – VERIFICAÇÕES APÓS A ATRACAÇÃO *PART 4 – TERMINAL – CHECKS AFTER MOORING*			
Item *Item*	**Verificação** *Check*	**Condição** *Status*	**Observações** *Remarks*
28	**As defensas são eficazes.** *Fendering is effective (22.4.1).*	☐ **Sim**/Yes	
29	**O navio está amarrado de acordo com o plano de amarração do terminal.** *Tanker is moored according to the terminal mooring plan (22.2, 22.4.3).*	☐ **Sim**/Yes	
30	**O acesso entre o navio e o terminal é seguro.** *Access to and from the terminal is safe (16.4).*	☐ **Sim**/Yes	
31	**Áreas de contenção de derramamentos e *sump tanks* estão fechados.** *Spill containment and sumps are secure (18.4.2, 18.4.3, 23.7.4, 23.7.5).*	☐ **Sim**/Yes	

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VERIFICAÇÕES ANTES DA OPERAÇÃO DE TRANSFERÊNCIA
CHECKS PRE-TRANSFER

Data e Hora: _____
Date and Time

Porto e Berço: _____
Port and Berth

Nome do Navio: _____
Ship's Name

Terminal: _____
Terminal

Produto a ser transferido: _____
Product to be transferred

PARTE 5A – NAVIO E TERMINAL – REUNIÃO DE LIBERAÇÃO INICIAL
PART 5A – TANKER AND TERMINAL – PRE-TRANSFER CONFERENCE

Item *Item*	**Verificação** *Check*	**Condição Navio** *Tanker Status*	**Condição Terminal** *Terminal Status*	**Observações** *Remarks*
32	**O navio está pronto para se movimentar no período de notificação acordado.** *Tanker is ready to move at agreed notice period (9.11, 21.7.1.1, 22.5.4).*	☐ **Sim**/Yes	☐ **Sim**/Yes	
33	**Comunicação eficaz estabelecida entre o navio e o terminal.** *Effective tanker and terminal communications are established (21.1.1, 21.1.2).*	☐ **Sim**/Yes	☐ **Sim**/Yes	
34	**Equipamento de transferência em condição segura (isolado, drenado e despressurizado.** *Transfer equipment is in safe condition (isolated, drained and de-pressurised) (18.4.1).*	☐ **Sim**/Yes	☐ **Sim**/Yes	
35	**A supervisão, acompanhamento e vigilância da operação é adequado.** *Operation supervision and watchkeeping is adequate (7.9, 23.11).*	☐ **Sim**/Yes	☐ **Sim**/Yes	
36	**Existe pessoal suficiente para enfrentar uma emergência.** *There are sufficient personnel to deal with an emergency (9.11.2.2, 23.11).*	☐ **Sim**/Yes	☐ **Sim**/Yes	
37	**Locais para fumar e as restrições ao fumo estão estabelecidos.** *Smoking restrictions and designated smoking areas are established (4.10, 23.10).*	☐ **Sim**/Yes	☐ **Sim**/Yes	
38	**As exigências quanto a luzes desprotegidas estão estabelecidas.** *Naked light restrictions are established (4.10.1).*	☐ **Sim**/Yes	☐ **Sim**/Yes	
39	**Acordado o controle de dispositivos elétricos e eletrônicos.** *Control of electrical and electronic devices is agreed (4.11, 4.12).*	☐ **Sim**/Yes	☐ **Sim**/Yes	

