

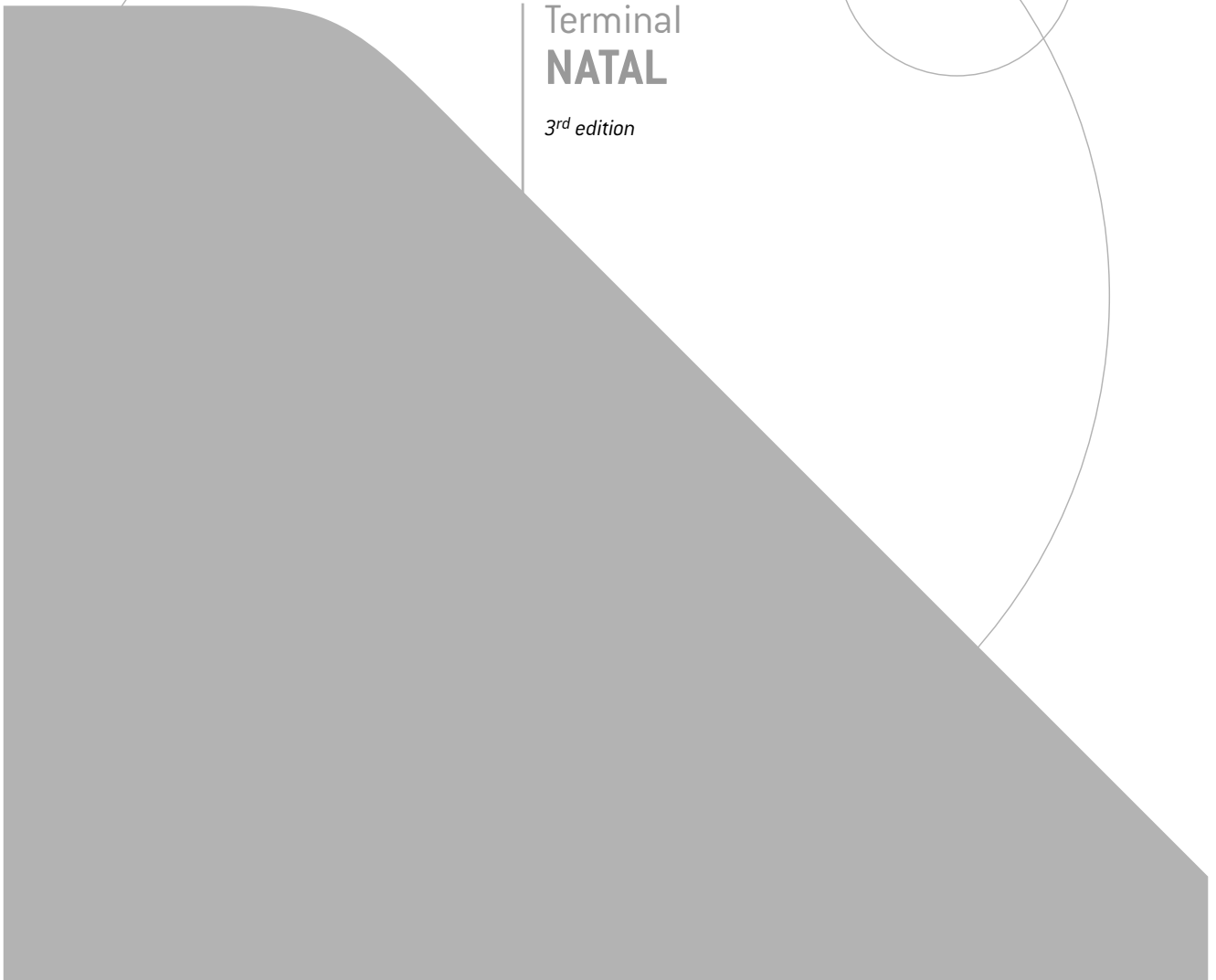


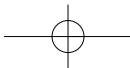
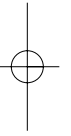
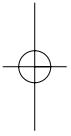
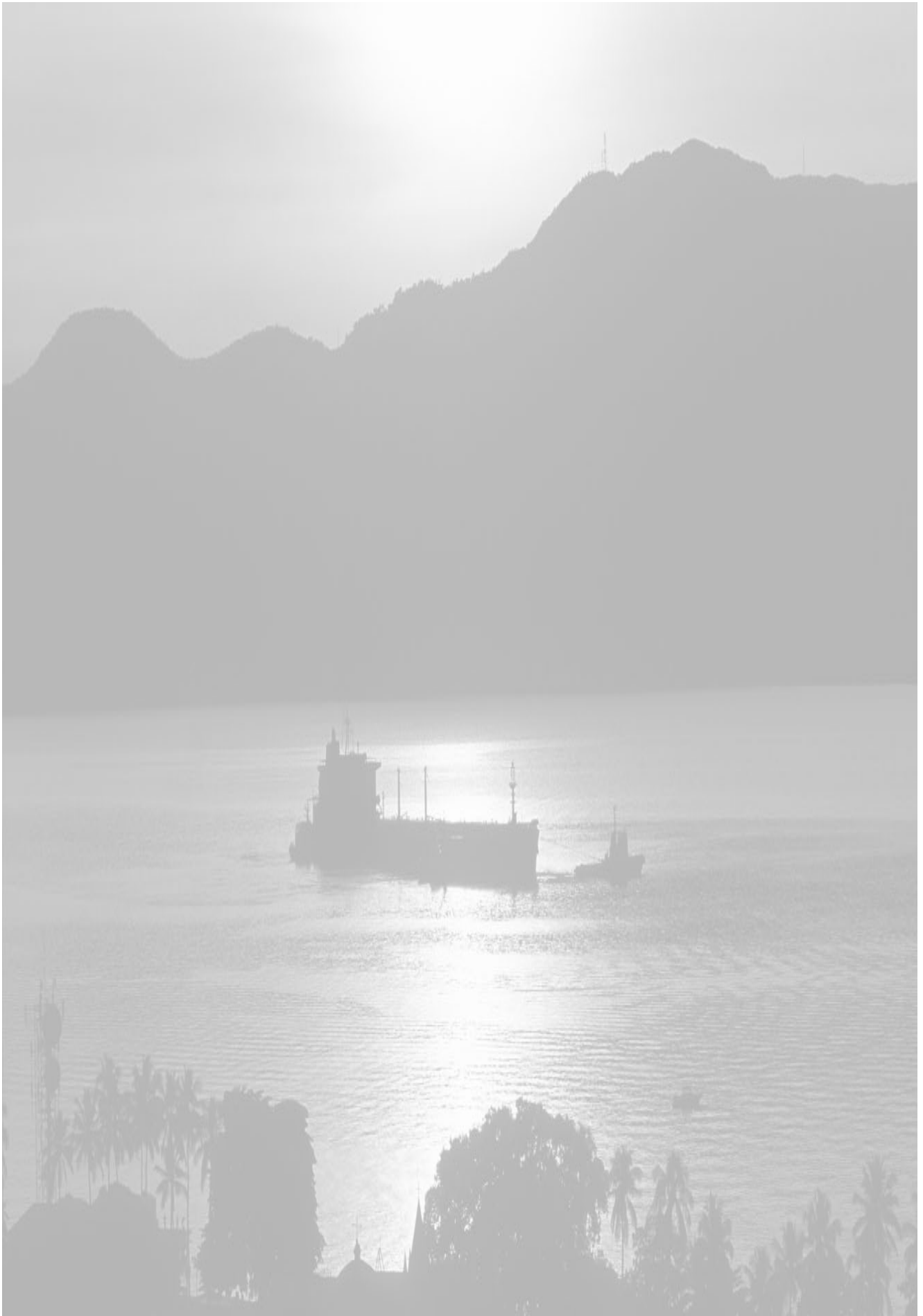
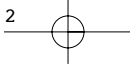
PETROBRAS TRANSPORTE S.A.  
**TRANSPETRO**

# PORT INFORMATION

Terminal  
**NATAL**

*3<sup>rd</sup> edition*





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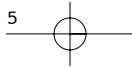
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# INTRODUCTION

The Dunas Pier is located in a private port, owned by the Ministry of Aeronautics – leased to Petrobras Transporte S.A. (Transpetro) –, located at Praça Engenheiro José Gonçalves, s/n, in Natal (RN).

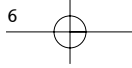
The pier is installed on the right bank of the Potengi River estuary, at 3,000 m from its mouth, 200 m downstream from the Port of Natal docks. Its influence area includes the states of Paraíba, Ceará and Rio Grande do Norte.

The Nautical Chart DHN 802 is recommended as a valuable source of information on the Dunas Pier. The referred chart and other publications about navigation can be found at the local office of the Brazilian Navy, in Natal. The ship agents must be called in advance to obtain this material.

The port operates 24 hours a day, throughout the whole year.

The Terminal can be accessed by road, river and sea transport, as follows:

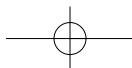
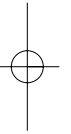
- Road – By the federal highway BR-101;
- River – By the Potengi River, providing navigation conditions for vessels with maximum draft of 10 m (through the port access channel). Only small-size vessels navigate upstream the port, and do not affect the volume of cargoes carried.
