PORT INFORMATION

Terminal Information Booklet

RIO GRANDE / TERIG MARINE TERMINAL

MARINE TERMINAL
RIO GRANDE

Full Terminal Address: Av. Maximiano da Fonseca, s/n – 2ª Secção da Barra
Pier Petroleiro - Industrial District
96204-020 - Rio Grande - RS
Phones: Tel: (53) 3234-3200

Contacts

Organization	Time	Telephone / Fax	E-mail / Website	VHF/ UHF Call Channel	VHF / UHF Talk Channel
Port Contact Cristiano Godoi Maia	24 h/7 d	(53) 3234-3201	c.maia@transpetro.com.br	x	
Control Center	24 h/7 d	(53) 3234-3230 (53) 3234-3250 (53) 99963-1586	op.terig@transpetro.com.br	16	13
Port Security Supervisor - SSP	24 h/7 d	(53) 99963-2819	x	x	x
CPRS - Port Authority of Rio Grande do Sul	**monday and Friday:** 8:30 a.m. to 11 a.m **tuesday, Wednesday and Thursday:** 8:30 a.m. to 11 a.m. and 1:10 p.m. to 3 p.m	(53) 3233-6119 Whatsapp: (53) 99202-4075	http://www.mar.mil.br/cprs/ cprs.secom@marinha.mil.br	x	x
Práticos da Barra - RG Pilots	24 h/7 d	(53) 3293-4747 Fax (53) 3293-4700	http://www.rgPilots.com.br sede@rgPilots.com.br torre@rgPilots.com.br	16	9
Ibama	8:30 a.m. to 12:00 p.m. and 1:30 p.m. to 6:00 p.m	(51) 3214-3457 (51) 3214-3469	supes.rs@ibama.gov.br ut.riogrande.rs@ibama.gov.br	x	x

INTRODUÇÃO

This Port Information was prepared by Petrobras Transportes S.A. **(TRANSPETRO)**, which operates the **TERIG** Marine Terminal in the port of **RIO GRANDE**.

It contains essential information for ships seeking to operate at the terminal, and is distributed to the port's stakeholders, national and local authorities and the various branches of the company.

Port Information has versions in Portuguese and English.

The information contained in this publication is intended to supplement, never replace or alter any type of legislation, instructions, guidelines or official national or international publications. Therefore, anything that contradicts any of the aforementioned documents should not be taken into consideration.

Terminal reserves the right to change any operational information presented here without prior notice.

TRANSPETRO will analyze any suggestions, recommendations or corrections to the subjects covered here, with a view to improving the information. If you find incorrect information that needs to be updated, please contact us:

RIO GRANDE Marine Terminal - TA- TERIG
Av. Maximiano da Fonseca, s/n – 2ª Seção da Barra - Píer Petroleiro - Distrito Industrial
96204-020 - Rio Grande - RS

Petrobras Transportes S/A - TRANSPETRO

Av. Presidente Vargas, nº 328, Centro, CEP 20091-060, Rio de Janeiro - RJ Communication Office

Telephone numbers (021) 3211-9039 and (021) 3211-9000.

The latest version of this Port Information and the other **Transpetro** Terminals can be obtained at the following address:

https://transpetro.com.br/transpetro-institucional/nossas-atividades/dutos-e-terminais/informacoes-portuarias.htm

SUMMARY

REVIEWS

Review	Alterations	Date	Elaboration	Approval
V.0	Initial Version	12/06/24	Capt. Rômulo Prazeres - Nautical Advisor ON Jacqueline Ferreira Vieira - C3JG Ives Marcelo Xavier - T2YN	Capt. Rômulo Prazeres Nautical Advisor

1. EMERGENCY PROCEDURES

1.1 GERAL

EMERGENCY CONTACTS

Organization	Operation hours	Telephone	Mobile	VHF / UHF List	VHF / UHF Conversation
Port Control VTS	24 hours	53 3231 2233	x	16	9
Tugboats	24 hours	x	x	16	13
Practical	24 hours	53 3293 4747	x	16	9
Oil Pier	24 hours	53 3234 3228	x	16	13
Terminal Control Room	24 hours	53 3234 3230 53 3220 3250	53 9963 1586	16	13
Federal police	24 hours	53 3293 9000	x	x	9
Police	24 hours	190	x	x	x
Fireman	24 hours	193	x	x	x
Santa Casa de Misericórdia Hospital	24 hours	53 3231 3633		x	x

ENVIRONMENTALLY SENSITIVE AREAS

The areas within the port or in the vicinity of the Terminal that are defined as sensitive areas or subject to the risk of pollution are the marshes, one of which is close to the entrance jetties. To the north is Saco da Mangueira, which is also a sensitive area. On the other side of the port, most of the region is considered sensitive.

