TRANSPETRO

PORT INFORMATION

Terminal
SÃO SEBASTIÃO

4th edition / 2013

SUMMARY

1 Introduction

This publication has been prepared by Petrobras Transporte S.A. (Transpetro), which operates the Terminal Aquaviário de São Sebastião. It provides essential information to vessels operating in the Terminal and is available in Portuguese and English versions.

This document is also distributed internally within the organization, to interested parties in the port and to local and national authorities.

The information contained herein is designed to complement and not to replace or alter any type of national or international legislation, instruction, guide or official publication. Therefore, anything that contradicts any item in the aforementioned documents should be disregarded.

The Terminal reserves the right to alter any of its operational features herein presented, without prior notice.

If any information is found to be incorrect and in need of updating, please contact:

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The latest versions of this publication and those of other Transpetro Terminals can be obtained on the following site: **www.transpetro.com.br**.

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Definitions

BP – Bollard-pull

COW – Crude oil washing

Squat effect – Increase in vessel draft caused by increased speed

GIAONT – (Grupo de Inspeção e Acompanhamento Operacional de Navios e Terminais.) Safety Inspector

IMO – International Maritime Organization

ISGOTT – International Safety Guide for Oil Tankers and Terminals

ISPS Code – International Ship and Port Facility Code

Neap Tide – Condition when the high tide is at its lowest point at certain times of year

Spring Tide – Condition when the high tide is at its highest point at certain times of year

NPCP – (Normas e Procedimentos da Capitania dos Portos) Harbor Master/Port Captaincy Norms and Procedures

ERP – Emergency Response Plan

IEP – Individual Emergency Plan

Terminal Aquaviário de São Sebastião – Terminal Almirante Barroso (TEBAR)

SDW – Summer Deadweight

VTS – Vessel Traffic Service


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Charts and Documents

Information on the Terminal may be obtained in the following publications:

Charts

Area	Brazil DHN (Hydrography and Navigation Directory) Chart Nº
Anchoring and port approach	1643/1644
Port entry and channels	1614
Terminal and approach area	1645
North Bar approach	1641
South Bar approach	1642
General	23100

Other publications

Type/Subject	Source Brazil (DHN)
NPCP (Harbor Master/Port Captaincy Norms and Procedures)	NCPC
Navigational Support on the south coast	South coast route


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Documents and Information Exchange

Os itens relacionados a seguir devem ser providenciados pelo Terminal ou pelo navio, conforme indicado na tabela.

Information	Prepared by:			Delivered to:			Comments
	Terminal	Vessel	Both	Terminal	Vessel	Both	
Before Arrival							
Estimated Time of A rrival (ETA) and vessel information		X		X			As per Appendix D
Before Cargo Transfer or Bunker							
Details of cargo/ slop/ ballast on board		X		X			As per Appendix E
Essential operating information (to be filled in locally	X				X		As per Appendix E
Ship/Shore Safety **Checklist**			X			X	Conforme Apêndice A do Isgott
During Cargo Transfer or Bunker							
Repeat Ship/Shore Safety Checklist			X			X	As per ISGOTT Appendix A

continua

Information	Prepared by:			Delivered to:			Comments
	Terminal	Vessel	Both	Terminal	Vessel	Both	
During Cargo Transfer or Bunker							
Information required for vessel unberthing			X			X	Quantity of fuel and water on board
After unberthing, when leaving the port							
Information regarding port departure data		X		X			Pilot disembarkation time and port departure time

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Description of the Harbour and Anchorage

5.1 General Description

The Terminal Aquaviário de São Sebastião comprises two piers with four berths. It is located in the city of São Sebastião, São Paulo State and is operated by Petrobras Transporte S.A. (Transpetro). The Terminal operates with tankers carrying national and imported petroleum and derivatives.

The transportation of petroleum by the São Sebastião Terminal serves the four refineries in Saõ Paulo State: REPLAN, REVAP, RECAP and RPBC. The petroleum is transferred to the refineries by means of pipelines, with the OSVAT line serving REPLAN and REVAP, and OSBAT supplying RPBC and RECAP.

The transportation of domestic petroleum means the Terminal is also an export and cabotage entrepôt for smaller terminals.

Derivatives enter the Terminal by means of the OSPLAN pipeline and also in oil tankers, either via cabotage or importation. Derivatives also leave the Terminal by means of the OSPLAN pipeline or in vessels destined for other domestic ports or abroad.

The Terminal also supplies bunker to vessels operating in it facilities.

5.2 Location

5.2.1 Coordinates

The Terminal São Sebastião Aquaviário is located at the following coordinates: latitude 23° 48' 12" S and longitude 045° 23' 18" W.

5.2.2 General geographical location

The Terminal is situated on the east bank of the São Sebastião channel, São Paulo State, on the southeast coast of Brazil.

5.3 Approaching the Terminal

5.3.1 General description

The best route for access to the port is via the south bar. The port and its accesses can be found in DHN nautical charts 1614, 1643 and 1644. The Roteiro Costa Sul (South Coast Route) should be consulted, as well as information published in the Avisos aos Navegantes (Warnings to Navigators).

The São Sebastião port channel extends for 12.3 miles, as marked in DHN nautical chart 1614.

The south bar channel, dredged to 25 meters, and 300 meters wide at its narrowest point, is marked in DHN nautical charts 1614 and 1643 and allows entry and exit of vessels with a draft of up to 23 meters. It is preferable that vessels with a draft of more than 20 meters should navigate the center of the channel, and that maneuvers should be carried out at diurnal high tide in meteorologically favorable conditions.

The north bar channel, swept to18 meters, is 550 meters wide at its narrowest point, is marked in DHN nautical charts 1614 and 1644 and allows entry and exit of vessels with a draft of up to 10 meters. Vessels with a draft of more than 18 meters should pay special attention when navigating the São Sebastião channel. DHN nautical charts 1614, 1643 and1644 point out the various hazards at depths of 20 meters or less close to the channel limits. Caution is recommended in relation to those areas with underwater cables, marked in DHN nautical charts 1614 and 1643.

5.3.2 Anchorage area

North Bar: area demarcated to the north by the alignment of the Farolete São Sebastião (lighthouse) and Ponta das Canas, and to the south by the alignment of Pontal da Cruz and Trapiche da Vila de Ilhabela. Anchorage sites are those designated in DHN nautical chart 1614 and are for use by vessels of more than 100,000 GT or those in need of emergency repairs. They may also be used as shelter in case of bad weather.

South Bar approach: area demarcated to the north by the alignment of Ponta do Baleeiro with the central section of Praia das Fazendas, and to the south by parallel 23° 54,0' S and meridian 045° 31,0' W, with a capacity for four vessels in the following anchorage sites:

→ (1) 23° 50,2' S and 045° 25,6' W

→ (2) 23° 50,6' S and 045° 26,1' W

→ (3) 23° 51,0' S and 045° 26,6' W

→ (4) 23° 51,5' S and 045° 27,1' W

Anchorage with seven fathoms of anchor line is recommended, bearing in mind the intensity of tidal current in the area.

Vessels are strictly forbidden to anchor in the maneuver area, understood as the channel's maritime area, demarcated to the north by the alignment of Pontal da Cruz with Trapiche da Vila de Ilhabela and to the south by the alignment of Ponta do Baleeiro with the central section of Praia da Fazenda.

The maximum stopover time for vessels in the anchorage area is limited to 15 days to prevent the area becoming a parking lot for vessels with no scheduled mooring date. Exceptional cases will be assessed by the São Sebastião Harbor Master / Port Captaincy (Delegacia da Capitania dos Portos de São Sebastião) at the request of the person responsible, if accompanied by an action program.

Sport and recreation vessels should anchor outside the swept channel.

Anchorage sites have a sandy, mud seabed, which ensures safe anchorage for vessels. However, special care must be taken when there are strong winds, especially from the SW, when the current gains added strength, dragging anchored vessels, as has occurred on several occasions.

5.3.3 Navigational aids

South Bar: This is the best and the safest route for access to the Terminal. The Ponta da Sela lighthouse, located on the extreme SW point of São Sebastião Island, marks the south channel bar, emitting white light, with a tower of white and red horizontal stripes (international number G0480). Laje dos Moleques, situated on the NW bank of the channel, has a quadrangular brick tower, painted green, emitting green lights (international number G0478). The Pontinha Lighthouse, situated on the SE bank of the channel, emits a red light and is mounted on a quadrangular metal frame, painted white (International number G0477). The access channel is 300 meters wide at its narrowest point, swept to a depth of 25 meters, demarcated by four beacons: Beacons 1 and 3 – painted red, with red lights, mark the SE bank of the channel; Beacons 2 and 4, painted green, with

green lights, mark the NW bank of the channel. The channel is marked in DHN charts 1643 and 1644.

The speed limit in the Port of São Sebastião for merchant vessels is 8 knots. The beacon lights and painting in the south bar channel are in accordance with the IALA System (International Association of Lighthouse Authorities Lateral System A and B) – red starboard side and green port side.

North Bar: The Ponta das Canas Lighthouse, situated at the extreme northern point of São Sebastião Island, demarcates the channel's north bar, emitting white light, with a cylindrical reinforced concrete red-and-white striped tower. (international number G0470).

The São Sebastião Lighthouse, situated on the west bank of the channel, emits red light and has a quadrangular tower in red stone mounted on a reinforced concrete platform (international number G0472). The Ponta do Viana Lighthouse, situated on the east bank of the channel (on São Sebastião Island) emits white light and has a metal frame on a white reinforced concrete quadrangular column. The Ilhabela Lighthouse, situated at the east bank of the channel (on São Sebastião Island) emits red light and has a red stone quadrangular tower on a platform of reinforced concrete. The north bar channel, swept to a depth of 18 meters and 550 meters wide at its narrowest point, is marked on DHN charts 1614 and 1643. Access is limited to vessels drawing 10 meters maximum. Attention should be paid to the existence of underwater cables, marked on DHN charts 1614 and 1644. Anchoring is not permitted in the marked area. Vessels in motion must keep their anchors above the waterline length. The Terminal has four small lighthouses with flashing yellow lights, with a range of 5 nautical miles, in the extreme NE and SW and two where the berths form a T-junction. Details of the characteristics of lighthouses, buoys etc can be found in the DHN LISTA DE FARÓIS (Lighthouse List) – DH-2.

5.3.4 Port limits

The channel area is defined by parallels 23° 42,0' S and 23° 54,0' S.

5.3.5 Recommendations

Vessels entering by the south bar to berth at the Terminal Aquaviário de São Sebastião, irrespective of the mooring berth, must pass their fore and aft towing ropes to tugs on passing buoys 3 and 4 and Ilha das Cabras.

Vessels entering by the north bar or anchorage area 1 to berth at the Terminal Aquaviário de São Sebastião must pass their fore and aft towing ropes to tugs by the limits of Ponta do Pequeá.

Vessels entering by the south or north bar to berth at the Terminal Aquaviário de São Sebastião, depending on the berth and designated berthing side, must have their gy-

roscope set as follows: Area A – centralized at latitude 23° 48.3' S and longitude 045° 2.,9' W; Area B – centralized at latitude 23° 48.0' S and longitude 045° 22.7' W; and Area C – centralized at latitude 23°49.1' S and longitude 045° 23.5' W.

Vessels displacing more than 150,000 tons must approach the pier slowly, gradually and parallel, at a distance of not less than 200 meters. 150 meters from the pier, approaching speed must be less than 30 cm/s, and at 50 meters it must be less than 6 cm/s. Vessels displacing less than 150,000 tons must be parallel to the pier, at a minimum distance of 100 meters, maintaining the above-mentioned speeds. Ships maneuvering to enter berth 2 (internal berth) must not pass at a distance less than 200 meters from dolphin 14 on the south pier, to the east and the south. On entering berth 2, they must be parallel to the berth at a minimum distance of 70 meters from dolphin 14, berth 2. To enter berth 4 (internal berth), the distance must be at least 70 meters from dolphin 4, north pier.