- Sea – The bar at the entrance of the Potengi River estuary, is 90 m wide and 10 m deep. The natural access channel has a total extension of 2 km and minimum and maximum widths of 90 and 400 m, respectively, with a depth of 10 m.



**Petrobras Transporte S.A. – Transpetro**

Av. Presidente Vargas, nº 328 / 9º andar – Centro  
ZIP Code: 20091-060 – Rio de Janeiro – RJ – Brazil  
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Fax: (55 21) 3211-9067

The most recent version of this Port Information document can be obtained at  
**[www.transpetro.com.br](http://www.transpetro.com.br)**.



## DEFINITIONS

**Bollard-pull (BP)** – Ship's longitudinal static traction.

**CDA** – Environment Defense Center.

**CRE** – Emergency Response Center.

**Crude oil washing (COW)** – Cargo tank cleaning with crude oil.

**DHN** – Diretoria de Hidrografia e Navegação.

**Dry tide** – Minimum tidal amplitude condition in a given period of the year.

**DWT** – Deadweight Tonnage;

**IMO** – International Maritime Organization.

**Isgott** – International Safety Guide for Oil Tankers and Terminals.

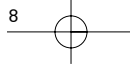
**LCP** – Local Contingency Plan.

**MBL** – Minimum Brake Loading.

**POB** – Pilot aboard.

**Squat effect** – Increase of a ship's draft as a result of an increase in the displacement speed, especially in restricted waters.

**Sygyzy tide** – A condition in which the tide reaches the maximum amplitude at a certain time of the year.

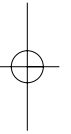
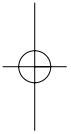


**TA-Natal** – Marine Terminal of Natal.

**UN-Bunker** – Petrobras department that trades the bunker stored in the Transpetro Terminals.

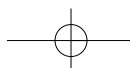
**UTC** – Universal Time Control.