GENERAL DESCRIPTION OF THE EMERGENCY RESPONSE ORGANIZATION

Type of Incident	Responsible Organization	Other Organizations Involved			
Canal collision	Maritime Authority	Terminal	P&I	Ship agent	SUPRG
Boat running aground	Maritime Authority	P&I	Agent	SUPRG	Pilotage
Cradle collision	Maritime Authority	Terminal	P&I	Agent	SUPRG
Sinking Vessel	Maritime Authority	P&I	P&I	Agent	Terminal
Vessel fire	Maritime Authority	Terminal	Fire brigade	Agent	P&I
Fire in the cradle	Terminal	Fire brigade	SUPRG	Agent	Ultimate Authority
Pollution	Fepam	Agent	P&I	Terminal	SUPRG Highest Authority

EMERGENCY PLANS

The ship will send a summary of its emergency plans for the following situations in advance:

- Fire
- Pollution
- Tank overflows

The ship will also inform you of the resources it has available to deal with an emergency.
If you need to know what resources are available at the Terminal, your representative will ask you for a copy of the document containing instructions for combating a particular emergency.
The terminal has resources available for minor medical emergencies.

PUBLIC RESOURCES TO COMBAT THE EMERGENCY

There is a Civil Defense structure in the city, which brings together private and public organizations trained to act in the event of an emergency.

• PORT ADMINISTRATOR

The port administrator is SUPRG.

• MARITIME AUTHORITY (AM)

The maritime authority is the Port Authority.

LOCAL EMERGENCY SERVICES

As set out in the EMERGENCY CONTACTS table.

MARITIME MUTUAL SUPPORT PLANS

The Maritime Authority leads a Maritime Mutual Support Plan (PAMM) that responds to emergencies involving ships

1.2 OIL SPILLAGE AND STEAM RELEASE

The terminal has equipment, collection boats and other facilities for dealing with a spill.
In the event of a spill caused by the ship, it will be unconditionally responsible for reimbursing the costs involved.
In the event of a spill caused by the ship and the Captain needs support, a request for an emergency support service will be sent with a commitment to pay. Assistance will be provided depending on the scenario and the product spilled.
For special cargoes (acids, chemical products in general), the ship must have the resources to contain, collect and neutralize small leaks on board.
This will be inspected on arrival and will be a mandatory factor for the start of operations.

TERMINAL COMBAT CAPACITY

The Terminal has the capacity to react to a medium-sized emergency.

THE ENVIRONMENTAL AGENCY'S FIGHTING CAPACITY

Rio Grande's environmental agency has no resources for combating oil spills at sea.

RESOURCES AVAILABLE FROM THE MUTUAL SUPPORT PLANS OF OTHER TERMINALS

The resources available for dealing with pollution emergencies occurring in the vicinity of the Terminal at other Transpetro Terminals are listed in the ERP (EMERGENCY RESPONSE PLAN).

COMBATING MEDIUM-SIZED SPILLS

In the event of significant pollution - a medium-sized incident - the Terminal will provide Transpetro's regional resources, subject to prior payment. These resources, their readiness and how they are activated are described in the ERP (Emergency Response Plan).

COMBATING LARGE SPILLS

The Terminal's ERP (Emergency Response Plan) lists the actions and those responsible for each type of event in the event of major incidents (catastrophic proportions) that may occur within its unit, pipeline network or vessels, or that may involve third parties.
For this type of event, Transpetro/Petrobras will be able to provide national or international resources that are within its reach and that are paid for in advance.

1.3 FIRE AND EXPLOSION

See item 1.1 General/Emergency Plans

1.4 EVACUATIONS (EVACUATION ROUTE AND MAP OF MEETING POINTS)

If you need to know what resources are available at the Terminal, your representative will ask you for a copy of the document containing instructions for combating a particular emergency.