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PARTE 5A – NAVIO E TERMINAL – REUNIÃO DE LIBERAÇÃO INICIAL *PART 5A – TANKER AND TERMINAL – PRE-TRANSFER CONFERENCE*				
Item *Item*	**Verificação** *Check*	**Condição Navio** *Tanker Status*	**Condição Terminal** *Terminal Status*	**Observações** *Remarks*
40	**Meios de saída de emergência estão estabelecidos no navio e no terminal.** *Means of emergency escape from both tanker and terminal are established (20.5).*	☐ **Sim**/Yes	☐ **Sim**/Yes	
41	**Equipamento de combate a incêndio pronto para uso.** *Firefighting equipment is ready for use (5, 19.4, 23.8).*	☐ **Sim**/Yes	☐ **Sim**/Yes	
42	**Material para combate a derrames está disponível.** *Oil spill clean-up material is available (20.4).*	☐ **Sim**/Yes	☐ **Sim**/Yes	
43	**As conexões no manifold estão apropriadas.** *Manifolds are properly connected (23.6.1).*	☐ **Sim**/Yes	☐ **Sim**/Yes	
44	**Os protocolos para medição e amostragem estão acordados.** *Sampling and gauging protocols are agreed (23.5.3.2, 23.7.7.5).*	☐ **Sim**/Yes	☐ **Sim**/Yes	
45	**Os procedimentos para as operações de carga, abastecimento e lastro estão acordados.** *Procedures for cargo, bunkers and ballast handling operations are agreed (21.4, 21.5, 21.6).*	☐ **Sim**/Yes	☐ **Sim**/Yes	
46	**O controle da supervisão da operação de transferência de carga está acordado.** *Cargo transfer management controls are agreed (12.1).*	☐ **Sim**/Yes	☐ **Sim**/Yes	
47	**Os requisites para limpeza de tanques, incluindo operação COW estão acordados.** *Cargo tank cleaning requirements, including crude oil washing are agreed (12.3, 12.5, 21.4.1).*	☐ **Sim**/Yes	☐ **Sim**/Yes	Ver também partes 7B/TC, se aplicável *(See also parts 7B/7C as aplicable)*
48	**Arranjos para desgaseificação de tanques estão acordados.** *Cargo tank gas freeing arrangements agreed (12.4).*	☐ **Sim**/Yes	☐ **Sim**/Yes	Ver também parte 7C *(See also part 7C)*
49	**Requisitos de movimentação de resíduos de carga e combustível acordados.** *Cargo and bunker slop handling requirements agreed (12.1, 21.2, 21.4).*	☐ **Sim**/Yes	☐ **Sim**/Yes	Ver também parte 7C *(See also part 7C)*
50	**Rotina para verificações regulares da quantidade de carga movimentada é acordada.** *Routine for regular checks on cargo transferred are agreed (23.7.2).*	☐ **Sim**/Yes	☐ **Sim**/Yes	
51	**Sinais de emergência e procedimentos de parada de emergência são acordados.** *Emergency signals and shutdown procedures are agreed (12.1.6.3, 18.5, 21.1.2).*	☐ **Sim**/Yes	☐ **Sim**/Yes	
52	**FISPQs estão disponíveis.** *Safety data sheets are available (1.4.4, 20.1, 21.4).*	☐ **Sim**/Yes	☐ **Sim**/Yes	

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PETROBRAS TRANSPORTE S.A. TRANSPETRO	**LISTA DE VERIFICAÇÃO DE SEGURANÇA NAVIO/TERMINAL** *SHIP/SHORE SAFETY CHECK LIST*	**SGF-PET-FM-010**
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PARTE 5A – NAVIO E TERMINAL – REUNIÃO DE LIBERAÇÃO INICIAL *PART 5A – TANKER AND TERMINAL – PRE-TRANSFER CONFERENCE*				
Item *Item*	**Verificação** *Check*	**Condição Navio** *Tanker Status*	**Condição Terminal** *Terminal Status*	**Observações** *Remarks*
53	**Os riscos associados aos produtos sendo manuseados são discutidos.** *Hazardous properties of the products to be transferred are discusses (1.2, 1.4).*	☐ **Sim**/Yes	☐ **Sim**/Yes	
54	**O isolamento elétrico na interface navio/terminal é eficaz.** *Electrical insulation of the tanker/terminal interface is effective (12.9.5, 17.4, 18.2.14).*	☐ **Sim**/Yes	☐ **Sim**/Yes	
55	**Sistema de alívio dos tanques e procedimentos para operação fechada são acordados.** *Tank venting system and closed operation procedures are agreed (11.3.3.1, 21.4, 21.5, 23.3.3).*	☐ **Sim**/Yes	☐ **Sim**/Yes	
56	**Os parâmetros operacionais da rede de retorno de vapores são acordados.** *Vapour return line operational parameters are agreed (11.5, 18.3, 23.7.7).*	☐ **Sim**/Yes	☐ **Sim**/Yes	
57	**Medidas para evitar retorno de produto são acordadas.** *Measures to avoid back-filling are agreed (12.1.13.7).*	☐ **Sim**/Yes	☐ **Sim**/Yes	
58	**A condição das conexões de carga e combustível que não estão em uso é satisfatória.** *Status of unused cargo and bunker connections is satisfactory (23.7.1, 23.7.6).*	☐ **Sim**/Yes	☐ **Sim**/Yes	
59	**Os transceptores portáteis de VHF e UHF são intrinsecamente seguros.** *Portable very high frequency and ultra high frequency radios are intrinsically safe (4.12.4, 21.1.1).*	☐ **Sim**/Yes	☐ **Sim**/Yes	
60	**Procedimentos para recebimento de nitrogênio do terminal nos tanques de carga são acordados.** *Procedures for receiving nitrogen from terminal to cargo tank are agreed (12.1.14.8).*	☐ **Sim**/Yes	☐ **Sim**/Yes	