**VTS (Vessel Traffic Service)** – Traffic Service to the Ship



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# DOCUMENTS AND INFORMATION EXCHANGE

The items listed below must be provided by the Terminal or ship, as indicated on the table:

| Information  | Prepared by: |      |      | Delivered to |      |      | Comments                 |
|--|--------------|------|------|--------------|------|------|--------------------------|
|  | Terminal     | Ship | Both | Terminal     | Ship | Both |                          |
| <b>Before Arrival</b>                                |              |      |      |              |      |      |                          |
| Estimated Time of Arrival (ETA) and ship information |              | X    |      | X            |      |      | -                        |
| Essential Terminal information                       | X            |      |      |              | X    |      | -                        |
| <b>Before Cargo or MGO Transfer</b>                  |              |      |      |              |      |      |                          |
| On-board cargo/ballast                               |              | X    |      | X            |      |      | -                        |
| Essential operating information (fill in locally).   | X            |      |      |              | X    |      | -                        |
| Ship/Shore Safety Checklist                          |              |      | X    |              |      | X    | As per Isgott Appendix A |

*continue*

| Information  | Prepared by: |      |      | Delivered to |      |      | Comments   |
|--|--------------|------|------|--------------|------|------|--|
|  | Terminal     | Ship | Both | Terminal     | Ship | Both |  |
| <b>During Cargo or MGO Transfer</b>                  |              |      |      |              |      |      |  |
| Repeat Ship/Shore Safety Checklist                   |              |      | X    |              |      | X    | As per Isgott Appendix A   |
| <b>After Cargo or MGO Transfer, before Departure</b> |              |      |      |              |      |      |  |
| Information required for unberthing the ship         |              |      | X    |              |      | X    | Quantity of fuel and water on-board  |
| <b>After Unberthing, when Leaving Port</b>           |              |      |      |              |      |      |  |
| Information concerning Port departure data           |              | X    |      | X            |      |      | Pilot disembarkation time and port departure time. See printout. Complete table. |

# DESCRIPTION OF THE PIER

## 4.1 Location

Its geographical location is:

|           |                |
|-----------|----------------|
| Latitude  | 05° 46' 24" S  |
| Longitude | 035° 12' 18" W |

The Natal Terminal is located on the Potengi River banks, in the city of Natal, State of Rio Grande do Norte, Northeast seacoast of Brazil.

## 4.2 Approaching the Dunas Pier

The port approaching areas, as well as the anchorage areas, are described in the Nautical Chart DHN 802.

## 4.3 Navigational Aids

Along its section, the channel is demarcated by buoys or guidance lighthouses.

## 4.4 Port Control or VTS

The Port of Natal does not have port control or VTS.

## 4.5 Pilotage

Inside or outside the port area, pilotage is mandatory for all ships heading to the Port of Natal and Dunas Pier. The pilots for the Dunas Pier can be requested via vessel agent, 24 hours before the arrival. They can also be requested via channel 13 or 16 in VHF radio phone call. When the ship is equipped with mobile telephone, the pilot can be requested via Petrobras Branch at Natal (RN), phones (84) 3216-9204 or 9984-4059.

The pilot embarking and disembarking point is at the location: latitude: 05° 44' 48" S and longitude: 035° 10' 30" W.

The ships must receive enough ballast and be properly equipped concerning mooring equipment and respective accessories.

On unberthing, pilotage is requested via estimated time for concluding the operation (supplied by the ship) and time for releasing the cargo.

Each commander is solely responsible for the maneuvers and is in charge of all the information to be provided to the pilot about any peculiarity, specific conditions or existing difficulties, such as: engine or boiler problems, problems or damage to navigation aid instruments, mooring lines or any element that may offer risks for mooring, cable release, loading/discharging the ship.

## 4.6 Tugs and Port Services

The tug services available are arranged by the pilotage for berthing and unberthing. The tugs for berthing are selected based on the vessel size, its estimated time of arrival (ETA informed by the ships) and on the berthing schedule in the Terminal (informed by the Ship's Agency). On unberthing, the tugs are requested via estimated time for concluding the operation supplied by the ship and time for releasing the cargo.

Tugs and towing services targeted to ship berthing, unberthing and evolution maneuvers at Dunas Pier are provided by a specialized company. The Terminal operator assists the ship when it is berthing so as to position it in such a way that the hoses can be connected.

The standards/rules for employing tugs are established by the document "Normas e Procedimentos da Capitania dos Portos do Rio Grande do Norte", which may be acquired in the Harbor Master or directly with the agent.

The ships shall provide towropes of good quality. Otherwise, the ship Captain, at his discretion, will decide on the maneuvering with the tug's equipment.

The communication form between tugs and ships during berthing and unberthing maneuvers is made via VHF radio. This equipment remains permanently turned on in

order to answer any call from ships berthed at the pier, or from the Terminal's operating personnel. In case of failure of the equipment aboard the ship or tug during the maneuver, the ships will use the international whistle signals for this purpose:

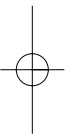
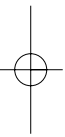
#### **4.7 General Restrictions**

Due to operational restrictions, berthing/unberthing tankers at night is not permitted.

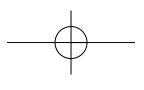
#### **4.8 Maneuver Areas**

The evolution basin starts near the "Cabeça de Negro" rocky ledge (buoys 1 and 2) and ends in the Dunas Terminal area (buoy 11), and has variable width, with maximum depth of 10 m, as informed in the Nautical Chart DHN 802.

Anchoring any vessel in this area is forbidden, except with authorization from the Harbor Master.