The Operations Technician must guide the positioning of the vessel (manifold) in relation to that of the loading arm/hose so as to allow for safe operations, considering all the products to be handled. Terminal-to-vessel contact on berthing or unberthing is not limited to the pilot. The ship's captain must be notified by the Safety Inspector of any vessel irregularity that could pose a risk to the Terminal so that measures can be taken in good time.

5.3.6 Pilot Services

Pilot services are mandatory for all vessels heading to the Terminal de São Sebastião and when it is necessary to change berths or anchorage in area number 1. Areas where the pilot waits and is released are demarcated by circular areas with a radius of 0.5 nautical miles, centered at the following coordinates (DHN charts 1614): north bar latitude 23° 42' 30" S and longitude 045° 21' 00" W; south bar latitude 23° 53' 30" S and longitude 045° 29' 30" W.

The Pilotage Zone is understood as follows:

→ **North Bar:** dfrom the alignment formed by points 23° 43' 03 S / 045° 20.2' W and 23° 43.0' S /045° 29.0' W to mooring.

→ **South Bar:** from the alignment formed by points 23° 53.6' S / 045° 28.0' W and 23° 52.7' S /045° 29.0' W to mooring.

Requests for pilot services for entry maneuvers should be made through an agent attached to a shipping company or, to the Terminal Marítimo Almirante Barroso when the vessels belong to or are chartered by Transpetro, 24 hours in advance via PPS (Santos Radio) or PTS (São Sebastião Radio), specifying vessel ETA. The Associação de

Práticos do Canal e Porto de São Sebastião (Pilotage Control), keeps permanent watch on channel 16 (VHF).

It is recommended that pilots comply strictly with Pilotage Norms with respect to information given to the Port Captaincy Officer in São Sebastião concerning irregularities during maneuvers. The following are understood as irregularities: beacons damaged or out of position, vessels presenting engine or maneuverability problems, the movement of other vessels putting merchant vessels navigating the channel at risk, problems with tugs and others.

Each captain is held solely responsible for maneuvers and must supply pilots with all information on any peculiarity, specific condition or difficulty, such as: engine or boiler problems, problems with or damage to navigational aid equipment, mooring lines or any element offering risks regarding mooring, line release, or loading/unloading discharging?the vessel.

Once berthed, vessels must present conditions regarded as satisfactory by the pilot, Safety Inspectors and Terminal operators.

Should the captain not follow the pilot's instructions regarding the safety of vessel maneuvers, the Harbor Master/Port Captaincy must be informed in writing by the vessel's agency. This occurrence will be reported to the Terminal Aquaviário de São Sebastião by the vessel's agency.

5.3.7 Tugboats and Port Services

Communication between tugs and vessels

Tug services are mandatory inside the maritime area between the alignments of Ponta do Baleeiro - Praia da Fazenda and São Sebastião Lighthouse –Ponta das Canas. At the discretion of the ship's captain, assisted by the pilot, tugboats may be used with tow made fast.

→ Note: Vessels equipped with a bow thruster and stern thruster in perfect working order may be authorized to head for the anchorage area in the São Sebastião channel without the use of tugs, weather and sea conditions permitting.

The terminal has four contracted AZIMUTHAL tugs, all above 40T Bollard Pull.

Pilot services have been directing captains of tankers of 220,000 GT or more to use the minimum number of tugs in berthing and unberthing maneuvers as follows:

→ **Berthing:** five tugs, with a minimum of four above 40T Bollard Pull and one above 30T Bollard Pull.

→ **Unberthing:** four tugs, with a minimum of four above 40T Bollard Pull.

One tug has a fire-fighting system on board.

Communication between tugs and vessels during berthing and unberthing maneuvers is effected via VHF radio. Such equipment remains switched on permanently as a means of answering any call from a vessel berthed at the pier, or from any of the Terminal's operations personnel. As an alternative in cases of equipment failure on board the vessel or tug during maneuvers, **vessels will use the following whistle signals**:

Call

→ 4 long blasts, followed by 1 or 2 short – the number of short blasts defines if one or two tugs are being called, respectively.

Before passing the towing lines

→ 2 short blasts – prepare to push forward or take the bow line.
→ 3 short blasts – prepare to push backwards or take the stern line.

After passing the towing lines

→ 1 long blast – pull to starboard.
→ 2 short blasts – pull to port.
→ 3 short blasts – stop pulling.

Maneuvering alongside

→ 1 short blast – pull.
→ 2 short blasts – push.

Other whistle signals are used for auxiliary vessels:

Call

→ 2 long blasts followed by one short – to call the pilot boat.
→ 1 long blast followed by one short – to call the launch.

All orders received by the tug should be acknowledged by a short blast.

Since tugs are equipped with VHF radios, maneuvering orders are usually transmitted by phone. When, for reasons of safety, a pilot judges it necessary to have more tugs than the stipulated number, the justification must be forwarded in writing to the Port Captaincy immediately after maneuvers. When sea conditions, wind strength or visibility do not permit safe maneuvering, the Pilot Association must inform the Port Captaincy officially in writing.

Whenever a tug presents operating restrictions that compromise its static bollard pull, the responsible agency must communicate this fact to the Port Captaincy and to the pilot station, and the tug must be withdrawn from operations.

In the case of a conflict between the ship's captain and the pilot as to the number of tugs and the tug facilities to be used, the captain's decision is final, and must be justified in writing to the Port Captaincy immediately after maneuvers.

It is the responsibility of the ship-owners or their authorized shipping agent to request the number of tugs necessary for maneuvers to be carried out, as per pilot recommendations, which must be ratified by the vessel captain.

Port services

→ Launches for transport of personnel: the Terminal does not provide launches for personnel transportation. This hiring of this service at the port may be requested through the ship's protective agent.

→ Launch for delivery of provisions: this service is provided by the ship's protective agent. The supply of provisions to a ship must be carried out when the vessel is berthed, in daylight, from the seaward side. Contracted launches must also obtain authorization from the Terminal before approaching the vessel. Loading/unloading equipment must be in good condition and procedures must be followed.

→ The Terminal offers a mooring service, which includes two launches with diesel engine motorboats to help with line maneuvers. This service may be called into action with one hour's advance notice by the shift operator, after the vessel's cargo agents have requested the services of a pilot.

5.3.8 Navigation risks

Vessels drawing more than 18 meters should pay special attention when navigating in the São Sebastião channel. DHN nautical charts 1614, 1643 and 1644 mark the various hazards at depths of 20 meters or less close to the channel limits. Care is recommended in relation to the existence of underwater cables, marked in DHN nautical charts 1614 and 1643. In the south bar approach, the charts mark Laje dos Moleques, formed by rocks, and Ilha das Cabras, as well as Ilha de São Sebastião, flanked by the São Sebastião channel.

5.3.9 General restrictions

The tidal range in the Port of São Sebastião varies between 0.2 meters at low tide and 1.5 meters at high tide, with an average of 0.66 meters. The water sometimes flows northwards, sometimes southwards, and the tidal currents are often very strong. In

these cases, vessel maneuvers in the channel are affected, mainly when winds attain significant force.

The Terminal's South Arm (Braço Sul) extends for 508 meters, with an external berth (PP-1) allowing a maximum draft of 22 meters, and an internal berth (PP-2), allowing a maximum draft of 16.9 meters, up to 17.5 meters in daylight or at high tide. The North Arm (Braço Norte) extends for 395 meters with an external berth (PP-3) allowing a maximum draft of 17,5 meters, and an internal berth (PP-4) with a maximum draft of 12.5 meters.

Merchant ships not bound for the Terminal Aquaviário de São Sebastião or the commercial port are not permitted in the channel.

It is forbidden for two or more merchant vessels to navigate in the south bar or north bar channels at the same time.

The surface speed limit for merchant vessels when navigating in the channel is 8 knots. Vessels moving in the channel are not allowed within 500 yards of anchored vessels.

Entry into the anchorage channel is forbidden at night, save for exceptional cases and only with the express authorization of the Port Captaincy.

Drafts:

→ **South bar access channel:**
Limited to a maximum draft of 22 meters.

→ **North bar access channel:**
Limited to a maximum draft of 10 meters

Berth drafts:

→ **South Pier:**
Berth PP-1 – 22.00 meters
Berth PP-2 – 16.90 meters and up to 17.5 meters
for berthing in daylight and at high tide.

→ **North Pier:**
Berth PP-3 – 17.50 meters
Berth PP-4 – 12.50 meters

Vessels are not permitted to anchor in the maneuver area.

Berthing in the Terminal is forbidden when the channel stream is greater than 3 knots or in cases of bad weather conditions when wind speed reaches 30 knots.

There are no restrictions to berthing or unberthing maneuvers at night.

Maneuvers by unloaded vessels are forbidden without ballast conditions as specified in the project.

5.4 Maneuver areas

This is the area demarcated by the alignments of Ponta do Araçá – Ilha das Cabras and Pontal da Cruz – Trapiche da Vila de Ilhabela. The strip marked out for vessel maneuvers (berthing and unberthing) is approximately 750 meters wide at its narrowest point, alongside the piers, and the anchorage of any vessel is strictly forbidden in this area, except with prior authorization from the Port Captaincy.

Vessels are berthed by preference against the flow of the current, using the resources necessary for executing the maneuvers safely and correctly, complying with the Norms and Procedures of the Port Captaincy / Harbor Master of São Paulo.

Berthing of vessels in the Terminal Aquaviário de São Sebastião is not allowed when current speed is equal to or greater than 3 knots, or in bad weather conditions.

When bad weather conditions are forecast, that is, when winds reach speeds of 22 knots, one tug must be kept alongside a vessel berthed in PP-1 if the vessel weighs less than 100,000 GT, with two tugs when the vessel weighs more than 100,000 GT; one tug must be kept alongside a vessel berthed in PP-3 if the vessel weighs less than 100,000 GT, with two tugs in cases of vessels weighing more than 100,000 GT.

5.4.1 Navigational and Berthing Aids

The Terminal possesses radar docking equipment to measure distances, speed and approach angles of berthing vessels.

The Terminal also has a current meter, which indicates current direction and speed in real time, an anemometer and anemoscope to show wind speed and direction, in addition to a meteorological station.

The terminal operator assists in the positioning of the vessel during berthing so that it is best positioned to enable connection to the loading arms, and the Safety Inspector helps in berthing operations.

5.4.2 Controlling depths

Drafts:

→ **South bar access channel:**
Limited to a maximum draft of 22 meters.

→ **North bar access channel:**
Limited to a maximum draft of 10 meters.

Berth drafts:

→ **South Pier:**
Berth PP-1 – 22.00 meters
Berth PP-2 – 16.90 meters and up to 17.5 meters
for berthing in daylight and at high tide.

→ **North Pier:**
Berth PP-3 – 17.50 meters
Berth PP-4 – 12.50 meters

The tidal range in the Port São Sebastião varies between 0.2 meters at low tide and 1.5 meters at high tide, with an average of 0.66 meters.

The points that mark the maximum draft for berthing in the Terminal are located the in the access channel and are described in nautical charts.

5.4.3 Maximum dimensions

The maximum vessel sizes for berthing in the Terminal Aquaviário de São Sebastião are 300,000 GT for berthing in PP-1, 155,000 in PP-2, 150,000 in PP-3 and 65,000 in PP-4, determined by engineering studies when the project was being developed.

5.5 Environmental factors

Meteorological conditions in São Sebastião are generally favorable. However, strong winds, currents, rains and cold fronts are common in the region, especially in autumn and winter.

The region where the Terminal is located experiences high relative air humidity of around 75%, often exceeding 85%. The atmospheric pressure is around 1.013 mb at sea level in good weather conditions. Local temperatures range from 15°C in July to 39°C in January. Further meteorological information is described in the following sections.