1.5 COLLISION / BERTH DAMAGE

If you need to know what resources are available at the Terminal, your representative will ask you for a copy of the document containing instructions for combating a particular emergency.

1.6 MEDICAL EMERGENCY

The terminal has resources available for minor medical emergencies.

1.7 SECURITY BREACH

See item 8.13 **ISPS CODE COMPLIANCE**

1.8 MAN AT SEA

If you need to know what resources are available at the Terminal, your representative will ask you for a copy of the document containing instructions for combating a particular emergency.

1.9 MOVING AWAY FROM A MOORED SHIP

If you need to know what resources are available at the Terminal, your representative will ask you for a copy of the document containing instructions for combating a particular emergency.

1.10 EMERGENCY STOP (ESD)

For gas ships, the ESD button must be made available to the shore team. For other types of tanker, the ESD button will be available in an easily accessible place.

1.11 INCIDENT NOTIFICATION POLICY

Your representative will ask you for a copy of the document containing instructions for a particular emergency.

2. Safety, Environment and Health Policies

2.1 PERSONAL PROTECTIVE EQUIPMENT (PPE)

They must be used throughout the ship's stay.

2.2 TERMINAL ACCESS (SHORE CREW AND VISITORS)

For more information, the Terminal's port security supervisor, who is trained in accordance with IMO requirements, can be contacted on (53) 99963-2819.

2.3 DECLARATION of SECURITY – DoS (ISPS CODE)

The Terminal has implemented corporate security protection measures applicable to ships and port facilities, in accordance with the requirements of the International Maritime Organization - IMO, through the adoption of the ISPS - International Ship and Port Facility Security Code.

If necessary, these security measures can be activated by the ship through the terminal's port security supervisor (PFSO - Port Facility Security Officer) or via VHF radio, call channel 13.

The terminal operates normally at security level 1. For more information, the Port Facility Security Officer - PFSO, who is trained in accordance with IMO requirements, can be contacted on (53) 99963-2819.

2.4 ALCOHOL AND OTHER DRUGS

According to ISGOTT, for staff health and safety reasons, the use of alcohol and drugs has a dangerous effect on performance, behavior and insecurity in the workplace. Therefore, the consumption of alcohol or the use of illicit drugs is not permitted at the **Transpetro**Terminal.

Transpetro to support the efforts of international authorities to combat illicit drug trafficking and the use of alcohol in non-permitted places, complies with the relevant preventive measures to avoid the use, possession, distribution of these criminal substances

2.5 SMOKING

Smoking areas must be identified and the smoking requirements observed.

2.6 PORTABLE ELECTRONIC EQUIPMENT AND UNPROTECTED LIGHTS

All portable electrical equipment used must be intrinsically safe and explosion-proof.
Only intrinsically safe and explosion-proof electric lighting may be used on deck while the ship is at the pier.

2.7 MAINTENANCE ON BOARD WHILE MOORED

The following are not permitted during operations on the oil pier: other on-board connections, hot services, top loading of tanks, tank cleaning, ventilation and conditioning of tanks, handling and maintenance of moorings and anchors, decarbonization of cylinders, maintenance of the generator system and services of the same nature.

2.8 MATERIAL HANDLING

Awake by the terminal.

2.9 SAFETY DATA SHEET FOR CHEMICAL PRODUCTS (SDS)

The Safety Data Sheet - SDS is compulsory for all chemical products classified as hazardous or whose intended or recommended uses give rise to risks to the health and safety of workers.

2.10 BENZENE AND H2S

The risks associated with toxic substances present in the cargo being handled must be properly identified and understood.

2.11 STATIC ELECTRICITY

Precautions must be **taken** to prevent the risk of ignition by static electricity sparks during measurements, sampling, connections and charging/discharging operations.

3. General Information

3.1 NAVIGATING CHARTS AND REFERENCE DOCUMENTS

Information about the Terminal can be found in the publications listed below.

Letters

Letters 2.100, 2.101, 2.110, 2.112 and 2.140.

Area	Letter number
	Brazil (DHN)
Anchoring and approaching the port	2101
Port entrance and canals	2100

Other Publications

Type / Subject	Editor or Source
NPCP-RS - Standards and Procedures of the Port Authority of Rio Grande do Sul	CPRS - Port Authority of Rio Grande do Sul - http://www.mar.mil.br/cprs/
Operating regulations for the Port of Rio Grande	SUPRG

3.2 SHIP/TERMINAL COMMUNICATION POLICY

See items below.