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PETROBRAS TRANSPORTE S.A. TRANSPETRO	**LISTA DE VERIFICAÇÃO DE SEGURANÇA NAVIO/TERMINAL** *SHIP/SHORE SAFETY CHECK LIST*	**SGF-PET-FM-010**
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PARTE 6 – NAVIO E TERMINAL – ACORDADO ANTES DO INÍCIO DA OPERAÇÃO
PART 6 – TANKER AND TERMINAL – AGREEMENTS PRE-TRANSFER

Parte 5 Item *Part 5 Item*	**Acordado** *Agreement*	**Detalhes** *Details*	**Rubrica Navio** *Tanker initials*	**Rubrica Terminal** *Terminal initials*
32	**Prontificação do navio para manobra.** *Tanker manoeuvring readiness.*	**Período de notificação prévia (máximo) para total prontidão para manobra:** *Notice period (maximum) for full readiness to manoeuvre:* **Período fora de operação (se permitido):** *Period of disablement (if permitted):*		
33	**Protocolos de proteção.** *Security protocols.*	**Nível de proteção:** *Security level:* **Requisitos do porto:** *Local requirements:*		
33	**Comunicação eficaz navio/terminal** *Effective tanker/terminal communications*	**Sistema principal:** *Primary system:* **Sistema de reserva:** *Backup system:*		
35	**Supervisão da operação e sistema de vigilância.** *Operational supervision and watckeeping*	**Navio:** *Tanker:* **Terminal:** *Terminal:*		
37 **38**	**Salão de fumantes e restrições a luzes desprotegidas.** *Dedicated smoking areas and naked lights restrictions.*	**Navio:** *Tanker:* **Terminal:** *Terminal:*		
45	**Critérios máximos de vento corrente e condições de mar/*swell* ou outros fatores ambientais.** *Maximum wind, current and sea/swell criteria or other environmental factors.*	**Paralização da operação:** *Stop cargo transfer:* **Desconexão:** *Disconnect:* **Desatracação:** *Unberth:*		

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PETROBRAS TRANSPORTE S.A. TRANSPETRO	LISTA DE VERIFICAÇÃO DE SEGURANÇA NAVIO/TERMINAL *SHIP/SHORE SAFETY CHECK LIST*	SGF-PET-FM-010
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PARTE 6 – NAVIO E TERMINAL – ACORDADO ANTES DO INÍCIO DA OPERAÇÃO
PART 6 – TANKER AND TERMINAL – AGREEMENTS PRE-TRANSFER

Parte 5 Item *Part 5 Item*	Acordado *Agreement*	Detalhes *Details*	Rubrica Navio *Tanker initials*	Rubrica Terminal *Terminal initials*
45 46	**Limites para as operações de carga, abastecimento e lastro.** *Limits for cargo, bunkers and ballast handling.*	**Vazões máximas de transferência:** *Maximum transfer rates:* **Vazões de top:** *Topping-off rates:* **Pressão máxima no manifold:** *Maximum manifold pressure:* **Temperatura da carga:** *Cargo temperature:* **Outras limitações:** *Other limitations:*		
45 46	**Controle de surto de pressão.** *Pressure surge control.*	**Número mínimo de tanques de carga alinhados:** *Minimum number of cargo tanks open:* **Protocolos de mudança de tanques:** *Tank switching protocols:* **Vazão máxima:** *Full load rate:* **Vazão de top:** *Topping-off rate:* **Tempo de fechamento de válvulas automáticas:** *Closing time of automatic valves:*		
46	**Procedimentos de supervisão da operação de transferência.** *Cargo transfer management procedures.*	**Períodos de notificação para ações:** *Action notice periods:* **Protocolos de parada de transferência:** *Transfer stop protocols:*		
50	**Rotina para verificações regulares da quantidade de carga movimentada é acordada.** *Routine for regular checks on cargo transferred are agreed.*	**Verificações de rotina da quantidade transferida:** *Routine transferred quantity checks:*		
51	**Sinais de emergência.** *Emergency signals.*	**Navio:** *Tanker:* **Terminal:** *Tanker:*		