5.5.1 Prevailing winds

In autumn and winter, fresh, cool winds are common in the region. During the day, breezes tend to increase the easterly element of the wind, whereas at night, the westerly component prevails. At night, wind speed tends to decrease, reaching calm conditions around 20:00 hours. Southeast winds, carried by cold fronts, are more frequent in

the afternoon, and are stronger, raising sea level in protected areas. Their speed ranges from 20 to 60 knots.

5.5.2 Waves and swells

Waves that may affect maneuvers, even those of smaller vessels, are not found in the São Sebastião channel. The only waves are wind waves (ripples caused by the friction of the wind) which only affect the movement of very small craft (fishing and leisure).

5.5.3 Rainfall

Most rainfall in the region occurs at nightfall and sometimes lasts all through the night. This precipitation is more frequent in spring and summer. Average annual rainfall in the region is around 2,000 mm. There is no history of hail or snow in the region.

5.5.4 Lightning Storms

Lightning storms are more frequent in spring and summer, in the afternoon and early evening. The elements that contribute to their appearance are cold fronts and high temperatures during the day.

5.5.5 Visibility

Visibility is generally good, though mist occurs in the early morning in autumn and winter. In summer, dry fog sometimes appears, which reduces visibility.

5.5.6 Tidal and other currents

The currents are irregular, but they normally follow the direction of the wind. Depending on the strength and duration of the wind, the current attains significant force, able to jeopardize vessel maneuvers in the channel, especially with a cold front from the SW, when winds gain significant strength with prevailing SW and NW, when the current can reach 4 knots. Details of currents were studied from January to December 1984 and the strongest were found in the months of July (2.5 knots), September (2.8 knots), November (2.2 to 3.2 knots) and December (3.0 knots), all in a NE direction (from SW to NE).

5.5.7 Rise and fall in water levels

The tidal range in São Sebastião varies between 0.2 meters at low tide and 1.5 meters at high tide, with an average of 0.66 meters. However, heights of up to 0.2 meters have been observed during spring0.2 metros? and summer at high tide. Waters flow some-

times north and sometimes south in the channel with permanent flowing characteristics, as if they were a river following the orientation given by the channel.

5.5.8 Measurements/Readings

The Terminal can provide instant information as to the intensity and direction of the wind and current. When vessels begin their approach to the berths, this information is available to the representative on board through VHF radio via the Terminal operator.

6

Terminal Description

6.1 General Description

The Terminal Aquaviário de São Sebastião pier has four berths (PP-1, PP-2, PP-3 and PP-4). This pier begins at the southern end of Praia do Porto Grande, extends for 2,175 meters in the direction of Ilha Bela, is T-shaped and sits opposite the central section of Ilha de São Sebastião.

6.2 Physical Details of the Berths

The following table shows the characteristics of the berths at the Terminal.

Berth #	Berth Length (meters)	Draft (Max) (meters)	Beam (Max)	Vessel Length(m)		Product Carried	Maximum Ship Size GT
				Maximum	Mínimo		
PP-1	508	22.00	NA	350	120	Petroleu oil residues and bunker	300,000
PP-2	508	17.5	NA	280	120	Petroleum oil residues and bunker	155,000
PP-3	395	17.5	NA	280	120	Petroleum derivatives oil residues and bunker	150,000
PP-4	395	12.5	NA	260	120	Petroleum derivatives, alcohol oil residues and bunker	65,000

Note: Mooring berths are equipped with instruments that record speed and distance of vessel approach in relation to the longitudinal axis of the pier. The data is based on engineering studies..

6.3 Berthing and Mooring Arrangements

The number of tugs, maximum speed and approach angle, mooring hooks/bollards, and number of lines required for mooring vessels are defined in the following items. See table on the next page.

6.3.1 Recommended scheme for mooring oil tankerss

Vessels above 130,000 GT

→ 4 fiber heave lines, bow and stern; 4 steel lines, bow and stern; 2 steel spring lines, bow and stern.

Vessels between 80,000 and 130.000 GT

→ 4 fiber heave lines, bow and stern; 3 steel breast lines, bow and stern; 2 steel spring lines, bow and stern

→ If possible, the mooring scheme should approximate that of vessels above 130,000 GT.

Vessels less than 80,000 GT
(Mooring possible with only fiber lines)

→ 4 fiber heave lines, bow and stern, 3 fiber breast lines, bow and stern and 2 fiber spring lines, bow and stern.

Notes:

→ Steel breast and spring and lines will be acceptable to the Terminal.

→ The Terminal reserves the right to request that the captain make alterations to the mooring procedure if it is judged inadequate as to the safety of the pier and the vessel, and can even request that the vessel be unberthed.

→ For vessels up to 160,000 GT, equipped with twisted steel lines, the minimum satisfactory requirement will be 4 heave lines, 2 breast lines and 2 spring lines, bow and stern.

6.3.2 Mooring

Mooring lines require permanent attention when handled, so as to keep the vessel constantly in the position indicated. All lines must be kept at the correct tension at all times.

The winches should have constant tension, maintained through the use of manual brakes. The use of automatic tension winches is not allowed.

All mooring lines must be of the same material (fiber or steel wire). The use of mixed lines is not allowed – lines performing the same function should not be of different materials. These lines must be of the same type, gauge and material. Mooring lines must be arranged as symmetrically as possible in relation to the middle of the vessel The breast lines should be set up as perpendicularly as possible to the longitudinal axis of the vessel and passed as far as possible fore and aft.

The spring lines should be set up as parallel as possible to the longitudinal axis of the vessel. Lines that exercise the same function must be of the same type, gauge and material.

If fiber tails are used with wire lines, the tails must be of the same type, with gauge 25% greater than the minimum breaking stain of steel wire line, of the same material and the same length.

Lines must be arranged in such a way that that those exercising the same function are the same length, from onboard winch/bollard to the mooring point on the pier.

The horizontal angle of the bow and stern lines in relation to the direction of a breast line perpendicular to the longitudinal axis of a vessel must not exceed 45°.

Berth Nº	Pilot Required for Maneuvers	Vessel Size Example: GT (Max)	Nº of Tugboats and BP				Approach (Maximum)		Mooring Points		Mooring Lines (Head and stern)		
			Berthing		Unberthing		Speed (cm/s)	Angle	Bollards	Hooks	Head line	Breast line	Spring line
PP-1	yes	Up to 219,999	4	34	4	34	4	05°	4	22	4 fiber	4 steel	2 steel
		Up to 300,000	5	36	4	34	4	05°	4	22	4 fiber	4 steel	2 steel
PP-2	yes	155,000	4	34	4	34	8	05°	4	22	4 fiber	4 steel	2 steel
PP-3	yes	150,000	4	34	4	34	8	05°	7	8	4 fiber	4 steel	2 steel
PP-4	yes	65,000	3	34	3	34	10	05°	8	8	4 fiber	3 fiber	2 fiber

6.3.3 Norms for the use of tugs at the Terminal Aquaviário de São Sebastião

According to the norm established by the Port Captaincy/Harbor Master of São Paulo, during berthing and un-berthing maneuvers in normal conditions, the following minimum number of tugs should be used, or as many as necessary to sustain the following minimum bollard pull:

Correspondence between vessel SDW, total longitudinal bollard pull required and minimum number of tugs to be used in the São Sebastião channel (SP)

SDW (t)	Bollard Pull metric tons	Minimum Number of Tugs
Up to 2,000	2.5	2
From 2,001 to 2,500	3.0	2
From 2,501 to 5,000	7.0	2
From 5,001 to 7,500	9.0	2
From 7,501 to 10,000	11.0	2
From 10,001 to 12,500	14.0	2
From 12,501 to 15,000	17.0	2
From 15,001 to 17,500	19.0	2
From 17,501 to 20,000	21.0	2
From 20,001 to 25,000	25.0	2
From 25,001 to 30,000	28.0	2
From 30,001 to 35,000	32.0	2
From 35,001 to 40,000	36.0	2
From 40,001 to 45,000	39.0	2
From 45,001 to 50,000	42.0	2
From 50,001 to 60,000	46.0	2
From 60,001 to 70,000	51.0	2
From 70,001 to 80,000	53.0	2
From 80,001 to 90,000	55.0	2 to 3
From 90,001 to 100,000	56.0	2 to 3
From 100,001 to 110,000	58.0	2 to 3

SDW (t)	Bollard Pull metric tons	Minimum Number of Tugs
From 110,001 to 120,000	60.0	2 to 3
From 120,001 to 130,000	62.0	2 to 3
From 130,001 to 140,000	64.0	2 to 3
From 140,001 to 150,000	66.0	2 to 3
From 150,001 to 160,000	81.0	2 to 3
From 160,001 to 170,000	83.0	2 to 3
From 170,001 to 180,000	86.0	2 to 3
From 180,001 to 190,000	87.0	2 to 3
From 190,001 to 200,000	89.0	2 to 3
From 200,001 to 210,000	90.0	4
From 210,001 to 220,000	91.0	4
From 220,001 to 230,000	93.0	4
From 230,001 to 240,000	95.0	4
From240,001 to 250,000	96.0	4
From 250,001 to 270,000	98.0	4
From 270,001 to 290,000	101.0	4
From 290,001 to 310,000	106.0	4
From 310,001 to 330,000	110.0	4 to 6
From 330,001 to 350,000	114.0	4 to 6
From 350,001 to 370,000	118.0	4 to 6

The total values for bollard pull in this table are the minimum considered necessary for the execution of maneuvers, with tidal currents that do not affect them (table taken from Appendix 1, Annex A, Administrative Rule nº. 91).

6.4 Berth Features for Loading, Unloading/Discharging and Bunker

Berth Nº	Products	Nº and diameter of arms	Receive or Send	Temperature		Maximum Flow (m^3/h)	Maximum Pressure (kgf/cm^2)	Observations
				Min.	Max.			
PP-1	Petroleum and ballast	4 x 16"	Receive and send	Ambient	55ºC	9,000 (01 line) 18,000 (02 lines)	10	Line 07 with 34" Line 11 with 34"
	Marine Fuel	1 x 8"	Receive and send	Ambient	85ºC	500	10	Line 22 with 12"
	Marine Gas oil	1 x 8"	Receive and send	Ambient	Ambient	250	10	Line 31 with 08"
PP-2	Petroleum and ballast	3 x 16"	Receive and send	Ambient	55ºC	9,000 (01 line) 13,500 (02 lines)	10	Line 08 with 34" Line 10 with 34"
	Marine Fuel	1 x 8"	Receive and send	Ambient	85ºC	500	10	Line 22 with 12"
	Marine Gas oil	1 x 8" 1 x 4"	Receive and send	Ambient	Ambient	250	10	Line 31 with 08"
PP-3	Petroleum and ballast	1 x 12"	Receive and send	Ambient	55ºC	4,000	10	Line 10 with 34" Line 43 with 16"
	Diesel S10	2 x 12"	Receive and send	Ambient	Ambient	4,000	10	Line 02 with 24"
	Diesel ETE	1 x 12"	Receive and send	Ambient	Ambient	2,000	10	Line 42 with 24"
	QAV -1	2 x 12" 1 x 10" (hose)	Receive and send	Ambient	Ambient	4,000	10	Line 41 with 24"
	Gasoline and Natphtha	1 x 12" 1 x 10" (hose)	Send	Ambient	Ambient	4,000	10	Line 44 with 24"
	Marine Fuel	1 x 8"	Receive and send	Ambient	85ºC	500	10	Line 21 with 12"
PP-4	Marine Gas oil	1 x 4"	Receive and send	Ambient	Ambient	250	10	Line 31 with 08"
	Petroleum and ballast derivatives	1 x 8"	Receive and send	Ambient	55ºC	1,000	10	Line 43 with 16" Line 10 with 34"
	Diesel S10	2 x 10" (hose)	Receive and send	Ambient	Ambient	4,000	10	Line 02 with 24"
	Diesel ETE	1 x 8" 1 x 10" (hose)	Receive and send	Ambient	Ambient	3,000	10	Line 42 with 24"
	QAV -1	2 x 12" 1 x 10" (hose)	Receive and send	Ambient	Ambient	4,000	10	Line 41 with 24"
	Gasoline and Natphtha	1 x 12"	Receive and send	Ambient	Ambient	2,000	10	Line 44 with 24"
	Marine Fuel	1 x 8" (hose)	Receive and send	Ambient	85ºC	500	10	Line 21 with 12"
	Marine Gas oil	1 x 4" (hose)	Send	Ambient	Ambient	250	10	Line 31 with 08"

6.5 Management and Control

The Terminal Aquaviário de São Sebastião control room is located in the storage area, approximately 7km from the main pier. The operator responsible for controlling all Terminal operations by means of a supervision system, is stationed in this center.