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# ENVIRONMENTAL FACTORS

## 5.1 Prevailing Winds

The predominant winds are from east quadrant, and the Dunas Pier is located in the area of formation of trade winds. Winds of any force tend to create small swells, which develop with the wind intensity, duration and speed, especially the swells coming from the north. For more information, refer to the following Internet addresses:

<http://www.dhn.mar.mil.br/chm/meteo/inst/index.htm>

[http://www.inmet.gov.br/prev\\_clima\\_tempo/modelo/mbar/meteogramas.html](http://www.inmet.gov.br/prev_clima_tempo/modelo/mbar/meteogramas.html)

[http://www.cptec.inpe.br/prevnum/Met\\_Eta\\_BR\\_sx6.shtml](http://www.cptec.inpe.br/prevnum/Met_Eta_BR_sx6.shtml)

<http://buoy.ocens.net/wxnav.jsp?region=BN&program=Maps>

<http://br.weather.com/weather/local/BRXX0158?x=3&y=26>

<http://www.intellicast.com/Local/IntlLocalStd.asp?loc=sbnt&seg=LocalWeather&prodgrp=Forecast&product=Forecast&prodnave=none&pid=none>

<http://www.dhn.mar.mil.br/chm/meteo/inst/index.htm>

[http://www.inmet.gov.br/prev\\_clima\\_tempo/modelo/mbar/meteogramas.html](http://www.inmet.gov.br/prev_clima_tempo/modelo/mbar/meteogramas.html)

[http://www.cptec.inpe.br/prevnum/Met\\_Eta\\_BR\\_sx6.shtml](http://www.cptec.inpe.br/prevnum/Met_Eta_BR_sx6.shtml)

<http://buoy.ocens.net/wxnav.jsp?region=BN&program=Maps>

<http://br.weather.com/weather/local/BRXX0158?x=3&y=26>

## 5.2 Tide

Tide at the Dunas Pier is semi-daytime, with the following data registered near the port of Natal:

|                                |       |
|--------------------------------|-------|
| Mean high water springs (MHWS) | 2.4 m |
| Mean high water neaps (MHWN)   | 1.9 m |
| Mean low water springs (MLWS)  | 0.2 m |
| Mean low water neaps (MLWN)    | 0.8 m |

The tides change phase and amplitude along the access channel. The tides along the initial channel section, buoys No. 1 and 2, occur 75 minutes before, and with amplitude around 60% of those detected in the Dunas Pier. Slack water is near 69% of the amplitude for the same tide.

## 5.3 Rainfall

Typical rainfall occurrences and extreme quantities are expected. Rainfall types are rain, hail or snow, where this is relevant. Seasons or months where the extreme conditions will probably occur.

## 5.4 Sea currents

Due to the coast configuration, the prevailing current is the tide current, whose direction is South during floods and north during ebbs.

## 5.5 Sea conditions

Waves on the anchoring areas result from the predominant wind forces, as well as from its direction and duration.

## 5.6 Weather conditions

The weather conditions at the Dunas Pier and adjacent areas are good. There is constant rain during the winter.



# DESCRIPTION OF THE TERMINAL

## 6.1 Mooring berth:

The Dunas Pier has a signaled access channel (the same aimed for the Port of Natal), with extension of 1,500 m, mean width of 300 m and mean depth of 10 m.

|                         |   |
|-------------------------|---|
| <b>Existing Berth</b>   | <p>Dunas Pier – 1 Berthing Place<br/> <b>Berth 1</b> – Bulk Liquids – Oil By-Products and alcohol<br/> <b>Depth:</b> 10 m<br/> <b>Maximum draft:</b> 9 m<br/> <b>Maximum length:</b> 190 m<br/> <b>Maximum size:</b> 30,000 DWT</p> |
| <b>Loading Arms (*)</b> | 4 x 8" hoses for products (3 for light and 1 for alcohol)   |

(\*) Flexible hoses.

At the Dunas Pier, the following berthing and unberthing restrictions are determined by the port authority:

| Location   | Size                        | Berthing            | Unberthing          |
|------------|-----------------------------|---------------------|---------------------|
| Dunas Pier | Up to 10,000 DWT            | At anytime          | At anytime          |
|            | 10,000 DWT<br>to 30,000 DWT | Only at<br>daylight | Only at<br>daylight |

## 6.2 Storage

### 6.2.1 Transpetro Storage

| Tank     | Product   | Capacity<br>(m <sup>3</sup> ) | Total Storage by Product at TA-Natal |                    |                                 |
|----------|-----------|-------------------------------|--------------------------------------|--------------------|---------------------------------|
|          |           |                               | Product                              | Number<br>of tanks | Total Cap.<br>(m <sup>3</sup> ) |
| 11-44601 | Alcohol H | 4,682                         |                                      |                    |                                 |
| 11-44602 | QAV-1     | 4,794                         | Alcohol                              | 1                  | 4,682                           |
| 143004   | Diesel    | 8,364                         | Diesel                               | 2                  | 16,728                          |
| 143003   | Diesel    | 8,364                         | QAV-1                                | 1                  | 4,794                           |

### 6.2.2 Total Storage at Natal (including distribution companies)

| Product  | Company    | Storage<br>(m <sup>3</sup> ) | Total  |
|----------|------------|------------------------------|--------|
| Alcohol  | Transpetro | 4,682                        | 6,906  |
|          | BR         | 2,224                        |        |
| Diesel   | Transpetro | 16,728                       | 2,726  |
|          | BR         | 10,998                       |        |
| Gasoline | BR         | 15,962                       | 15,962 |
| QAV-1    | BR         | 2,600                        | 7,394  |
|          | Transpetro | 4,794                        |        |

### 6.2.3 Pipelines for ship x Terminal transfer (operational flows)

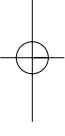
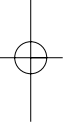
| Product  | Origin     | Destination                       | DN<br>(in) | Extension<br>km) | Flow<br>(m <sup>3</sup> /h) |
|----------|------------|-----------------------------------|------------|------------------|-----------------------------|
| Gasoline | Dunas Pier | Storage Distribution<br>Companies | 10"        | 0,85             | 980                         |
| Diesel   | Dunas Pier | Storage Distribution<br>Companies | 10"        | 0,85             | 760                         |
| QAV-1    | Dunas Pier | Storage Distribution<br>Companies | 10"        | 0,85             | 560                         |
| Water    | Dunas Pier | Storage                           | 6"         | 0,85             | 100                         |
| Alcohol  | Dunas Pier | Storage                           | 10"        | 0,85             | 200                         |

Ship loading operations with light by-products are not performed.