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PETROBRAS TRANSPORTE S.A. TRANSPETRO	**LISTA DE VERIFICAÇÃO DE SEGURANÇA NAVIO/TERMINAL** *SHIP/SHORE SAFETY CHECK LIST*	**SGF-PET-FM-010**
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PARTE 6 – NAVIO E TERMINAL – ACORDADO ANTES DO INÍCIO DA OPERAÇÃO *PART 6 – TANKER AND TERMINAL – AGREEMENTS PRE-TRANSFER*				
Parte 5 Item *Part 5 Item*	**Acordado** *Agreement*	**Detalhes** *Details*	**Rubrica Navio** *Tanker initials*	**Rubrica Terminal** *Terminal initials*
55	**Sistema de alívio dos tanques.** *Tank venting system.*	**Procedimento:** *Procedure:*		
55	**Operações fechadas.** *Closed operations.*	**Requisitos:** *Requirements:*		
56	**Rede de retorno de vapor.** *Vapour return line.*	**Parâmetros operacionais:** *Operational parameters:* **Vazão máxima:** *Maximum flow rate:*		
60	**Nitrogênio fornecido pelo terminal.** *Nitrogen supply from terminal.*	**Procedimentos de recebimento:** *Procedures to receive:* **Pressão máxima:** *Maximum pressure:* **Vazão:** *Flow rate:*		
XX	**Exceções e acréscimos.** *Exceptions and additions.*	**Questões especiais que ambas as partes devem estar cientes:** *Special issues that both parties should be aware:*		

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Data e Hora: _____
Date and Time

Porto e Berço: _____
Port and Berth

Nome do Navio: _____
Ship's Name

Terminal: _____
Terminal

Produto a ser transferido: _____
Product to be transferred

PARTE 7A – NAVIO TANQUE GERAL – VERIFICAÇÕES ANTES DA OPERAÇÃO
PART 7A – GENERAL TANKER – CHECKS PRE-TRANSFER

Item *Item*	Verificação *Check*	Condição *Status*	Observações *Remarks*
84	**Bandejas portáteis estão corretamente posicionadas e vazias.** *Portable drip trays are correctly positioned and empty (23.7.5).*	☐ **Sim**/Yes	
85	**As válvulas de gás inerte de cada tanque estão alinhadas e travadas de acordo com plano de carga.** *Individual cargo tank inert gas supply valves are secured for cargo plan (12.1.13.4).*	☐ **Sim**/Yes	
86	**O SGI está entregando gás inerte com teor de oxigênio de no máximo de 5%.** *Inert gas system delivering inert gas with oxygen content not more than 5% (11.1.3).*	☐ **Sim**/Yes	
87	**Os alarmes de nível alto dos tanques estão operacionais.** *Cargo tank high level alarms are operational (12.1.6.6.1).*	☐ **Sim**/Yes	
88	**Todas as aberturas dos tanques de carga, lastro e combustível estão fechadas.** *All cargo, ballast and bunker tanks openings are secured (23.3).*	☐ **Sim**/Yes	

PARTE 7B – NAVIO – VERIFICAÇÕES ANTES DA OPERAÇÃO, SE COW É PLANEJADA
PART 7B – TANKER – CHECKS PRE-TRANSFER IF COW IS PLANNED

Item *Item*	Verificação *Check*	Condição *Status*	Observações *Remarks*
89	**O *checklist* completo de COW antes da chegada, conforme contido no manual de COW aprovado, é copiado ao terminal.** *The complete pre-arrival COW checklist, as contained in the approved COW manual, is copied to terminal (12.5.2, 21.2.3).*	☐ **Sim**/Yes	
90	**Os *checklists* de COW para uso antes, durante e após a operação estão disponíveis e prontos para serem utilizados, como contido no manual de COW aprovado.** *COW checklists for use before, during and after COW are in place ready to complete, as contained in the approved COW manual (12.5.2, 21.6).*	☐ **Sim**/Yes	