There are two rooms, one on the north pier and one on the south pier, where the operators of that area prepare documents, handle communications and monitor the berthing and positioning of vessels. Communications with vessels are carried out via VHF radio, on a maritime frequency previously agreed on and registered. A secondary means of communication, through VHF onshore radio, is activated in case of a failure in the main system.

6.6 Major Risks

In cases of imminent bad weather, the following safety precautions are required by the Delegacia da Capitania dos Portos em São Sebastião (Terminal and the São Sebastião Port Captaincy).

Status	Determining Factors	Preventative and Corrective Measures	Objectives
Normal	Mooring in accordance with minimum requirements Good weather conditions Vessel mooring equipment in good condition Vessel crew trained	Routine inspection of mooring system.	
Alert/caution	Mooring contrary to certain minimum requirements Winches and/or mooring lines in poor state Crew poorly trained Periods of high variation in /discharge/unloading Periods of cargo/loading or ballast Trim very high Final sling discharge Bad weather forecast Wind speed above 17 to 20 knots Wind in gusts or changing suddenly in direction and strength Current more than 1m/s (2 knots)	Frequent inspections of mooring system.	Immediate discovery of any deviation from safe mooring conditions

Status	Determining Factors	Preventative and Corrective Measures	Objectives
Readiness	Imminent bad weather Wind speed in excess of 22 to 33 knots Current more than 1.5m/s (3 knots) Mooring with several discrepancies	Permanent inspection of mooring system Pilot, tugs and mooring team at the ready One tug must be alongside any vessel up to 100,000 GT, with two for any vessel above 100,000GT berthed at PP-1 and PP-3 Engine ready Send team to winches Reduce surface exposed to the wind Interrupt unloading and disconnect articulated arms.	Take immediate corrective measures in cases of significant deviations from safe mooring conditions.
Emergency	Wind speed in excess of 34 knots Current more than 2 m/s (4 knots) Mooring lines bearing high loads Vessel cannot be maintained moored within operational limits	Do not release the brakes to try to pull/hoist Lines Man the maneuver posts Call the pilot, tugs and mooring team Interrupt loading/unloading operations Strengthen brake torque Pass extra mooring lines Maintain articulated arms drained and the emergency disconnection system operational	Enable immediate corrective action in cases of very pronounced deviations from safe mooring conditions.

7

Procedures

During a vessel's laytime in the port, various steps are taken to enable a safe operation and manage risks in such a way as to minimize them. At every stage, as described in the items below, measures are taken with a view to facilitating operations and planning them accordingly.

7.1 Before Arrival

7.1.1 When the vessel is berthed, after the inspection of the security checklist by the Safety Inspector, if there is anything pending that has not been resolved by the vessel's crew, the Terminal will not authorize the beginning of operations.

7.1.2 On board repairs and cargo tank washing should be carried out preferably in the anchorage area.

7.1.3 Vessels bound for the Terminal Aquaviário de São Sebastião facilities should indicate their ETA 72 and 48 hours in advance, directly to the respective agent via PPS (Santos Radio) or PTS (São Sebastião Radio). Alteration to or confirmation of a vessel's arrival should be communicated at least 24 hours in advance. When communicating the ETA, it must be specified whether the time is local or GMT.

7.2 Arrival

7.2.1 The port authorities act on instructions from shipping agents regarding arrival and berthing times. Visits are carried out when the vessel is anchored or berthed.

7.2.2 Requests for bunker services should be forwarded to UN-Bunker, the Petrobras department that trades the bunker stored in the Transpetro terminals.

7.2.3 Information from the Terminal to vessels and vice versa is described in Appendix D.

7.3 Berthing

7.3.1 See observations at 6.3.2.

7.3.2 The Terminal Aquaviário de São Sebastião piers do not provide ladders for access to vessels. Access is gained through the vessels gangway ladders, along with an access ramp. If the vessel ladder arrangement does not correspond to the pier dolphins, the Terminal will supply a support craft for access. Disembarked crew must circulate only as far as the vehicle arrival/departure area of the north and south piers, where transportation will be provided to take them to the Terminal exit. From vessel to vehicle and vice versa, crew must circulate inside the security lane painted in yellow on the ground. It is not necessary for crew or visitors to wear PPE inside the security lane.

7.4 Before Cargo Transfer

7.4.1 Electrical insulation of the vessel will be carried out through the loading arms, also electrically insulated, and connected to the Terminal structure.

7.4.2 The resources required to connect the vessel are agreed on during first contact between the vessel and Terminal, as per Appendix D. The vessel must provide the diameter of the ship's manifolds so that the loading arms can be connected. Before operations begin, an onboard representative must accompany the entire arm connection and sealing operation from the beginning, while positioned near the vessel's manifold.

7.4.3 On board measurements/readings are carried out by vessel personnel, accompanied by Terminal representatives and other inspectors. Owned or chartered vessels carrying domestic petroleum to be unloaded at the Terminal de São Sebastião must carry out measurements/readings before berthing, since the presence of Terminal representatives is not necessary. Material used must be suitably earthed and calculation instruments must be explosion proof.

7.4.4 Operations commence only after ship and shore representatives have filled in the initial chart.

7.4.5 The Ship/Shore Safety Check list (ISGOTT Appendix A) is completed by the Safety Inspector and the vessel's representative during initial clearance of the vessel.

7.4.6 The release of thick smoke from vessel funnels while the vessel is berthed is forbidden. Funnel cleaning is forbidden, as is any type of cleaning of the boiler pipes when a vessel is berthed. Precautions must be taken so that sparks do not escape from the funnel. Non-compliance with these regulations will lead to the following sanctions:

→ Immediate interruption of operations
→ Penalties applied by the appropriate authorities
→ Mandatory unberthing from the pier
→ Details of the infraction communicated to the ship owners
→ Fines, demurrage, and any other related expenses will be charged to the vessel.

7.4.7 The express prohibition of small craft alongside or anywhere near vessels berthed or in operations must be strictly observed. Only service vessels belonging to the Terminal or those authorized by the port authorities or by the Terminal may remain near or alongside vessels, provided they satisfy all safety conditions. Non-compliance with this norm will be communicated to the appropriate Port Authority.

7.4.8 Berthed vessels must not move their propellers while connected to loading arms. The turning gear may be used following due notice given to the Terminal operator, but the propeller must turn as slowly as possible so as to ensure absolute safety. Vessels will be held responsible for any damage resulting from such procedures.

7.5 Cargo Transfer

7.5.1 Monitoring of vessel manifold pressures is carried out during cargo transfer at hourly intervals and is recorded by ship/shore representatives.

The Terminal controls internal pressure variables by means of a centralized control supervision system. Flow and accumulated volumes are read at hourly intervals and compared by all parties, using the limit defined in the Operations Monitoring chart, which is handed over and discussed with the vessel representative at the initial meeting. Any alteration to operating conditions must be communicated and documented by all parties. During operations, the closing of any valve, causing counter-pressure in the system, is expressly forbidden.

7.5.2 The Terminal dos not operate with LPG. As a consequence, this item is not applicable.

7.5.3 Vessel ballast and / deballast piping and tanks only must be used for this purpose exclusively, and should be isolated from other piping on board. Ballast water

to be discharged into the sea must be completely free of oil, any oily residue or other substance that could pollute the seawater.

7.5.4 Transpetro's scheduling, which interacts with Petrobras logistics, makes Terminal slop tanks available to vessels. When it is necessary to discharge slop in São Sebastião, the vessel must inform, via its agent, the quantity to be discharged, its composition and origin, as outlined in the Slop Discharge Certificate. The system used by the Terminal for slop discharge is the same as that for petroleum discharge/unloading.

7.5.5 Conventional tank cleaning operations are not usually accepted. But C.O.W, operations are accepted, subject to prior scheduling authorization for vessel laytime purposes.

7.5.6 No repairs or maintenance work of any nature involving a risk of sparks or other means of ignition while the vessel is berthed at the Terminal piers are allowed. In extreme cases, all safety norms must be observed and complied with. Repairs involving pier installations or any restriction to the vessel during its laytime must have prior authorization by the Terminal.

7.5.7 Initial and intermediate inspections, as outlined in ISGOTT Appendix A, will be carried out by the Safety Inspector during vessel operations.

7.5.8 Loading and unloading must be interrupted in any situation of potential danger to the vessel or Terminal. Operations may be temporarily suspended during lightning storms, thunderstorms and/or strong winds.

Terminal operations personnel are authorized to interrupt or suspend operations in case of non- compliance with any of the regulations and norms concerning safety universally accepted and adopted in maritime petroleum transportation.

Vessel captains have the right to interrupt operations if they have reason to believe that onshore operations are not safe, provided pier operators are given advance notice.

7.5.9 In any emergency situation, the Terminal de São Sebastião interrupts operations so that all resources are focused on preventing disaster. Actions to be taken and contacts for each type of emergency are described in the Terminal Aquaviário de São Sebastião Emergency Response Plan (ERP) and the Individual Emergency Plan (IEP), and key telephone numbers are listed in section 9.

7.6 Cargo Measurements/Readings and Documentation

7.6.1 Once operations have terminated, draining of the loading arms and/or hoses used should commence. Terminal operators will arrange the draining of loading arms

and/or hoses used in the pier's closed system. The vessel representative should arrange for draining of the sections on the vessel side.

7.6.2 Final onboard measurements/readings will be carried out by vessel personnel, accompanied by Terminal representatives and other inspectors. The material used should be explosion proof.

The final clearance of the vessel will take place after the comparison of quantities handled within the limits of N-2670, and after completion of the vessel's laytime documentation

7.7 Unberthing and Leaving Port

7.7.1 During unberthing and port departure maneuvers, the channel limits and the hazards outlined in section 5.3 and sub-items must be observed.

7.7.2 The embarkation and disembarkation point for the pilot is usually the same, as described in section 5.3.6, where a launch will be waiting.

7.8 Compliance with the ISPS Code

The terminal has implemented corporate security protection measures applicable to vessels and port installations, following the demands of the International Maritime Organization – IMO, though the adoption of the ISPS (International Ship and Port Facility) Code.

In case of necessity, protection measures can be activated by the vessel through the PFSO – Port Facility Security Officer) or VHF radio.

The terminal normally operates at security level 1.

Further details can be obtained by contacting the PFSO (Port Facility Security Officer) – who is qualified in accordance with IMO requirements: Tel.: (12) 3891-4119/3891-4475.

7.9 Compliance with RFB (Brazilian Revenue Services) norm 1282-2012

All vessels with imported cargo left over after discharge operations or cargo loaded through transshipment should wait anchored for release through the SISCOMEX Carga system operated by Fiel Depositário (Offical Inspection) before continuing their journey.

8

Organization of the Port or Anchorage Area

8.1 Port Control or VTS

8.1.1 This item does not apply to the Terminal Aquaviário de São Sebastião.

8.2 Maritime Authority

8.2.1 The Maritime Authority to which the Terminal is subordinate is the Port Captaincy of São Sebastião.

8.2.2 The Port Captainy/Harbor Master chief officer decides whether the authorities will visit a vessel when at anchor in the port limits or after berthing at the Terminal Aquaviário de São Sebastião pier.