### 6.2.4 Pumping facilities (truck loading/discharging system)

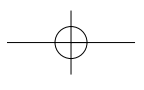
| Product | Operation                | Flow<br>(m <sup>3</sup> /h)             | Road Platform |                |
|---------|--------------------------|---|---------------|----------------|
|         |                          |   | Nº of Bays    | Current Status |
| Alcohol | Cargo                    | 100                                     | 02            | In operation   |
| Alcohol | Discharge <sup>(1)</sup> | 120                                     | 04            | In operation   |
| Light   | Cargo                    | Operation Performed by BR-Distribuidora |               |                |
| Light   | Discharge <sup>(2)</sup> | 120                                     | 04            | In operation   |

- (1) Discharge into two underground tanks, with capacity of 20m<sup>3</sup> each, interconnected to the storage tanks.
- (2) Diesel discharge points, interconnected in two underground tanks, with capacity of 20m<sup>3</sup> each, interconnected to the storage tanks.



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# PROCEDURES

## 7.1 Before Arrival

The TA-Natal uses electrical insulation joints in the 10" to 8" reduction flange, and new graphite paper joints in the hose connections to the ship. The hoses with hydrostatic, vacuum and discontinuity tests within the validity term, and #150 class joints.

The resources required for the connection are established in the first contact between the ship and the Terminal, during initial release. The ship must provide the loading manifold diameters to enable the hose connections. After connecting the hoses, they will be tested for tightness, using the static terminal column pressure of the Terminal for this purpose.

The operation can only start after the initial letter has been filled in by onshore and onboard representatives.

The Ship/Shore Safety Checklist. (Isgott, Appendix A) is checked and filled out by the operator during the initial release of the vessel.

The prohibition of non-authorized small boats remaining alongside or near berthed ships shall be strictly observed. Only vessels authorized by the Terminal are permitted to remain in the vicinity or alongside, provided that they meet all safety conditions. The violation of this rule shall be communicated to the competent authority.

## 7.2 Arrival

The ships heading to the TA-Natal facilities must indicate the Estimated Time of Arrival (ETA) 48 or 72 hours in advance, directly to the respective agent, via Rede Nacional de Estações Costeiras – RENEK (National Network of Coast Stations), with priority and in the frequencies below:

**No.1** – PPB (Belém) 8, 12 and 16 MHz

**No.2** – PPO (Olinda) 8, 12 and 16 MHz

**No.3** – PPR (Rio de Janeiro) 8, 12, 16 and 22 MHz.

Change to or confirmation of the ship's arrival shall be communicated at least 24 hours in advance. The ETA information must specify whether the time mentioned is local or GMT.

The port authorities are brought into play by the ships' agents according to the arrival and berthing schedule. Usually, the visit is made after berthing.

The information from the Terminal to ship and vice-versa are detailed during the initial release.

## 7.3 Berthing

The mooring to be effectively performed for each ship must be considered as satisfactory by the Captain, Pilot and Terminal.

The mooring lines must be looked after constantly so that the ship always remains berthed.

All the lines must be kept under adequate tension during the operation, and winches with their brakes on. Using automatic tensioning winches is not permitted.

All the mooring lines shall be of the same type, gauge and material (fiber or wire); whenever possible, they must have the same length, and mixing mooring lines is not permitted.

The mooring lines must be sufficiently long to reach the more distant dolphins or bollards.

The mooring lines must be arranged as symmetrically as possible in relation to the middle of the ship.

The breasts must be deployed as perpendicularly as possible to the longitudinal axis of the ship, and passed as much as possible forward and aft.

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

The maximum tension applied to the cables must be 55% of its MBL.

When tails are used on the wire lines, the tails shall be of the same type, with gauge 25% greater than the minimum breaking load of the wire, same material and length.

The horizontal angle of bow and stern lines relative to a breast perpendicular to the ship's longitudinal axis must not exceed 45°.

The approaching, berthing and unberthing maneuvers must be performed on low speed, preferably against the current.

We recommend caution when passing the mooring lines from the ship stern to the mooring boats, so as to prevent accidents with the ship and the mooring vessel propellers.

For mooring that is suggested taking the ship's DWT into account, the recommendations are described below:

- The use of automatic stress winch is not permitted;
- The mooring recommended take into account that the ship cables and winches are well preserved;
- Extra care must be taken with breasts and spring lines in the period from 1.5 to 4.5 hours of flood and low tides. This must be made especially 1,5 hour after flood tide, when the largest falling currents start.

If the ship does not have enough number of cables, or the cables are not preferably made of steel at all, or the ship's cables and winches are in poor conditions, or the crew is in no condition to remain moored according to the recommendations, additional measures will be adopted by the Terminal Operations area. These measures are:

- Stop the loading operations;
- Warning, in writing, to the Captain;
- Keep tugs in stand-by;
- Keep tugs alongside the ship;
- Keep pilot aboard; and
- Unberth the ship.

The costs and time resulting from these additional safety measures will be the sole responsibility of the ship's Captain/Owner.

While berthed, the ships' engines must remain on stand-by, ready for startup. Any repairs interfering with this condition will only be carried out after authorization from the Terminal administration. In principle, no repair task will be permitted as long as the ship remains berthed. Authorization will be given only in extreme cases, after all safety

precautions have been taken. Any expenses resulting from the safety precautions will be for account of the commander/owner.

Petrobras will not be responsible for cleaning the deck.