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VERIFICAÇÕES APÓS A REUNIÃO DE LIBERAÇÃO INICIAL
CHECKS AFTER PRE-TRANSFER CONFERENCE

PARTE 7C – NAVIO – VERIFICAÇÕES ANTES DE OPERAÇÕES DE LIMPEZA E DESGASEIFICAÇÃO DE TANQUES ATRACADO
PART 7C – TANKER – CHECKS PRIOR TO TANK CLEANING AND/OR GAS FREEING ALONGSIDE

Item *Item*	**Verificação** *Check*	**Condição** *Status*	**Observações** *Remarks*
91	**Autorização para operação de limpeza de tanques confirmada.** *Permission for tank cleaning operation is confirmed (21.2.3, 21.4, 25.4.3).*	☐ **Sim/**Yes	
92	**Autorização para operação de desgaseificação de tanques confirmada.** *Permission for gas freeing operation is confirmed (12.4.3).*	☐ **Sim/**Yes	
93	**Os procedimentos para limpeza de tanques estão acordados.** *Tank cleaning procedures are agreed (12.3.2, 21.4, 21.6).*	☐ **Sim/**Yes	
94	**Se for necessário a entrada em tanques de carga, os procedimentos para entrada em espaços confinados devem ser acordados com o terminal.** *If cargo tank entry is required, procedures for entry have been agreed with the terminal (10.5).*	☐ **Sim/**Yes	
95	**Requisitos e tancagem para recebimento de *slops* estão confirmados.** *Slop reception facilities and requirements are confirmed (12.1, 21.2, 21.4).*	☐ **Sim/**Yes	

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PETROBRAS TRANSPORTE S.A. TRANSPETRO	**LISTA DE VERIFICAÇÃO DE SEGURANÇA NAVIO/TERMINAL** *SHIP/SHORE SAFETY CHECK LIST*	**SGF-PET-FM-010**
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DECLARAÇÃO
Declaration

Nós, abaixo assinados, verificamos os itens nas partes aplicáveis de 1 a 7, conforme assinalados e assinados abaixo:
We the undersigned have checked the items in the applicable parts 1 to 7 as marked and signed below:

	Navio *Tanker*	**Terminal** *Terminal*
Parte 1A – Navio: Verificações antes da chegada *Part 1A – Tanker: Checks pre-arrival*	☐	☐
Parte 1B – Navio: Verificações antes da chegada, se equipado com SGI *Part 1B – Tanker: Checks pre-arrival if using an inert gas system*	☐	☐
Parte 2 – Terminal: Verificações antes da chegada *Part 2 – Terminal: Checks pre-arrival*	☐	☐
Parte 3 - Navio: Verificações após a atracação *Part 3 – Tanker: Checks after mooring*	☐	☐
Parte 4 – Terminal: Verificações após a atracação *Part 4 – Terminal: Checks after mooring*	☐	☐
Parte 5A – Navio e Terminal: Reunião de Liberação Inicial *Part 5A – Tanker and Terminal: Pre-transfer conference*	☐	☐
Parte 6 – Navio e Terminal: Acordado antes do início da operação *Part 6 – Tanker and Terminal: Agreements pre-transfer*	☐	☐
Parte 7A – Navio Tanque Geral: Verificações antes da operação *Part 7A – General tanker: Checks pre-transfer*	☐	☐
Parte 7B – Navio: Verificações antes da operação, se COW é planejada *Part 7B – Tanker: Checks pre-transfer if COW is planned*	☐	☐
Parte 7C – Navio: Verificações antes das operações de limpeza e desgaseificação de tanques *Part 7C – Tanker: Checks prior to tank cleaning and/or gas freeing*	☐	☐

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De acordo com as orientações do capítulo 25 do ISGOTT, declaramos de que as verificações que efetuamos estão de acordo, tanto quanto é do nosso conhecimento, e que o navio e o terminal estão de acordo para a realização da operação de transferência.
In accordance with the guidance in chapter 25 of ISGOTT, we have satisfied ourselves that the entries we have made are correct to the best of our knowledge and that the tanker and terminal are in agreement to undertake the transfer operation.