8.2.3 The official port limit is the area of the channel demarcated by parallels 23° 42.0' S and 23° 54.0' S.

8.2.4 The Port Captaincy/Harbor Master is the maritime authority inside the limits of the Port of São Sebastião, and is responsible for deciding on actions to be taken and for penalizing those responsible for any incident within port limits.

8.3 Pilot Services

8.3.1 Pilot services are mandatory for all vessel maneuvers, from the point where the pilot embarks (item 5.3.6).

8.3.2 The Pilot Organization that operates in the Port of São Sebastião is: Praticagem Serviços de Praticagem do Canal e Porto de São Sebastião S/C Ltda. Rua Prefeito Mansueto Pierotti, 474, telephone: (12) 3892-1332 / 3891-0031 / 3891-0033.

8.3.3 In all situations, pilot services are arranged by a shipping agent. In cases of emergency, depending on availability, a pilot will placed on the vessel at the earliest opportunity.

8.4 Tugs and Other Maritime Services

Tug services: The Terminal has 4 Azimutal Tugs. All with capacity above 40 TON of Bollard Pull.

8.4.1 Other relevant maritime services

Barges: These are not available in São Sebastião. Subject to prior notice, they can be deployed from Santos or Rio de Janeiro.

Supplies: Suppliers of maintenance material, paints, spare parts, etc. are available. Vessels should contact their agents in advance.

Bunker: The Terminal has facilities to supply MF 180 cSt and 380 cSt, as well as MGO.

Lubricants: Orders for maritime lubricants should be made through agents at least seven days in advance and are subject to confirmation.

Drinking water: Water can be supplied in unrestricted quantities, at maximum flow of 150 t/h and minimum 91 t/h.

Food provisions: There are companies that specialize in supplying food items. Food and supplies must be supplied by vessels. Food and small items can be supplied inside the Terminal, provided quantities do not exceed 200 kilos. Orders should be placed through a shipping agent.

Power: Supplies are available only on tug piers.

Nautical charts and publications: These are not available in São Sebastião, but can be obtained from Rio de Janeiro through agents if ordered in advance.

Repairs: There are workshops specializing in miscellaneous naval repairs. These can carry out the vast majority of emergency repairs (engines, pumps, metal cutting, piping,

general electrical services etc.) Other specialist services, such as automation systems, electronic equipment and radar can be easily obtained via agents from Santos or Rio de Janeiro. Requests must be made in advance.

Compass compensation: There are technical facilities in the region for this service.

Petroleum products inspection: There are no petroleum inspectors in São Sebastião. However, if necessary, their services can be solicited from Santos or Rio de Janeiro.

Classification Societies/Rating Organizations: There are no representatives in São Sebastião, but they can be requested easily from Rio de Janeiro or Santos.

Consulates: There are no consulate representatives in São Sebastião.

De-ratting: Renewal of expired certificates should be solicited by radio through an agent.

Medical and dental assistance: There are several doctors, dentists, clinics, and hospitals in São Sebastião equipped to offer medical and dental services at any time, provided these are requested by an agent. In emergency cases, serious illness or accidents, first aid can be requested at the Terminal. Laundry: There are good laundry services in São Sebastião. These should be solicited through an agent.

Mail services: The Brazilian Mail Service (Agência Brasileira dos Correios e Telégrafos) has branches in São Sebastião .

Criminal, Fiscal and Maritime Police: There are Civil, Military, Federal and Port Captaincy Police Stations in São Sebastião.

Advances in cash: Available through an agent.

Garbage, waste and waste water: Garbage collection is carried out by specialist firms which collect garbage, waste and detritus from vessels berthed and anchored.

Painting: There are specialist firms that carry out painting and conservation services on vessels. Painting of the hull using wharf ladders or rafts is permitted. However, the vessel captain will be responsible for the work. Rafts for painting the hull and lifeboats cannot be lowered without prior permission from port authorities, which can be obtained through a shipping agent.

Recreational Centers: The city does not offer public recreation centers. There are public leisure areas and sea bathing facilities. The Clube Municipal (operated by City Hall) and the Terminal Aquaviário de São Sebastião (Transpetro) Praia Clube hold events with admission by means of a ticket.

Telecommunications: Vessels bound for São Sebastião must announce their ETA to their agents 72, 48 and 24 hours before arrival through any official coastal radio station

(Rio Radio-PPR, Santos Radio-PPS and São Sebastião Radio-PTS). Communication with agents can be by e-mail. cell phone, or satellite connections. When within VHF range, vessels must contact the Terminal Aquaviário de São Sebastião Pilot Control to receive instructions. The ETA must specify if the arrival time is Local Time or GMT.

8.5 Other Gas Terminals

Not applicable to the Terminal Aquaviário de São Sebastião.

8.6 Other Major Users

Not applicable to the Terminal Aquaviário de São Sebastião.

9

Emergency Planning and Response

9.1 Emergency Contacts

Contacts for emergency situations are set out in the following table.

Organization	Operating Hours	Identification	Telephone (12)	Fax (12)	VHF/UHF	
					Call	Conversation
Port Captaincy Harbor Master	24 hours	DCPSP	3892-3133 3892-1555	3892-3133	16	–
Tugs	24 hours	Sobrare	3891-2206	3891-2206	16	13
Pilots	24 hours	Pilotage Control	3892-1332	3892-1332	16	13
Berth Control Center	24 hours	–	3891-4211 3891-4311	3891-4376 3891-4389	16	14
Terminal Control Center	24 hours	–	3891-4113	3891-4210	–	14
Terminal Aquaviário de São Sebastião Management	07:30h to 16:30h	–	3891-4102	3891-4233	–	–
Fire Department	24 hours	CBMESP	3892-2876 3891-4155	3892-2876	–	–

continue

Organization	Operating Hours	Identification	Telephone (12)	Fax (12)	VHF/UHF	
					Call	Conversation
Civil Defense	24 hours	–	3862-6840	–	–	–
São Sebastião City Hall	08h to 17h	PMSS	3891-2000	3891-2000	–	–
Ibama (Brazilian Environmental Agency)	24 hours	–	3883-7520 3883-9362		–	–
Cetesb (State Environmental Company)	24 hours	–	3862-2159 3832-3816	3862-2159 3832-3816	–	–
Municipal Emergency Hospital Services	24 hours	PSM	3892-1308	3892-3249	–	–

9.2 Environmentally Sensitive Areas

In the Emergency Response Plan (ERP) folder – maps, drawings and annexes – the areas most sensitive to environmental impact are listed on sheets containing maps of environmental sensitivity, showing, according to the area selected, the points subject to the greatest impact when this type of event occurs in the São Sebastião channel.

9.3 General Description of the Organization of Emergency Response Services

Responsibilities regarding the various contingencies listed in the Local Contingency Plan are described in the following table.

Type of incident	Organization Responsible	Other Organizations Involved		
Collision the channel	Port Captaincy	Civil Defense	Transpetro	–
Vessel run ning aground	Port Captaincy	Civil Defense	Transpetro	–
Collision in the berth	Port Captaincy	Transpetro	Civil Defense	–
Vessel Sinking v	Port Captaincy	Civil Defense	Fire Department	–
Fire aboard vessel	Port Captaincy	Fire Department	Civil Defense	Transpetro
Fire in the berth	Port Captaincy	Transpetro	Fire Department	Civil Defense
Pollution	Port Captaincy	Transpetro	Cetesp	Ibama

9.4 Contingency Plans

9.4.1 The Emergency Response Plan (ERP) is Terminal Aquaviário de São Sebastião's plan to respond to emergencies throughout its installations. It is available in all operational areas on notice boards positioned at the entrance to operations and maintenance rooms and administrative buildings. The local SMS Operations (Transpetro Safety, Environment and Health Management) is responsible for carrying out the plan.

9.4.2 Berthed vessels must leave their emergency tow lines fast to the onboard bollards, hanging to the water line during the entire operation by the bow and quarter on the side opposite to the mooring side. Emergency and firefighting equipment must be kept at the ready while the vessel remains berthed. Fire hoses must be extended with their nozzles fore and aft of the manifold, on the berthed side, with a chemical powder extinguisher fore and aft of the manifold, and fire fighting monitors directed towards the manifolds. An adequate quantity of sawdust or equivalent material should be ready for use in case of oil spillage. Supplementary precautions must also be taken, with a view to preventing oil pollution of the seawater. The Terminal Aquaviário de São Sebastião has an Emergency Response Center (ERC) with modern equipment and several facilities for use in accidents involving pollution. Intensive training sessions are held periodically, which equip Terminal employees to act according to the Emergency Response Plan (ERP). Strategically located, the center allows for rapid action in responding to emergencies. It has a stock of containment booms, absorbent booms, oil skimmers and other equipment and material necessary in this situation. Service and support boats, tanker and skimming vessel are docked at the pier in a permanent state of readiness.

9.4.3 The Terminal has a medical post for first aid with a doctor and nurse on duty in the Terminal during office hours, when there is the highest concentration of personnel due to maintenance services and other works. Other cases are sent to the Pronto Socorro Municipal (Municipal Emergency Hospital) in São Sebastião. When an ambulance is deemed necessary, SAMU should be called on 192 or the Fire Department Rescue on 193.

9.5 Public Response and Emergency Resources

In the Port of São Sebastião, only Transpetro, through the Terminal Aquaviário de São Sebastião and other operating units, activated by the Emergency Response Plan (ERP), possesses the resources that can be utilized to respond to events that cause sea pollution. For other emergencies, public organizations offer resources according to their function.

9.5.1 Local Emergency Services

The Fire Department, Civil Defense, Police and Municipal Emergency Hospital in São Sebastião provide the specific resources for their functions and can be called into action according to the table at item 9.1

9.5.2 Mutual Support Plans

The city of São Sebastião does not have an MSP. Local industries participate in the IEP and the APELL program – community alert and preparation for local emergencies – coordinated by the city's Civil Defense.

The following institutions participate in APELL in case of evacuation of the community in emergency situations:

→ Transpetro/Terminal Aquaviário de São Sebastião

→ Fire Department

→ Civil Defense

→ City Hall

→ Municipal Emergency Hospital

→ Cetesb (State Environmental Organization)

→ Military Police

→ Civil Police

→ Local Press

9.6 Responding to Oil and Chemical Products Spillage

The following items describe the resources available to respond to pollution in the areas adjacent to the Terminal.

9.6.1 Terminal Response Capacity

The Terminal's resources for responding to oil spills are set out in the Emergency Response Plan (ERP), which is available in all administrative, operations and maintenance areas in the Terminal Aquaviário de São Sebastião.

9.6.2 Response capacity of the local environmental organization

São Sebastião's environmental organization does not have the resources to respond to an oil spill at sea.

9.6.3 Resources available in Mutual Support Plans of other Terminals

Resources available in other Transpetro Terminals to deal with pollution emergencies in the Terminal environs are listed in the Emergency Response Plan (ERP).

9.6.4 Responding to a medium-sized spill

In case of these events, Transpetro/Petrobras regional resources are solicited. These resources, their readiness and how to call them into action, can be found in the Emergency Response Plan (ERP).

9.6.5 Responding to a large spill

In these events, Transpetro/Petrobras national resources are solicited. These resources, their readiness and how to call them into action are in the Emergency Response Plan (ERP).

9.7 Responding to a Major Incident

The Terminal Aquaviário de São Sebastião's Emergency Response Plan (ERP) lists the actions and those responsible for each type of event that can occur in the Terminal, pipelines and vessels.


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CONTACTS

The following tables show the organization, position, telephone, fax, radio channel/ frequencies.

10.1 Terminal

Location	Contact	Telephone (12)	Fax (12)	VHF/UHF channels	
				Call	Conversation
Berths PP-1 and PP-2	Operator	3891-4211	3891-4376	16	14
Berths PP-3 e PP-4	Operator	3891-4311	3891-4389	16	14
Shift Supervisor	Supervisor	3891-4113	3891-4210	–	Land 01
Security Operations (SMS-Op)	Supervisor	9798-6250	3891-4175	–	Land 02

10.2 Port Services

Location	Contact	Telephone (12)	Fax (12)	VHF/UHF channels	
				Call	Conversation
Port Captain	Duty Officer	3892-3133	3892-3133	16	–
Pilot Association	Agent	3892-1332	3892-1332	16	13
Tugs	Control	3891-2206	3891-2201	16	13

10.3 Selected Shipping Agents and Suppliers

Agencies and suppliers must be consulted through a shipping agent.