3.3 DOCUMENTS AND EXCHANGES OF INFORMATION

Information	Prepared by:			Delivered to :			Comment
	Terminal	Ships	Both	Terminal	Ships	Both	
Before Arrival							
Estimated time of arrival (ETA) vessel information		x		x			According to ISGOTT
Essential information about the terminal	x				x		According to ISGOTT
Before Cargo or Bunker Transfer							
Cargo details / slop ballast on board		x		x			According to ISGOTT
Essential operational information	x				x		According to ISGOTT
Ship/shore safety checklist			x			x	According to ISGOTT
During Cargo or Bunker Transfer							
Repeat the ship/shore safety checklist			x			x	According to ISGOTT
After Cargo or Bunker Transfer, before departure							
Information needed to unberth the ship			x			x	Amount of fuel and water on board
After unmooring, at the port exit							
Information on port exit data		x			x		Timetable for disembarking and leaving the port

3.4 OPERATING HOURS

No restrictions

3.5 LOCAL TIME

Brasilia Time in UTC-03:00

3.6 COMMUNICATION LANGUAGES

Communication from the ship/terminal must be in Portuguese or English.

3.7 USEFUL PHONE NUMBERS

See item 10. **Contacts**

3.8 ENVIRONMENTAL MONITORING PROCEDURES

This terminal does not have a weather monitoring station.

4. Port or anchorage description

4.1 GENERAL DESCRIPTION

Located at 32 degrees 7 minutes and 20 seconds south latitude and 52 degrees 5 minutes and 36 seconds west longitude from Greenwich. It is the southernmost port in Brazil, located on the west bank of the North Channel, which is the natural outlet for the entire Laguna dos Patos watershed.

Of the state's three organized ports, Rio Grande is the most important, as the only seaport. The geographical location of the Port of Rio Grande, by means of nautical charts, is provided by Chart 2.101 of the Brazilian Navy's Hydrography and Navigation Directorate.

The demand for the Port of Rio Grande must be given extra attention by the navigator, as its coast is low and has no natural hazards, and there is an incidence of fog and shrouds.

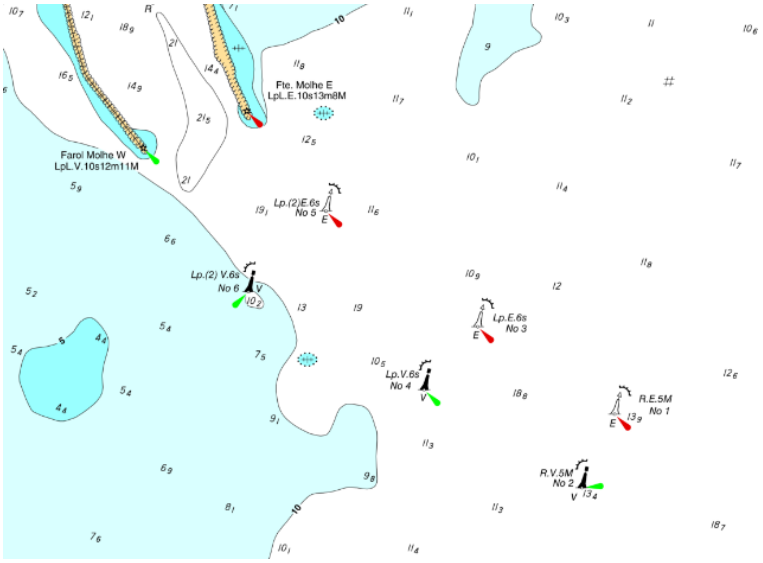
The proliferation of banks and deep-sea beds can be seen both north and south of the bar. It is advisable for the navigator to use the echo sounder continuously, especially when navigating in fog.

4.2 LOCATION

Coordinates

The position of buoy 1 in the access channel is given by the coordinates:

- ✓ Latitude: 32° 12' 04" S
- ✓ Longitude: 052° 03' 00" W



4.3 APPROACHING THE TERMINAL

CHARACTERISTIC POINTS

The following points help demand and anchoring on the bar and inside the port:

✓ Barra Lighthouse (32° 07' 10" S - 052° 04' 65" W) - Metal truncated tower, with black and white horizontal stripes, occultation light at an altitude of 32 m with a range of 30 nautical miles and Morse code racon letter K. Next to the lighthouse, there is a remarkable square tower from the old Atalaia.