Também concordamos em realizar as verificações repetitivas observadas nas partes 9 e 10 do ISGOTT SSSCL, que devem ocorrer em intervalos de não mais que _____ horas para o navio e não mais de _____ horas para o terminal.
We have also agreed to carry out the repetitive checks noted in parts 9 and 10 of the ISGOTT SSSCL, which should occur at intervals of not more than ____ hours for the tanker and not more than ____ hours for the terminal.

Se, pelo nosso conhecimento, a condição de qualquer item mudar, informaremos imediatamente a outra parte.
If, to our knowledge, the status of any item changes, we will immediately inform the other party.

Navio *Tanker*	**Terminal** *Terminal*
Nome: *Name*	Nome: *Name*
Função: *Rank*	Função: *Position*
Assinatura: *Signature*	Assinatura: *Signature*
Data: *Date*	Data: *Date*
Hora: *Time*	Hora: *Time:*

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PETROBRAS TRANSPORTE S.A. TRANSPETRO	**LISTA DE VERIFICAÇÃO DE SEGURANÇA NAVIO/TERMINAL** *SHIP/SHORE SAFETY CHECK LIST*	**SGF-PET-FM-010**
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VERIFICAÇÕES DURANTE A OPERAÇÃO –VERIFICAÇÕES REPETITIVAS
CHECKS DURING TRANSFER – REPETITIVE CHECKS

PARTE 8 – NAVIO – VERIFICAÇÕES REPETITIVAS DURANTE E APÓS A OPERAÇÃO
PART 8 – TANKER – CHECKS DURING AND AFTER TRANSFER

Item *Item*	**Verificação** *Check*	**Hora** *Time*	**Hora** *Time*	**Hora** *Time*	**Hora** *Time*	**Hora** *Time*	**Hora** *Time*	**Observações** *Remarks*
Tempo de intervalo: hrs *Interval time: hrs*								
8	**Registrador de pressão e O_2 do SGI está operacional.** *Inert gas system pressure and oxygen recording operational.*	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	
9	**SGI e todos os equipamentos associados estão operacionais.** *Inert gas system and all associated equipment are operational.*	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	
11	**Os tanques de carga estão com pressão positiva.** *Cargo tank atmospheres are at positive pressure.*	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	
18	**O arranjo de amarração é eficaz.** *Mooring arrangement is effective.*	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	
19	**O acesso entre o navio e o terminal é seguro.** *Access to and from the tanker is safe.*	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	
20	**Embornais e bandejas de contenção estão efetivamente bujonados.** *Scuppers and save-alls are plugged.*	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	
23	**Todas as portas externas e demais portas e vigias nas acomodações, paióis e espaços de máquinas estão fechadas.** *External openings in superstructures are controlled.*	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	
24	**A ventilação da casa de bombas é eficaz.** *Pumproom ventilation is effective.*	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	

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PARTE 8 – NAVIO – VERIFICAÇÕES REPETITIVAS DURANTE E APÓS A OPERAÇÃO
PART 8 – TANKER – CHECKS DURING AND AFTER TRANSFER

Item *Item*	**Verificação** *Check*	**Hora** *Time*	**Hora** *Time*	**Hora** *Time*	**Hora** *Time*	**Hora** *Time*	**Hora** *Time*	**Observações** *Remarks*
Tempo de intervalo: hrs *Interval time: hrs*								
28	**As defensas são eficazes.** *Fendering is effective.*	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	
32	**O navio está pronto para se movimentar no período de notificação acordado.** *Tanker is ready to move at agreed notice period.*	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	
33	**Comunicação é eficaz.** *Communications are effective.*	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	
35	**A supervisão, acompanhamento e vigilância da operação é adequado.** *Operation supervision and watchkeeping is adequate.*	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	
36	**Existe pessoal suficiente para enfrentar uma emergência.** *There are sufficient personnel to deal with an emergency.*	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	
37	**Locais para fumar e as restrições ao fumo estão sendo cumpridas.** *Smoking restrictions and designated smoking areas are complied with.*	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	
38	**As exigências quanto a luzes desprotegidas estão sendo cumpridas.** *Naked light restrictions are complied with.*	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	
39	**O controle de dispositivos elétricos e eletrônicos está sendo cumprido.** *Control of electrical and electronic devices in hazardous zones is complied with.*	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	
40 41 42 51	**Preparação para resposta a emergências é satisfatório.** *Emergency response preparedness is satisfactory.*	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	