10.4 Local Authorities, State and National Agencies

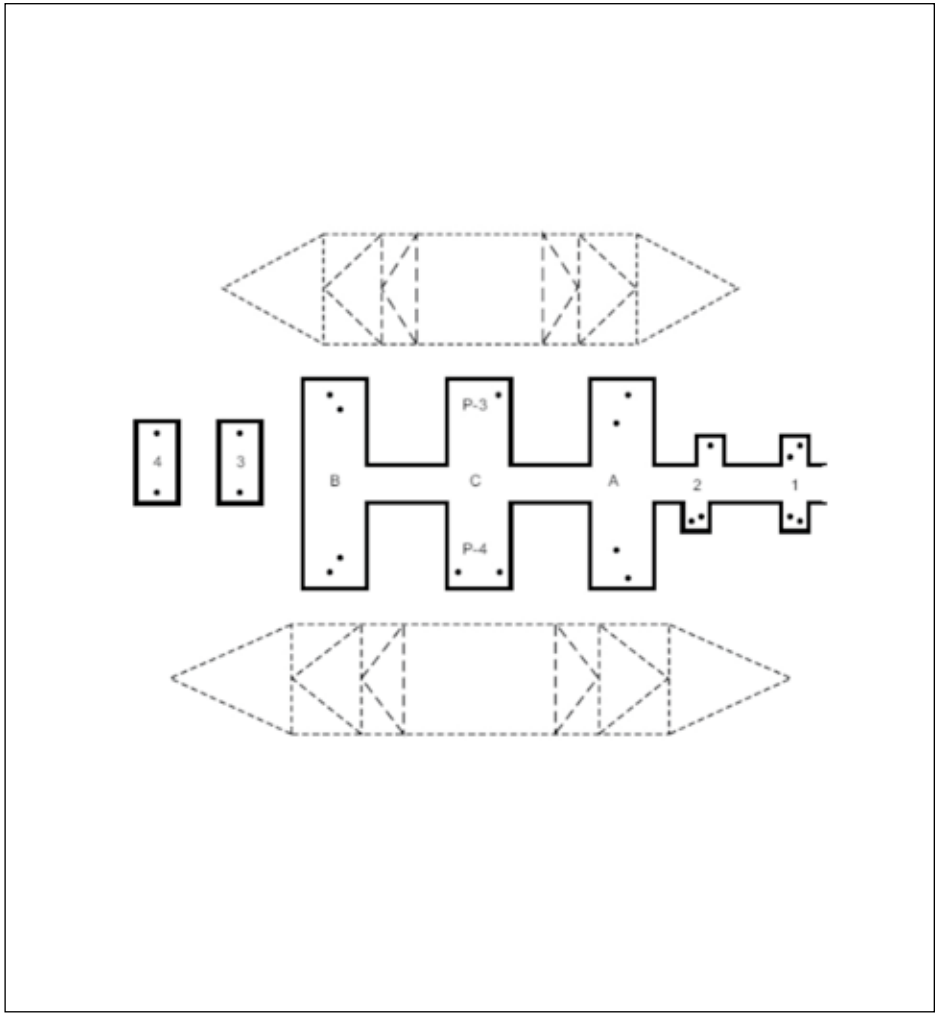
Item 9.1 lists these authorities and their respective contacts.

Appendices

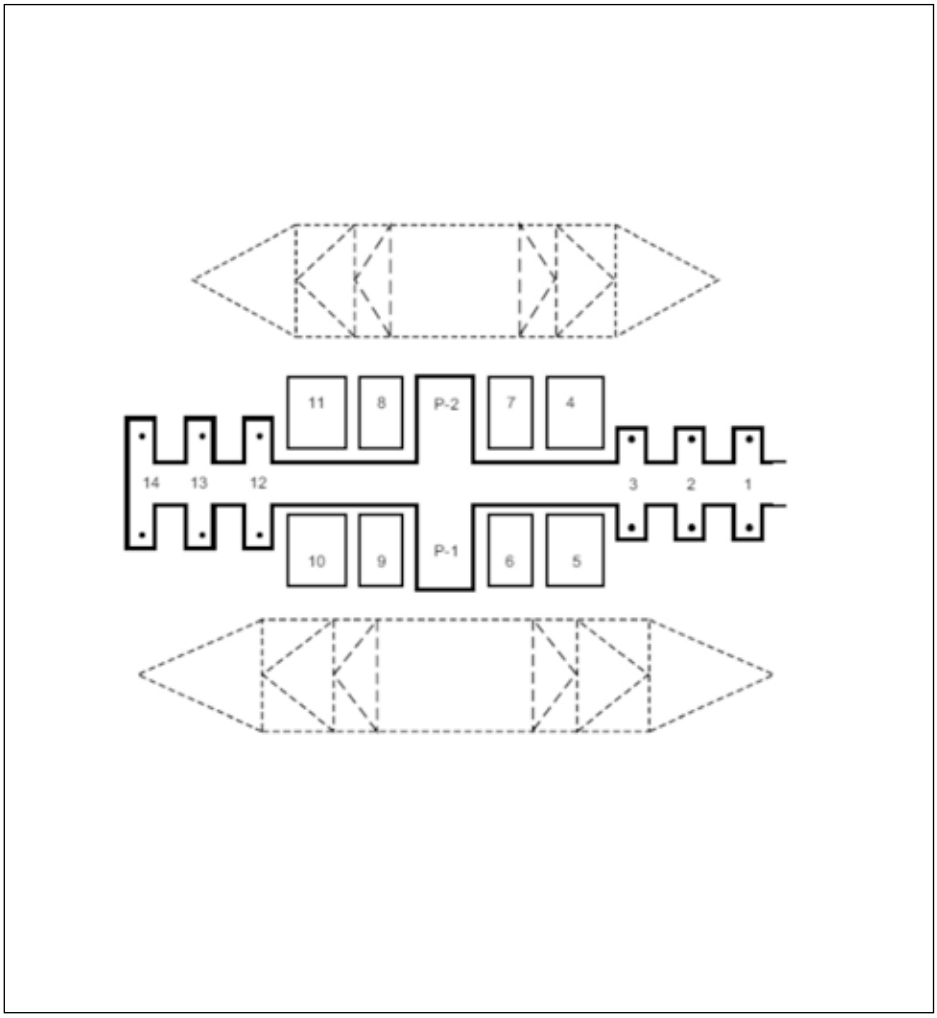
A – Location of the Terminal Aquaviário de São Sebastião Pier

B – Diagram of each berth, showing lengths, barriers/dolphins, location of mooring points and manifolds

B1 - North Pier Vessel mooring scheme

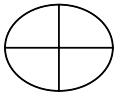
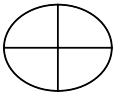
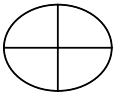
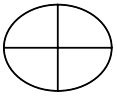


B2 – South Pier vessel mooring scheme

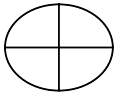
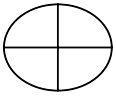
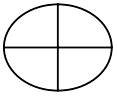


C – Diagram with load connections, dimensions and sizes of flanges

P1

Arm 1	Arm 2	Arm 3	Arm 4	Arm 5	Arm 6
					
08" Bunker	16" Petroleum	16" Petroleum	16" Petroleum	16" Petroleum	08" Bunker

P2

Arm 1	Arm 2	Arm 3	Arm 4	Arm 5
				
08" Bunker	16" Petroleum	16" Petroleum	16" Petroleum	08" Bunker

P3

Arm 1	Arm 2	Arm 3	Arm 4
			
12" Petroleum	12" Petroleum Derivatives	12" Petroleum Derivatives	08" Bunker

P4

Arm 1	Arm 2	Arm 3	Arm 4
			
12" Petroleum	12" Derivatives	08" Bunker	08" Bunker

D – Essential vessel details for the Terminal

Port and Terminal:	
Request for Vessel Information	
Name of Ship:	Estimated Time of Arrival (ETA):
Flag:	Last Port:
Name of Captain:	Next Port:
Ship owners:	Agents:
Does the ship have an inert gas system? Oxygen content:	
Overall length (LOA): Length between perpendiculars: Beam:	Draft at arrival: Maximum draft during transfer: Draft at departure:
Number of engines: Number of propellers:	Transverse thrust: Bow (Nº and power): Stern (Nº and power):
Minimum number of tugs required: Nº and bollard pull:	
Number and size of manifold flanges: Cargo: Ballast: Bunkers:	Distances: Bow to manifold: Side to manifold: Height from manifold to main deck:
Loading schedule (fill in as applicable)	
Naming: Type and quantity: m^3 Type and quantity: m^3	 Type and quantity: m^3 Type and quantity: m^3
Ballast discharge at sea: Quantity: m^3	 Estimated time:
Slop/ballast discharge ashore: Quantity: m^3	 Estimated time:
Discharge Schedule (fill in as applicable)	
Type and quantity: m^3 Type and quantity: m^3 Ballast:	Type and quantity: m^3 Type and quantity: m^3 Volume: m^3 Time:
Fuel supplies required (bunkers)	
Type and quantity: m^3 Type and quantity: m^3	Type and quantity: m^3 Type and quantity: m^3
Additional information (if any):	

Please send a fax or e-mail to the Terminal supervisor.

E – Information to be exchanged before cargo transfer

Information between Vessel and Terminal			
Vessel Name:		Mooring berth:	
Voyage number:		Berthing Date:	
Contractual details			
Nº of pumps on board:			
Volumetric capacity: 98%			m^3
Guaranteed unloading pressure (for unloading operations)			kgf/cm^3
Ballast/deballast capacity when loading/unloading discharging:			
Voyage inf ormation			
Charter type (VCP,TCP,COA, etc.)			
Voyage type (cabotage/long haul):			
Ports or places of origin and destination:			
Has the vessel requested bunker?			
Means of communication between vessel and Termi nal:			
Cargo Information			
Product:	Quantity:	Te mperature:	API:
Slop			
Quantity:	Temperature:		API:
Fluidity:	Origin:		
	Contaminants:		
Ballast			
Dirty ballast:		Segregated Ballast:	
Quantity:	Temperature:	Quantity:	
Operation information			
For unloading discharging:	Will the vessel be doing a special operation (COW, Blanketing, etc.)? Estimated time for special operation: Required pump downtime:		
For loading:	Amount of advance warning for TOP: Flow during TOP period: Quantity of ballast to be discharged: Maximum flow permitted for deballast:		

Are there any restrictions regarding electrostatic properties?	
Are there any restrictions regarding the use of self-closing valves?	
Vessel/ Terminal conditions for loading/ unloading operations per product	
Vessel:	**Terminal:**
Pressure: Flow: Maximum temperature: Minimum temperature:	Pressure: Flow: Maximum temperature: Minimum temperature:
Operation sequence per product	
Quantity to be loaded/unloaded: Tanks origin/destination: Onboard/onshore lines: Loading arms/hoses used: Forecast for commencement/termination of operation:	
Complementary operating and safety information	

F – Ship/Shore Safety Check List

Nome do Navio *Ship's name*	Viagem *Voy*
Terminal *Berth*	Terminal *Porto*
Data *Date of arrival*	Hora *Time of arrival*