✓ East pier lighthouse - 4 nautical miles to the S of Barra Lighthouse, a quadrangular white reinforced concrete tower with a flashing light at an altitude of 13 m and a range of 8 nautical miles, located at the E pier end of the access channel.

✓ West pier lighthouse - 0.4 nautical mile to the W of the east pier lighthouse, a triangular tower on a reinforced concrete base, white, with a flash light at an altitude of 10 m and a range of 11 nautical miles, located at the W end of the access channel.

✓ Rio Grande radio beacon tower - 2.3 nautical miles NNW of the Molhe Oeste lighthouse, a metal lattice tower with a fixed light at an altitude of 76 m and a range of 10 nautical miles.

✓ Embratel Tower (32° 02'00" S - 052° 05' 96" W) - A cylindrical, white tower, 63 m high with a particular fixed light on the top. It is indirectly lit with fluorescent lamps, which produce a strong glow, visible from 20 nautical miles away.

PERMITTED ANCHORAGES

ANCHORING AREAS

The areas used for anchoring in the Organized Port of Rio Grande are regulated and administered by the Port Authority, and the CPRS is responsible for issuing an opinion on the safety of navigation in the anchoring authorizations provided by the port administration.
The areas have the following boundaries and restrictions for requesting anchoring:

AREA ALFA

Vessels up to 240 meters long and with a maximum draft of 12.20 meters may anchor for refueling during the day, between buoys 9 and 11. For ships longer than 190 meters, the following measures are mandatory:

The permanence of a Pilot on board throughout the anchoring period; and the permanence of a tugboat in "STAND BY", on the counter-board, appropriate to the ship's needs. (In case the ship needs to be suspended and turned in an emergency). For ships longer than 240 meters, subject to prior consultation and assessment of the current situation. For visit/inspection by the Port Authorities, when necessary before berthing.

The Captain of the ship at anchor must be warned by the agent representing him to keep the engine ready, given the strong current and the limited space to turn. If tugs need to be used to push the anchored ship in order to facilitate traffic in the channel, it will be the responsibility of the agent representing the ship to hire these tugs.

The ALFA area is delimited by a polygon with the following vertices:

- Latitude 32° 07' 57" S Longitude 052° 06' 08" W
- Latitude 32° 07' 57" S Longitude 052° 05' 46" W
- Latitude 32° 08' 23" S Longitude 052° 05' 43" W

- Latitude 32° 08' 49" S Longitude 052° 05' 35" W
- Latitude 32° 09' 57" S Longitude 052° 05' 05" W
- Latitude 32° 09' 57" S Longitude 052° 05' 29" W
- Latitude 32° 08' 37" S Longitude 052° 06' 02" W
- Latitude 32° 08' 04" S Longitude 052° 06' 08" W

BRAVO AREA

Only precarious anchoring is allowed, subject to authorization and control by SUPRG and a favorable opinion from CPRS. The BRAVO area is delimited by the polygon with the following vertices:

- Latitude 32° 07' 57" S Longitude 052° 06' 08" W
- Latitude 32° 07' 57" S Longitude 052° 05' 46" W
- Latitude 32° 05' 57" S Longitude 052° 06' 08" W
- Latitude 32° 05' 57" S Longitude 052° 05' 46" W

CHARLIE AREA

Only precarious anchoring is allowed, subject to authorization and control by SUPRG and a favorable opinion from CPRS. The CHARLIE area is delimited by the polygon with the following vertices:

- Latitude 32° 05' 57" S Longitude 052° 06' 08" W
- Latitude 32° 05' 57" S Longitude 052° 05' 46" W
- Latitude 32° 04' 57" S Longitude 052° 05' 46" W
- Latitude 32° 05' 07" S Longitude 052° 05' 27" W

DELTA AREA

Only precarious anchoring is allowed, subject to authorization and control by SUPRG and a favorable opinion from CPRS. The DELTA area is delimited by the polygon with the following vertices:

- Latitude 32° 04' 57" S Longitude 052° 05' 46" W
- Latitude 32° 05' 07" S Longitude 052° 05' 27" W
- Latitude 32° 04' 35" S Longitude 052° 05' 22" W
- Latitude 32° 04' 47" S Longitude 052° 05' 02" W

ECHO AREA

Anchorage area for ships up to 9.45 m draft, in the following cases:

I) Ships up to 190 meters in length, carrying dangerous cargo or being refueled, calling at (or coming from) inland ports or terminals; and

II) loading ships with hazardous cargo using a transshipper after complying with the rules in 2) (b) below. Anchoring for transhipment or refueling will be authorized for one ship at a time. A second ship may be allowed to anchor, but it will not be able to tranship or refuel until the first ship has finished its work.

The **ECHO** area is delimited by the polygon with the following vertices:

- Latitude 32° 03' 58" S Longitude 052° 04' 34" W
- Latitude 32° 04' 13" S Longitude 052° 04' 04" W
- Latitude 32° 04' 47" S Longitude 052° 05' 02" W
- Latitude 32° 04' 35" S Longitude 052° 05' 22" W

FOXTROT AREA

Only precarious anchoring is allowed, subject to authorization and control by SUPRG and a favorable opinion from CPRS. The **FOXTROT** area is delimited by the polygon with the following vertices:

- Latitude 32° 03' 29" S Longitude 052° 04' 27" W
- Latitude 32° 03' 30" S Longitude 052° 03' 32" W
- Latitude 32° 03' 32" S Longitude 052° 03' 23" W

- Latitude 32° 04' 13" S Longitude 052° 04' 04" W
- Latitude 32° 03' 58" S Longitude 052° 04' 34" W

GOLF AREAS

Anchorage areas permitted in the following cases:

I) Ships engaged in inland navigation, as well as those calling at (or coming from) inland ports or terminals and ships coming from the high seas for bunkering or repairs only; and

II) loading ships using a transshipper and a chute. Anchoring for ships refueling in this area will be permitted for a maximum of two ships simultaneously. The maximum draft allowed for these areas is 6.7 meters.

GOLF AREA I

Anchorage area allowed for ships up to 150 meters long.

The **GOLF I** area is delimited by the polygon with the following vertices:

- Latitude 32° 02' 47" S Longitude 052° 02' 58" W
- Latitude 32° 02' 47" S Longitude 052° 02' 43" W
- Latitude 32° 03' 26" S Longitude 052° 03' 07" W
- Latitude 32° 03' 26" S Longitude 052° 03' 22" W

GOLF AREA II

Anchorage area allowed for ships up to 240 meters long.

The **GOLF II** area is delimited by the polygon with the following vertices:

- Latitude 32° 01' 54" S Longitude 052° 02' 47" W
- Latitude 32° 01' 54" S Longitude 052° 02' 29" W
- Latitude 32° 02' 30" S Longitude 052° 02' 32" W
- Latitude 32° 02' 47" S Longitude 052° 02' 43" W
- Latitude 32° 02' 47" S Longitude 052° 02' 58" W
- Latitude 32° 02' 30" S Longitude 052° 02' 50" W

GOLF III AREA

Anchorage area allowed for ships over 240 meters long.

The **GOLF III** area is delimited by the polygon with the following vertices:

- Latitude 32° 01' 00" S Longitude 052° 03' 05" W
- Latitude 32° 01' 00" S Longitude 052° 02' 39" W
- Latitude 32° 01' 54" S Longitude 052° 02' 29" W
- Latitude 32° 01' 54" S Longitude 052° 02' 47" W

HOTEL AREA

A permitted anchorage area for boats that cannot travel through the artificial channels of Lagoa dos Patos at night.

The **HOTEL** area is delimited by the polygon with the following vertices:

- Latitude 31° 47' 10" S Longitude 052° 20' 40" W
- Latitude 31° 47' 05" S Longitude 052° 20' 18" W
- Latitude 31° 47' 14" S Longitude 052° 20' 15" W
- Latitude 31° 47' 20" S Longitude 052° 20' 34" W

EMERGENCY ANCHORING

An **"EXCLUSIVE FOR EMERGENCY ANCHORING"**sub-area is reserved within the **ALFA** area, to be used by ships docked at Rio Grande's ports and terminals, delimited by the polygon with the following vertices:

- Latitude 32° 09' 12" S Longitude 052° 05' 36" W
- Latitude 32° 09' 10" S Longitude 052° 05' 33" W
- Latitude 32° 09' 23" S Longitude 052° 05' 28" W
- Latitude 32° 09' 26" S Longitude 052° 05' 31" W

If necessary, the CPRS will establish additional safety requirements to be met depending on the nature of the emergency.