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PARTE 8 – NAVIO – VERIFICAÇÕES REPETITIVAS DURANTE E APÓS A OPERAÇÃO *PART 8 – TANKER – CHECKS DURING AND AFTER TRANSFER*								
Item *Item*	**Verificação** *Check*	**Hora** *Time*	**Hora** *Time*	**Hora** *Time*	**Hora** *Time*	**Hora** *Time*	**Hora** *Time*	**Observações** *Remarks*
Tempo de intervalo: hrs *Interval time: hrs*								
54	**O isolamento elétrico na interface navio/terminal é eficaz.** *Electrical insulation of the tanker/terminal interface is effective.*	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	
55	**Sistema de alívio dos tanques e procedimentos para operação fechada estão transcorrendo como acordado.** *Tank venting system and closed operation procedures are as agreed.*	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	
85	**As válvulas de gás inerte de cada tanque estão alinhadas e travadas como acordado.** *Individual cargo tank inert gas valves settings are as agreed.*	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	
86	**O SGI está entregando gás inerte com teor de oxigênio de no máximo de 5%.** *Inert gas system delivering inert gas with oxygen content not more than 5%.*	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	
87	**Os alarmes de nível alto dos tanques estão operacionais.** *Cargo tank high level alarms are operational.*	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	
Rubricas *Initials*								

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PETROBRAS TRANSPORTE S.A. TRANSPETRO	**LISTA DE VERIFICAÇÃO DE SEGURANÇA NAVIO/TERMINAL** *SHIP/SHORE SAFETY CHECK LIST*	**SGF-PET-FM-010**
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PARTE 9 – TERMINAL – VERIFICAÇÕES REPETITIVAS DURANTE E APÓS A OPERAÇÃO
PART 9 – TERMINAL – CHECKS DURING AND AFTER TRANSFER

Item *Item*	**Verificação** *Check*	**Hora** *Time*	**Hora** *Time*	**Hora** *Time*	**Hora** *Time*	**Hora** *Time*	**Hora** *Time*	**Observações** *Remarks*
Tempo de intervalo: hrs *Interval time: hrs*								
18	**O arranjo de amarração é eficaz.** *Mooring arrangement is effective.*	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	
19	**O acesso entre o terminal e o navio é seguro.** *Access to and from the tterminal is safe.*	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	
28	**As defensas são eficazes.** *Fendering is effective.*	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	
31	**Àreas de contenção de derramamentos e *sump tanks* estão fechados.** *Spill containment and sumps are secure.*	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	
33	**Comunicação é eficaz.** *Communications are effective.*	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	
35	**A supervisão, acompanhamento e vigilância da operação é adequado.** *Operation supervision and watchkeeping is adequate.*	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	
36	**Existe pessoal suficiente para enfrentar uma emergência.** *There are sufficient personnel to deal with an emergency.*	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	
37	**Locais para fumar e as restrições ao fumo estão sendo cumpridas.** *Smoking restrictions and designated smoking areas are complied with.*	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	
38	**As exigências quanto a luzes desprotegidas estão sendo cumpridas.** *Naked light restrictions are complied with.*	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	
39	**O controle de dispositivos elétricos e eletrônicos está sendo cumprido.** *Control of electrical and electronic devices in hazardous zones is complied with.*	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	

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PARTE 9 – TERMINAL – VERIFICAÇÕES REPETITIVAS DURANTE E APÓS A OPERAÇÃO
PART 9 – TERMINAL – CHECKS DURING AND AFTER TRANSFER

Item *Item*	**Verificação** *Check*	**Hora** *Time*	**Hora** *Time*	**Hora** *Time*	**Hora** *Time*	**Hora** *Time*	**Hora** *Time*	**Observações** *Remarks*
Tempo de intervalo: hrs *Interval time: hrs*								
40 41 42 51	**Preparação para resposta a emergências é satisfatório.** *Emergency response preparedness is satisfactory.*	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	
54	**O isolamento elétrico na interface navio/terminal é eficaz.** *Electrical insulation of the tanker/terminal interface is effective.*	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	
55	**Sistema de alívio dos tanques e procedimentos para operação fechada estão transcorrendo como acordado.** *Tank venting system and closed operation procedures are as agreed.*	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	☐ **Sim/** Yes	
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