PARTE "A" – GRANEL LÍQUIDO EM GERAL – INSPEÇÕES FÍSICAS
PART "A" – BULK LIQUID GENERAL – PHYSICAL CHECKS

Granel Líquido em Geral ***Bulk Liquid General***	**Navio** *Ship*	**Terminal** *Terminal*	**Código** *Code*	**Observações** *Remarks*
1. Existem meios seguros de acesso entre navio e terminal. *There is safe access between the ship and shore.*			R	
2. O navio está amarrado com segurança. *The ship is securely moored.*			R	
3. Os sistemas de comunicação navio/terra estão operativos. *The agreed ship/shore communication system is operative.*			A R	Sistema: *System UHF CH 01:* Sistema reserva: *Back up system VHF CH 16:*
4. Os cabos de reboque de emergência estão corretamente encapelados e posicionados. *Emergency towing-off pennants are correctly rigged and positioned.*			R	
5. As mangueiras e o equipamento de combate a incêndio a bordo estão posicionados e prontos para uso imediato. *The ship's fire hoses and fire-fighting equipment is positioned and ready for immediate use.*		NA	R	
6. O equipamento de combate a incêndio do terminal está posicionado e pronto para uso imediato. *The terminal's fire-fighting equipment is positioned and ready for immediate use.*	NA		R	
7. Os braços/mangotes, redes e manifolds de carga e combustível do navio estão em boas condições e apropriadamente suportados e adequados para os serviços pretendidos. *The ship's cargo and bunker hoses, pipelines and manifolds are in good condition, properly rigged and appropriate for the service intended*.		NA		
8. Os braços/mangotes de carga e combustível do terminal estão em boas condições e apropriadamente suportados e adequados para os serviços pre-tendidos. *The terminal's cargo and bunker hoses or arms are in good condition, properly rigged and appropriate for the service intended.*	NA			
9. O sistema de transferência de carga está suficientemente isolado e drenado para permitir a remoção segura dos flanges cegos antes da conexão. *The cargo transfer system is sufficiently isolated and drained to allow safe removal of blank flanges prior to connection.*				
10. Os embornais e bandejas de contenção estão efetivamente bujonados e as bandejas coletoras de bordo estão em posição e vazias. *Scuppers and save alls on board are effectively plugged and drip trays are in position and empty.*		NA	R	
11. Embornais removidos temporariamente serão monitorados constantemente. *Temporarily removed scupper plugs wil be constantly monitored.*		NA	R	

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PARTE "A" – GRANEL LÍQUIDO EM GERAL – INSPEÇÕES FÍSICAS (continuação)
PART "A" – BULK LIQUID GENERAL – PHYSICAL CHECKS (continuation)

Granel Líquido em Geral ***Bulk Liquid General***	**Navio** *Ship*	**Terminal** *Terminal*	**Código** *Code*	**Observações** *Remarks*
12. Barreiras e tanques de contenção de terra são utilizadas corretamente. *Shore spill containment and sumps are correctly monitored.*	NA		R	
13. As conexões de carga e combustível de bordo que não estão sendo usadas estão devidamente fechadas com flanges cegos e completamente aparafusadas. *The ship's unused cargo and bunker connections are properly secured with blank flanges fully bolted.*		NA		
14. As conexões de carga e combustível de terra que não estão sendo usadas estão devidamente fechadas com flanges cegos e completamente aparafusadas. *The terminal's unused cargo and bunker connections are properly secured with blank flanges fully bolted.*	NA			
15. Todas as tampas dos tanques de carga,lastro e combustível estão fechadas. *All cargo, ballast and bunker tank lids are closed.*		NA		
16. As válvulas de costado e as de fundo, quando não em uso, estão fechadas e visivelmente travadas. *Sea and overboard discharge valves, when not in use, are closed NA and visibly secured.*		NA		
17. Todas as portas externas e demais portas e vigias nas acomodações,paióis e espaços de máquinas estão fechadas. Ventilações da praça de máquinas podem estar abertas. *All external doors, ports and windows in the accommodation, stores and machinery spaces are closed.Engine room vents may be open.*		NA	R	
18. Os planos de emergência contra incêndio do navio estão localizados externamente. *The ship's emergency fire control plans are located externally.*		NA		Local: *Location*:

Se o navio possui ou é requerido a possuir Sistema de Gás Inerte, os seguintes pontos devem ser inspecionados fisicamente.
If the ship is fitted, or is required to be fitted,with an Inert Gas System,the following points should be physically checked.

Sistema de Gás Inerte ***Inert Gas System***	**Navio** *Ship*	**Terminal** *Terminal*	**Código** *Code*	**Observações** *Remarks*
19. Os registradores do analisador fixo do teor de oxigênio e de pressão do SGI estão funcionando. *Fixed IG pressure and oxygen content recorders are working.*		NA	R	
20. Todos os tanques de carga estão com pressão atmosférica positiva e com teor de oxigênio menor ou igual a 8 % por volume. *All cargo tank atmospheres are at positive pressure with oxygen content of 8 % or less by volume.*		NA	PR	

PARTE "B – GRANEL LÍQUIDO EM GERAL – VERIFICAÇÃO VERBAL
PART "B" - BULK LIQUID GENERAL – VERBAL VERIFICATION

Granel Líquido – Geral ***Bulk Liquid – General***	**Navio** *Ship*	**Terminal** *Terminal*	**Código** *Code*	**Observações** *Remarks*
21. O navio está pronto para movimentar-se com seus próprios meios. *The ship is ready to move under its own power.*		NA	PR	
22. Existe efetivo serviço de vigilância e adequada supervisão a bordo e no terminal. *There is an effective deck watch in attendance on board and adequate supervision of operations on the ship and on the terminal.*			R	

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PARTE "B – GRANEL LÍQUIDO EM GERAL – VERIFICAÇÃO VERBAL (continuação)
PART "B" - BULK LIQUID GENERAL – VERBAL VERIFICATION *(continuation)*

Granel Líquido – Geral ***Bulk Liquid – General***	**Navio** *Ship*	**Terminal** *Terminal*	**Código** *Code*	**Observações** *Remarks*
23. Existe pessoal suficiente a bordo e em terra para enfrentar uma emergência. *There are sufficient personnel on board and ashore to deal with an emergency.*			R	
24. Foram estabelecidos procedimentos para as operações de carga, abastecimento e lastro. *The procedures for cargo, bunker and ballast handling have been agreed.*			A R	
25. Um sinal de emergência e um procedimento de parada de emergência a ser utilizado pelo navio e terminal foi bem explicado e entendido. *The emergency signal and shutdown procedure to be used by the ship and shore have been well explained and understood.*			A	
26. As folhas de informação de segurança dos produtos (MSDS) foram fornecidas, quando requerido. *Material safety data sheets (MSDS) for the cargo transfer have been exchanged where requested.*			P R	
27. Os riscos associados a substância tóxicas presentes na carga sendo manuseada foram devidamente identificados e entendidos. *The harzards associated with toxic substances in the cargo being handled have been identified and understood.*				Conteúdo de H2S: *H2S content*: Conteúdo de Benzeno: *Benzene content:*
28. Existe uma conexão internacional navio/terminal. *An International Shore Fire Connection has been provided.*				
29. Está sendo usado o sistema estabelecido de "alívio" do tanque. *The agreed tank venting system will be used.*			A R	Método: *Method:*
30. Os requisitos para operação com tanques fechados foram acordados. *The requirements for closed operations have been agreed.*			R	
31. A operação do sistema de válvulas P/V foi verificada. *The operation of the P/V system has been verified.*		N A		
32. Se a linha de retorno de vapor está conectada, os parâmetros de operação foram acordados. *Where a vapour return line is connected, operating parameters have been agreed.*			A R	
33. Alarmes independentes de nível alto, se instalados, estão operacionais e foram testados. *Independent high level alarms, if fitted,are operational and have been tested.*		N A	A R	
34. Existem meios adequados de isolamento elétrico na conexão navio/terminal. *Adequate electrical insulating means are in place in the ship/shore connection.*	N A		A R	
35. As linhas de terra possuem válvula de não-retorno, ou procedimentos para evitar retorno de carga foram discutidos. *Shore lines are fitted with a non-return valve or procedures to avoid back filling have been discussed.*	N A		A R	
36. Locais de fumo estão identificados e os requisitos para fumo estão sendo observados. *Smoking rooms have been identified and smoking requirements are being observed.*			A R	Locais de fumo designados: *Nominated smoking rooms:*
37. Os requisitos para chama aberta e luzes desprotegidas estão sendo observados. *Naked light regulations are being observed.*			A R	

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PARTE "B – GRANEL LÍQUIDO EM GERAL – VERIFICAÇÃO VERBAL (continuação)
PART "B" - BULK LIQUID GENERAL – VERBAL VERIFICATION *(continuation)*

Granel Líquido – Geral ***Bulk Liquid – General***	**Navio** *Ship*	**Terminal** *Terminal*	**Código** *Code*	**Observações** *Remarks*
38. Os requisitos para telefones fixos, celulares e pager estão sendo observados. *Ship/shore telephones, mobile phones and pager requirements being observed.*			AR	
39. Lanternas e flashlights são de tipo aprovado. *Hand torches (flashlights) are of an approved type.*				
40. Transmissores/receptores VHF/UHF fixos e o AIS estão no modo de alimentação correto ou desligados. *Fixed VHF/UHF transceivers and AIS equipamento are on the correct power mode or switched off.*		NA		
41. Os transceptores portáteis de UHF/VHF são de tipo aprovado. *Portable VHF/UHF transceivers are of an approved type.*				
42. As antenas do transceptor principal do navio estão aterradas e os radares estão desligados. *The ship's main radio transmitter aerials are earthed and radars are switched off .*		NA		
43. Os cabos dos equipamentos elétricos portáteis em áreas perigosas estão desconectados. *Electric cables to portable electrical equipament within the hazardous area are disconnected from power.*				
44. As unidades de ar condicionado que aspiram ar do exterior estão desconectadas. *Window type air conditioning units are disconnected.*		NA		
45. Está sendo mantida pressão positiva no interior das acomodações, e as aspirações de ar que possam permitir a entrada de gases de carga estão fechadas. *Positive pressure is being maintened inside the accommodation, and air conditioning intakes, which may permit the entry of cargo vapours, are closed.*		NA		
46. Foram tomadas medidas para garantir ventilação mecânica suficiente na casa de bombas. *Measures have been taken to ensure sufficient mechanical ventilation in the pump room.*		NA	R	
47. Existe uma saída de emergência prevista. *There is provision for an emergency escape.*				
48. O critério de máximo vento e ondulação do mar para as operações foi acordado. *The maximum wind and swell criteria for operations have been agreed.*			A	Parar carga com: *Stop cargo at:* Desconectar com: *Disconnect at:* Desatracar com: *Unberth at:*
49. Medidas de proteção foram acordadas entre o Oficial de Proteção do navio e o Supervisor de Segurança Portuária, se apropriado. *Security protocols have been agreed between the Ship Security Officer and the Port Facility Security Officer, if appropriate.*			A	
50. Quando apropriado, procedimentos foram acordados para recebimento de nitrogênio fornecido por terra, para inertizar ou purgar tanques de carga, ou para limpeza de linha para o navio. *Where appropriate, procedures have been agreed for receiving nitrogen supplied from shore, either for inerting or purging ship's tanks, or for line cleaning into the ship.*			AP	

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Se o navio possui ou é requerido a possuir Sistema de Gás Inerte, os seguintes pontos devem ser inspecionados fisicamente.

If the ship is fitted, or is required to be fitted,with an Inert Gas System,the following points should be physically checked.