Military Security Area (Southern Naval Patrol Group)

It is forbidden to anchor within the military security area delimited by the polygon with the following vertices:

- Latitude 32° 08' 12" S Longitude 052° 06' 13" W
- Latitude 32° 08' 12" S Longitude 052° 06' 06" W
- Latitude 32° 08' 29" S Longitude 052° 06' 03" W
- Latitude 32° 08' 30" S Longitude 052° 06' 11" W

Ships at anchor in an area adjacent to the military security area must correctly calculate the filament required for anchoring in order to avoid entering the military security area. Should such a situation arise, you must immediately stop and anchor elsewhere.

Remarks

a) Anchoring in the above areas must be requested at least **3 hours**in advance;
b) Anchoring in the **ECHO** area for transhipment of dangerous cargo between ships must be requested from SUPRG and an opinion obtained from CPRS at least **72 hours**in advance. Normally, this type of operation should be carried out on the quayside of the Petrochemical Terminal and, if necessary, at the Oil Terminal, adopting the appropriate safety regulations. Transhipment operations between ships at anchor must meet the requirements set out in NORMAM-204/DPC, chapter 6 and in areas previously approved by the CPRS.
c) *Ship-to-ship* operations should not take place when the wind is stronger than 20 knots.

NAVIGATION AID

- The port has tugboats and speedboats.
- The access and navigation channel is signposted.
- There are beacons at the entrance to the bar.

4.4 MANEUVERING AREAS

- We recommend consulting local regulations (NPCPs) and Pilotage.

4.5 ENVIRONMENTAL FACTORS

The winds follow the coastal wind regime. The prevailing wind in the region is northeast in spring and summer, and southwest in fall and winter. Its average speed is 30 km/h (16 knots), making it a moderate range.

There are, however, strong wind flows, with gusts reaching 60 km/h (32 knots), wind 7 on the Beaufort scale, described as a strong wind, in which case the loading or unloading operation will be interrupted.

If conditions worsen, i.e. in the event of a very strong wind (8 on the Beaufort scale) above 39 knots (72 km/h), the ship will be unberthed from the pier.

The arrival of the SW wind is also predictable, due to the sharp rise in sea level at the bar. Another harbinger of a violent SW is the sudden change in wind direction, counterclockwise.

- **Waves and Waves**

The wave regime in the Port of Rio Grande depends closely on the local wind regime.
The waves are perpendicular to the coast and are attenuated at the Terminal due to the pier being located inside the channel.
Local measurements and observations indicate that amplitudes are rarely greater than 2 m and that periods are generally short (7 seconds).

- **Lightning storms**

It tends to happen mainly during the winter and summer seasons. During these events, operations are interrupted.

- **Visibility**

Generally speaking, it's good during the summer, although it's badly affected by heavy rain and fog in the fall and spring.

- **Tidal and other currents**

The tide has mixed tidal characteristics and is heavily influenced by the weather, i.e. local winds.

With wind blowing from south direction, the tide usually fills and dams the water in Lagoa dos Patos; with a north wind, the opposite happens.

In calm, the tide is zero, because this region of the globe has a zero tide. In the vicinity of the jetties, with a south wind the flood current can reach 3 knots; with a north wind, the ebb current can reach 5 knots.

Near buoy pairs 1-2 and 3-4 in the access channel to Porto Novo, the strong ebb current brings the ship closer to buoys 1 and 3.

- **Changing tide levels**

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

- **Measurements**

The Barra do Rio Grande Pilotage Station publishes up-to-date weather information on its website. Alternatively, the vessels operating at the terminal can also be consulted.

This Terminal does not have a weather monitoring station.