The loading plan and loading Sequence must be presented to the terminal's operator soon after berthing, as well as the loading operation control, containing the stresses and drafts for each passage.

Onboard repairs (especially weld repairs) will not be allowed on the deck or surrounding areas, when they may impair the loading operation.

#### **7.4 Before Transferring the Cargo**

One on-board representative must accompany the entire operation, and must be close to the ship's loading manifold.

The terminal will put one inspector onboard the ship to carry out a visual inspection on the deck and around the vessel.

The onboard measurements will be carried out by the ship's personnel and inspected by the terminal representatives or other inspectors. The material used must be duly grounded, and the measuring instruments must be explosion-proof.

It is forbidden to carry out steam cleaning or to clean boiler piping while the ship is berthed. Precautions for preventing the escape of sparks through the smokestack must be taken. The non-compliance with this regulation will result in one or more of the sanctions below:

- Immediate interruption of the operations;
- Penalties being applied by the competent authorities;
- Ship will be obliged to deberth from the pier;
- Ship owners will be informed about the infraction;
- The ship being held responsible for the fines applied, downtime and all other related expenses resulting from this fact.

The berthed ship should not start their propeller(s) while connected to the hoses. The jacking gear may be used, once the terminal operator has been duly notified, however, the propeller must be turned slowly in order to ensure absolute safety. Ships will be held responsible for any damages resulting from these procedures.



## 7.5 Cargo Transfer

The monitoring of pressures during cargo transfer is recorded by the onboard and onshore representatives at the ship's manifold, hour by hour. The Terminal controls the internal pressure variables by means of a centralized control supervision system. The flow rates on both sides of the operation are measured hour by hour, and compared between the parties, and according to the system used, there will be a limiting parameter for operational control. Any changes in the operating conditions must be communicated and documented between the parties. It is expressly forbidden to close valves that may cause counter-pressure in the system during the operation.

- Check communication with the ship in order not to start the cargo transfer operation without providing perfect conditions;
- Check the whole alignment before starting the operation;
- Follow full time the line of hoses connected to the ship, during operation;
- Negotiate the emergency stop with the ship;
- Track the volume moved at both ends of the pipeline;
- Perform preventive maintenance of lines, tanks and accessories;
- In case of any defect in the equipment and accessories, arrange for immediate corrective maintenance; and
- Do not use inadequate loops, rope or steel cables will not be used for lifting the hoses.

Ballast and deballast pipes and tanks must be designated for this purpose only, and remain isolated from other pipes aboard. The water ballast to be discharged into the sea shall be totally free of oil, any oily residues or other substances that may pollute the seawater.

TA-Natal does not have slop discharge system.

Usually, the conventional tank cleaning operation is not accepted. However, COW operation is permitted, depending on prior authorization from the schedule as regards ship laytime at the port, and from the Terminal supervisor for operational safety purposes.

No repairs or maintenance work involving a risk of sparks or other forms of ignition can be carried out while the ship is berthed at Dunas Pier. In extreme cases, all the safety rules shall be complied with and fulfilled. Repairs involving the pier facilities, or that imply any restriction on the ship during laytime, must have the prior authorization of the Terminal.

Intermediate inspections, according to Isgott's Appendix A, will be performed by the operator during the ship operation, at every 6 (six) hours, and registered in RDO.

Loading or discharging must be interrupted in any situation that might offer risk, either to the ship or the Terminal.

The operations may be temporarily suspended during lightning storms, thunderstorms and/or squalls.

The operating personnel at the Terminal are authorized to interrupt/suspend the operation in case of non compliance with any safety-related rules and standards globally accepted and adopted in the maritime transportation of oil.

The ship's commander is entitled to interrupt the operation when there are reasons to believe that the activities ashore are not safe, provided he notifies the pier operators in advance.

In any emergency situation, the TA-NATAL will interrupt the operations in progress so that all available resources are focused on mitigating the disaster. The actions and contacts for every type of emergency are described in the management's Local Contingency Plan (LCP), and the key phone numbers are listed in the Annex 3.

## 7.6 Compliance with the ISPS Code

Natal Terminal has implemented corporate safety protection measures applicable to ships and port facilities, in compliance with the requirements of the International Maritime Organization (IMO), by adopting the ISPS (International Ships and Port Facilities) code.

When required, the ship may bring these protection measures into play, via the Port Facility Security Officer (PFSO), channel 13.

Natal Terminal usually operates at safety level 01. For more details, the Port Facility Security Officer at the Terminal may be contacted, and he is duly qualified according to the requirements stipulated by the IMO:

Phone: (55 84) 3216-9219

# PORT ORGANIZATION

## 8.1 Port Control or VTS

The pier is protected by a fence 2.10 m tall, constructed in concrete and wire screens (5 cm x 5 cm), with a 40 cm extension of barbwire, at an angle of 45°.

The access control for the pier is made by a security guard and a doorkeeper assistant, this one installed in a security cabin at the entrance, where there are two adjacent access gates, one for people and another for vehicles.

The security services at the Terminal are performed by a specialized company, according to rules established in a specific contract, and including two security guards: One for the day shift and another for the night shift. In addition to these professionals, there is a doorkeeper assistant, who is on duty at the Terminal entrance gate, during the day shift, and that also participates of the security scheme for the facilities, and allocated in the Security Unit (US).

The specific tasks for the US members are described in the Security Plan annexes.

The Terminal will provide an Automation and Control Central Station, in a secure place, which will perform the tasks below:

- Surveillance via Closed TV Circuit (CFTV);
- Monitoring the internal/external communications related to the Terminal security;

- Monitoring the existing sensors at the Terminal;
- Managing the access control for people and vehicles; and
- Coordinating actions aimed at the Terminal security.