Sistema de Gás Inerte ***Inert Gas System***	**Navio** *Ship*	**Terminal** *Terminal*	**Código** *Code*	**Observações** *Remarks*
51. O SGI está totalmente operacional e em boas condições de funcionamento. *The IGS is fully operational and in good working order.*		NA	P	
52. Os selos do convés estão em boas condições de funcionamento. *Deck seals,or equivalent,are in good working order.*		NA	R	
53. Os níveis de líquido nos pressure/vacuum "breakers" estão corretos. *Liquid levels in pressure/vacuum breakers are correct.*		NA	R	
54. Os analisadores de oxigênio fixos e portáteis estão calibrados e funcionando corretamente. *The fixed and portable oxygen analysers have been calibrated and are working properly.*		NA	R	
55. Todas as válvulas individuais de gás inerte dos tanques (se instaladas) estão corretamente ajustadas e travadas. *All the individual tank IG valves (if fitted) are correctly set and locked.*		NA	R	
56. Todas as pessoas envolvidas nas operações de carga estão informadas que no caso de falha da planta de gás inerte, as operações de descarga devem ser interrompidas e o terminal avisado. *All personnel in charge of cargo operations are aware that, in the case of failure of the inert gas plant, discharge operations should cease, and terminal be advised.*		NA		

Se o navio for equipado com um sistema de Lavagem por Óleo Cru (COW) e tenciona realizar a lavagem, as seguintes questões devem ser respondidas.

If the ship is fitted with a Crude Oil Washing (COW) system, and intends to crude oil wash, the following statements should be addressed.

Sistema de COW ***Crude Oil Washing***	**Navio** *Ship*	**Terminal** *Terminal*	**Código** *Code*	**Observações** *Remarks*
57. A Lista de Verificação de Lavagem COW, antes da chegada, conforme o Manual Aprovado, está devidamente preenchida. *The Pre-Arrival COW check-list, as contained in the approved COW manual, has been satisfactorily completed.*		NA		
58. A lista de Verificação de Lavagem COW para utilização antes, durante e depois da lavagem, conforme o Manual Aprovado, está disponível e sendo utilizada. *The COW check-lists for use before, during and after COW, as contained in the approved COW manual, are available and being used.*		NA	R	

Se o navio está planejando efetuar a limpeza de tanques enquanto estiver atracado, as seguintes questões devem ser respondidas.

If the ship is planning to tank clean alongside, the following statements should be addressed.

Limpeza de Tanque ***Tank Cleaning***	**Navio** *Ship*	**Terminal** *Terminal*	**Código** *Code*	**Observ.** *Remarks*
59. Foram planejadas operações de limpeza dos tanques enquanto o navio estiver atracado no terminal. *Tank cleaning operations are planned during the ship's stay alongside the shore installation.*	Sim/Não* Yes/No*	Sim/Não* Yes/No*		
60. Se "afirmativo" os procedimentos e permissões para a limpeza de tanques foram acordados. *If "yes", the procedures and approvals for tank cleaning have been agreed.*				
61. Permissão para as operações de desgaseificação foram concedidas. *Permission has been granted for gas freeing operations.*	Sim/Não* Yes/No*	Sim/Não* Yes/No*		
62. Foi medido o H2S do produto a bordo? Qual o valor encontrado? O representante do terminal foi informado? *Was H2S of product on board measured? What value was found? Was the terminal representative informed?*	Sim/Não* Yes/No*	Sim/Não* Yes/No*		

* Deletar SIM ou NÃO, como apropriado / *Delete YES or NO as appropriate.*

PARTE "C" – PRODUTOS QUÍMICOS A GRANEL – VERIFICAÇÃO VERBAL
PART "C" – BULK LIQUID CHEMICALS – VERBAL VERIFICATION

Produtos Químicos ***Bulk Liquid Chemicals***	**Navio** *Ship*	**Terminal** *Terminal*	**Código** *Code*	**Observações** *Remarks*
1. As folhas de informações de segurança estão disponíveis com as instruções necessárias ao manuseio seguro da carga. *Material Safety Data Sheets are available giving the necessary data for the safe handling of the cargo.*				
2. Se aplicável, existe um certificado de inibidor do fabricante. *A manufacturer's inhibition certificate,where applicable,has been provided.*			P	
3. Existem roupas e equipamentos de proteção (incluindo aparelhos autônomos de respiração) em quantidade suficiente, prontos para uso imediato e adequados ao produto operado. *Sufficient protective clothing and equipment (including self -contained breathing appara tus) is ready for immediate use and is suitable for the product being handled.*				
4. Medidas preventivas ao contato acidental de pessoas com a carga foram acordadas. *Countermeasures against accidental personal contact with the cargo have been agreed.*				
5. A vazão de carga é compatível com o sistema de fechamento automático, se em uso. *The cargo handling rate is compatible with the automatic shutdown sy stem, if in use.*			A	
6. Os sistemas de medição de carga e alarmes estão ajustados corretamente e em boas condições. *Cargo system gauges and alarms are correctly set and in good order.*				
7. Instrumentos portáteis de detecção de vapor estão disponíveis para os produtos sendo operados. *Portable vapour detection instruments are readily available for the products being handled.*				
8. Foram trocadas informações sobre os meios e procedimentos de combate a incêndio. *Information on fire-fighting media and procedures has been exchanged.*				
9. Os mangotes de transferência são de material adequado e resiste ten à ação das carga sendo movimentadas. *Transfer hoses are of suitable material, resistant to the action of the products being handled.*	NA			
10. A operação de carga/descarga está sendo realizada através de sistema fixo de redes de carga. *Cargo handling is being performed with the permanent installed pipeline system.*			P	
11. Quando apropriado, procedimentos foram acordados para recebimento de nitrogênio fornecido por terra, para inertizar ou purgar tanques de carga, ou para limpeza de linha para o navio. *Where appropriate, procedures have been agreed for receiving nitrogen supplied from shore, either for inerting or purging ship's tanks, or for line cleaning into the ship.*			AP	

PARTE "D" – GASES LIQUEFEITOS A GRANEL – VERIFICAÇÃO VERBAL
PART "D" – BULK LIQUIFIED GASES – VERBAL VERIFICATION

Granel Líquido – Geral ***Bulk Liquid – General***	**Navio** *Ship*	**Terminal** *Terminal*	**Código** *Code*	**Observações** *Remarks*
1. As folhas de informações de segurança estão disponíveis com as instruções necessárias ao manuseio seguro da carga. *Material Safety Data Sheets are available giving the necessary data for the safe handling of the cargo.*				
2. Se aplicável, existe um certificado de inibidor do fabricante. *A manufacturer's inhibition certificate,where applicable, has been provided.*			P	
3. O sistema de borrifo de água está pronto para uso imediato. *The water spray system is ready for immediate use.*				
4. Existem roupas e equipamentos de proteção (incluindo aparelhos autônomos de respiração) em quantidade suficiente, prontos para uso imediato e adequados ao produto operado. *There is sufficient protective clothing and equipment (including selfcontained breathing apparatus) is ready for immediate use and is suitable for the product being handled.*				
5. Porões e espaços entre anteparas estão adequadamente inertizados ou pressurizados com ar seco,como requerido. *Hold and inter-barrier spaces are properly inerted or filled with dry air, as required.*		N A		
6. Todas as válvulas de controle remoto estão em boas condições. *All remote control valves are in good working order.*				
7. As bombas e compressores de carga requeridos para a operação estão em boas condições, e as pressões máximas de trabalho foi acordada entre o navio e o terminal. *The required cargo pumps and compressors are in good order, and the maximum working pressures have been agreed between ship and shore.*			A	
8. A planta de reliquefação ou o equipamento de controle de evaporação estão em boas condições de funcionamento. *Re-liquefaction or boil off control equipment is in good order.*				
9. O equipamento de detecção de gás está ajustado para a carga, calibrado, foi testado e está em boas condições de funcionamento. *The gas detection equipment has been properly set for the cargo, is calibrated, has been tested and inspected and is in good order.*				
10. Os sistemas de medição de carga e alarmes estão ajustados corretamente e em boas condições. *Cargo system gauges and alarms are correctly set and in good order.*				
11. Os sistemas de parada de emergência foram testados e estão funcionando corretamente. *Emergency shutdown systems have been tested and are working properly.*				
12. Navio e terminal informaram um ao outro o tempo de fechamento das válvulas de parada de emergência, válvulas automáticas ou equipamentos similares. *Ship and shore have informed each other of the closing rate of ESD valves, automatics valves or similar devices.*			A	Navio: *Ship*: Terminal: *Shore:*
13. Foram trocadas informações entre o navio e o terminal sobre temperaturas/pressões máximas/mínimas da carga a ser transferida. *Information has been exchanged between ship and shore on the maximum/minimum temperatures/pressures of the cargo to be handled.*			A	

PARTE "D" – GASES LIQUEFEITOS A GRANEL – VERIFICAÇÃO VERBAL (continuação)
PART "D" - BULK LIQUIFIED GASES – VERBAL VERIFICATION (continuation)

Sistema de Gás Inerte *Inert Gas System*	**Navio** *Ship*	**Terminal** *Terminal*	**Código** *Code*	**Observações** *Remarks*
14. Os tanques de carga estão protegidos contra transbordamento inadvertido enquanto toda e qualquer operação de carga estiver em progresso. *Cargo tanks are protected against inadvertent overfilling at all times while any cargo operations are in progress.*		NA		
15. O compartimento dos compressores está devidamente ventilado, o compartimento dos motores elétricos devidamente pressurizado e os alarmes funcionando. *The compressor room is properly ventilated, the electrical motor room is properly pressurised and the alarm system is working.*		NA		
16. As válvulas de alívio dos tanques de carga estão ajustadas corretamente e os ajustes atuais estão claramente afixados e visíveis. (Registrar os ajustes abaixo.) *Cargo tank relief valves are set correctly and actual relief valve settings are clearly and visibly displayed. (Record settings bellow.) Ship and shore have informed each other of the closing rate of ESD valves, automatics valves or similar devices*.				

Tanque nº 1 *Tank nr. 1*		Tanque nº 5 *Tank no. 5*		Tanque nº 9 *Tank no. 9*	
Tanque nº 2 *Tank nr. 2*		Tanque nº 6 *Tank no. 6*		Tanque nº 10 *Tank no. 10*	
Tanque nº 3 *Tank nr. 3*		Tanque nº 7 *Tank no. 7*			
Tanque nº 4 *Tank nr. 4*		Tanque nº 8 *Tank no. 8*			

OBSERVAÇÕES / *REMARKS*

Significado dos Códigos: A presença das letras "**A**", "**P**" ou "**R**" na coluna "**Código**" significa o seguinte:
Coding of Items: *The presence of the letters "**A**", "**P**" or "**R**" in the column entitled "**Code**" indicates the following:*

A ('Acordo'). Indica um acordo ou procedimento que deve ser identificado na coluna "Observações" do Check-List ou comunicado em outro modelo mutuamente aceitável.
A ***('Agreement').*** *This indicate an agreement or procedure that should be identified in the "Remarks" column of the Check-List or communicated in some other mutually acceptable form.*

P ('Permissão'). No caso de resposta negativa aos itens com código 'P", as operações não devem ser conduzidas sem uma permissão escrita da autoridade competente
P ***('Permission').*** *In the case of a negative answer to the statements coded "P", operations should not be conducted without the written permission from the appropriate authority.*

R ('Re-inspeção'). Isso indica itens a serem re-inspecionados em intervalos apropriados, combinado entre as duas partes, em períodos indicados na declaração.
R ***('Re-check').*** *This indicates items to be re-checked at appropriate intervals, as agreed between both parties, at periods stated in the declaration.*

Um tripulante deverá ser mantido nas tomadas de carga durante toda operação.
A crew seaman must stay full time nearby ship's manifold while operating.

Canal de chamada VHF: 16 **Canal de conversa:** 9/14 ***VHF Call's Channel:*** 16 ***Conversation's channel:*** 9/14
Telefones/*Telephones:*

Número dos Lacres /*Seals Numbers:*
Separador de Água e Óleo/*Oil Water Separator:*
ODME/*Oil Discharge Monitoring Equipment:*
Esgoto de Emergência/*Emergency Bilge:*
Tanque Séptico/*Sewage Tank:*
Caixa de Mar/*Sea Chest:*

Navio liberado às/*The vessel is able at:*

Navio *Vessel* Nome/Carimbo *Name/Stamp*	Inspetor de Segurança *Safety Inspector* Nome/Carimbo *Name/Stamp*	Terminal *Loading Master* Nome/Carimbo *Name/Stamp*