In case of and eventual actual threat to the Terminal, the SSP will protect the pier's control room and assume the tasks listed above.

The operation of this equipment will be under the responsibility of the Transpetro employee, who will fulfill the specific technical rules, prepared by the company in charge of the installation and maintenance of active equipment.

In a general way, the system integrates the current CFTV cameras located in the internal Terminal area, intrusion detectors at the restricted areas and night lighting system.

In addition to these security measures, all the security guards and a number of employees have an internal walky-talky-type communications system (intrinsically secure) and exclusive telephone sets (only for the operator and security guard). This equipment is used in emergency calls to local public security bodies.

The Terminal has a siren, which shall be activated by one of the security guards, or any other employee, in case of intrusion.

The lighting system for the internal streets and the Pier surroundings shall be turned on 15 minutes before the expected sunset time.

In case of power outage, the emergency generator will be automatically activated, thus keeping the whole surveillance system in operation.

The US members also have portable radios for their communications, in addition to the internal telephone sets. There are external telephone lines available in the security cabin.

The communications with public bodies, during emergency situations, shall be made by using the external telephone lines.

## 8.2 Maritime Authority

The Terminal is subordinated to the Harbor Master. Any information must be requested by the communications means, as defined in the sub-item 10.2.

### 8.3 Pilotage

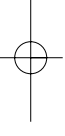
The pilotage is mandatory for all ship maneuvers from the pilot's embarkation point.

Regardless of nationality, type of vessel and destinations, the minimum sizes for which the pilotage service becomes mandatory is from 2,000 DWT.

Associação dos Práticos do Rio Grande do Norte – Rua Esplanada Silva Jardim, 1 –  
Ribeira – Natal – RN – Phone: (55 84) 3222-1613 and Phone/Fax: (55 84) 3211-8483.

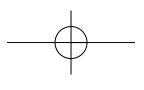
### 8.4 Tugs and other Maritime Services

| Name  | Agency/Owner | Propulsion | Bollard Pull |
|-------|--------------|------------|--------------|
| Walsa | Saveiros C.  | Static     | 11.32        |



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# EMERGENCY AND COMBAT PLANNING

## 9.1 Emergency Contacts

| Organization                               | Operating Times    | Identification Acronym | Telephone [55 84] | Fax [55 84] | Cell phone | VHF/UHF |              |
|--|--------------------|------------------------|-------------------|-------------|------------|---------|--------------|
|  |                    |                        |                   |             |            | Call    | Conversation |
| Harbor Master                              | 24 hours           | CPMA                   | 3201-9630         | -           | -          | 16      | -            |
| Tugs                                       | 24 hours           | -                      | 3201-7634         | -           | -          | 16      | -            |
| Pilots                                     | 24 hours           | -                      | 3222-1613         | -           | -          | 16      | -            |
| Operations TA-Natal                        | 7:30 pm to 4:30 pm | TA-Natal               | 3216-9209         | 3216-9209   | -          |         | 13           |
| Supervision at TA-Natal                    | 7:30 pm to 4:30 pm | TA-Natal               | 3216-9224         | 3216-9209   | -          | -       | -            |
| Fire Department                            | 24 hours           | CBM                    | 193               | -           | -          | -       | -            |
| Receita Federal (Internal Revenue Service) | 8 a.m. to 5 p.m.   | PRF                    | 3220-2297         | -           | -          | -       | -            |
| Military Police                            | 24 hours           | PM                     | 190               | -           | 190        | -       | -            |
| Civil Defense                              | 24 hours           | -                      | 3232-1769         | 3232-1762   | 193        | -       | -            |
| Natal City Administration                  | 8 a.m. to 5 p.m.   | -                      | 3232-8718         | 3232-8737   | -          | -       | -            |
| Ibama                                      | 24 hours           | -                      | 3201-4230         | 3201-4231   | -          | -       | -            |

## 9.2 Environmentally Sensitive Areas

On the LCP (Maps, Drawings and Annexes), the areas most sensitive to an environmental impact are described on sheets that contain environmental sensitivity maps, highlighting, according to the area selected, the points subjected to greater impact when this type of event occurs at the Natal Bay.

## 9.3 General Description of the Emergency Combat Organization

### Incidents within the Dunas Pier/TA-NE Terminal/Natal area

| Incident type            | Organization in Charge | Other Organizations Involved |                      |               |               |
|--------------------------|------------------------|------------------------------|----------------------|---------------|---------------|
|                          |                        | Civil Defense                | Transpetro           | –             | –             |
| Collision on the channel | Harbor Master          | Civil Defense                | Transpetro           | –             | –             |
| Vessel running aground   | Harbor Master          | Civil Defense                | Transpetro           | –             | –             |
| Collision at the berth   | Harbor Master          | Transpetro                   | Civil Defense        | –             | –             |
| Vessel sinking           | Harbor Master          | Civil Defense                | Fire Department      | Transpetro    | –             |
| Fire aboard              | Ship                   | Transpetro                   | Fire Department      | Civil Defense | Harbor Master |
| Fire in the berth        | Transpetro             | Fire Department              | Civil Defense        | Harbor Master | –             |
| Pollution                | Transpetro or ship     | Harbor Master                | Transpetro SMS-Natal | Ibama         | –             |

## 9.4 Emergency Plans

The LCP (Local Contingency Plan) is the TA-Natal plan for combating emergency situations at all its facilities. It is available in all the operational areas, affixed on notice boards located at the entrance to the operation rooms, maintenance and administrative buildings. The local SMS (health, environment and safety activity) is responsible for its updating.

Berthed ships must maintain their emergency towlines passed through the onboard bollards and hanging down to the waterline during the entire operation, by the bow and quarter on the side opposite to the mooring side.

The emergency and fire fighting equipment must be kept ready for use while the ship is berthed. The operational fire hoses must be extended, one forward and one aft on the load manifolds.



We recommend that a pollution fighting kit (sawdust, rags, shovels, buckets, squeegees, transfer pumps, etc.) is kept ready to be used immediately in case of oil spillage. All the supplementary precautions must be adopted aimed at preventing sea-water pollution by oil.

TA-Natal has an Emergency Response Center (CRE) with modern equipment and several facilities to be used in case of accidental pollution. Periodically, intensive training sessions are carried out so as to prepare the Terminal employees to act in compliance with the LCP. Located at a strategic point, it can be quickly ready for action to combat emergencies. Floating booms, oil collectors and other equipment and materials necessary to works are stored in its shed. Service and supporting boats, tanker and collecting vessels remain berthed at the tugs' pier, in a permanent state of readiness.

A list of CRE materials is shown below:

| Description  | Quantity |
|--|----------|
| Floating booms   | 1,500 m  |
| Absorbing barriers   | 2,100 m  |
| Absorbing roll   | 2 un.    |
| Absorbing powder – Sphag Sorb                                  | 53 sacks |
| Yellow plastic roll  | 1 roll   |
| Wooden squeegee  | 28 un.   |
| Large-Size Broom   | 5 un.    |
| Shovel   | 21 un.   |
| Degreaser  | 37 un.   |
| Shovel handle  | 8 un.    |
| Aluminum pail  | 8 un.    |
| Life jacket  | 8 un.    |
| Tennis shoes   | 48 pairs |
| Safety shoes   | 49 pairs |
| Tobar  | 27 Un.   |
| Aluminum boat – Series 104071/com.<br>6 m/40 HP Mercury engine | 1 un.    |
| Wheelbarrow  | 3 un.    |
| T-Shirts   | 80 un    |
| Rubber boot  | 10 pairs |
| Big Beg bag  | 105 un   |
| Motor pump Spake 75C/complete assembly                         | 1 un.    |

*continue*

| Description  | Quantity |
|--|----------|
| Motor pump Wacker /completo assembly – type 1B20-7 | 1 un.    |
| Blower (gasoline-powered)                          | 1 un.    |
| Life buoy  | 2 un.    |
| Hoe  | 12 un.   |
| Large Knife  | 5 un.    |
| Skim valospe                                       | 1 un.    |
| Hydraulic unit                                     | 1 un.    |
| Inflatable tank                                    | 1 un.    |
| Catamaran  | 1 un.    |
| Towbar   | 24 un.   |
| Cones  | 10 un.   |
| Floater  | 8 un.    |
| Nylon ropes  | 11 un.   |
| Paddle   | 1 un.    |
| Styrofoam balls                                    | 7 un.    |
| Skim Pack  | 2 un.    |
| Rake   | 3 un.    |
| Fork   | 3 un.    |
| Long Rake  | 3 un.    |

The Terminal does not have ambulance; but, for emergency situations, Samur can be called into action by the telephone 192.

## 9.5 Public Resources for Combating Emergencies

At the Port of Natal, only Transpetro, via TA-Nataland other operational units, called into action via LCP, has resources that can be used for mitigating sea pollution events.

## 9.6 Local Emergency Services

The Fire Department, Civil Defense, Police and the hospital unit have the necessary resources for emergency situations.

## 9.7 Combating Oil Spills

The following sub-items describe the resources available for combating pollution in the areas adjacent to the Terminal.

## **9.8 Combat Capacity of the Terminal**

The resources available at the Terminal for combating oil spillage situations are listed in the LCP, which is available in all the administrative, operational and maintenance areas of TA-Natal.

### **9.8.1 Combat capacity of the Environment Agency**

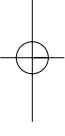
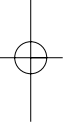
The Environment Agency of Rio Grande do Norte does not have the resources for combating oil spillage into the sea.

### **9.8.2 Resources available from the Mutual Support Plans at other Terminals**

The resources available at other Transpetro terminals to meet pollution emergencies occurring in the area bordering the Terminal are listed in the PCL.

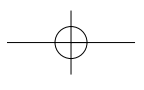
### **9.8.3 Combating a large incident**

The LCP at the TA-Natal lists the actions and the entities with responsibility for every expected type of event that may occur in its units, pipelines or vessels, involving third parties. For events not foreseen in this document, Transpetro/Petrobras will provide all the national or international resources within its reach.



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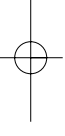
# CONTACTS

## 10.1 Terminal

| Location                | Contact           | Telephone<br>(55 84) | Fax<br>(55 84) | VHF/UHF Channels |              |
|-------------------------|-------------------|----------------------|----------------|------------------|--------------|
|                         |                   |                      |                | Call             | Conversation |
| Control Center          | Operator          | 3216-9219            | 2163-9209      | 13               | 13           |
| Supervision at TA-Natal | Supervisor        | 3216-9224            | 2163-9209      | 13               | 13           |
| Safety (SMS)            | Safety Technician | 3216-9214            | 2163-9209      | 13               | 13           |

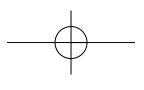
## 10.2 Port Services

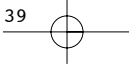
| Organization      | Contact             | Telephone<br>(55 84) | Fax | VHF/UHF Channels |              |
|-------------------|---------------------|----------------------|-----|------------------|--------------|
|                   |                     |                      |     | Call             | Conversation |
| Harbor Master     | Officer on duty     | 3201-9630            | –   | 16               | –            |
| Pilot Association | Employee in service | 3222-1613            | –   | 16               | –            |
| Tugs              | Dinamérico          | 3201-7634            | –   | 16               | –            |



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# APPENDICES

## A – Berth diagram with defenses and dolphins, mooring point and manifold location.