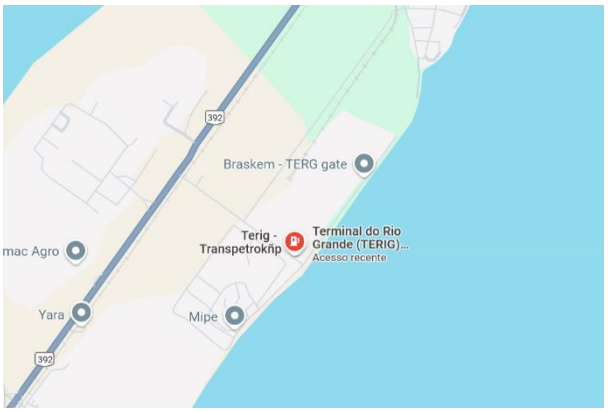
5. Terminal Description

The oil pier has three berths.

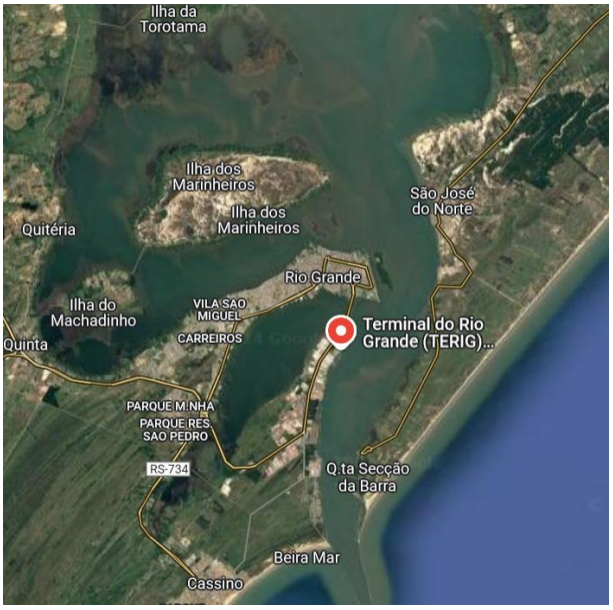
They are called Ponta Sul, Ponta Norte and Píer de Barcaças berths. To the south of the TERIG Terminal is the pier belonging to Yara, a fertilizer company. To the north is the Braskem pier.

5.1 TERMINAL LOCATION

The Terminal is located at GPS position Lat. 32º 04'37" S and Long. 52º 05' 34" W



5.2 TERMINAL LAYOUT



5.3 CONDITIONS FOR ACCEPTANCE OF THE VESSEL

During the ship's stay in port, various actions are taken to ensure safe operation and to manage risks in such a way as to minimize them.

Ships with previous problems will not be accepted and will not be allowed to operate at the oil pier. Petrobras/Transpetro will not be responsible for any actions that do not comply with the normal deadlines for this purpose.

In all phases, as described in the following sub-items, steps are taken to facilitate operations and plan them properly.

5.4 MANAGEMENT AND CONTROL

There is an operations control center located in the Terminal. Control is carried out via closed circuit television and with the presence of a Terminal representative at the ship's connection. The ship must have a VHF radio system to communicate with the Terminal.

It is compulsory to exchange information every hour on the quantity handled during that period, the forecast for the end of the operation and any other relevant information.

An accredited crew member must be placed on deck duty to ensure that communications are maintained, or remain in visual contact with the operator on the ground during the operation.

This crew member is responsible for notifying the terminal operator when loading or unloading flows need to be changed. VHF or voice radios can be used directly for this purpose.

A responsible ship's officer with an adequate command of the English language will be equipped, as agreed, to serve as a spokesperson for communication.

An officer in charge of the ship and a sufficient number of crew members must be on duty in order to maintain the safe operation of the ship.

In addition to the fixed and portable radio systems, the ship must have an alternative means of communication, such as a cell phone.

5.5 MAIN RISKS

The main risks during a ship's stay at berth are:

- Moving away from the pier due to ships passing along the channel;
- Strong winds, even sudden;
- Strong current;
- Attacks by thieves and pirates from the sea;
- Static electricity in cargo handling;
- Ballast handling; and

❖ Electrical discharges.

6. Description of the berths

6.1 DETAILS OF THE BERTHSS: SOUTH POINT, NORTH POINT AND BARGE PIER

Berth Name and No.	Type	Berth Lenght (m)	Maximum Draught (m)	Maximum Breadth (m)	Maximum Ship Lenght (m)	Distance Between Fenders (m) and Quantity	Products Handled	Maximum Displacement (Tons)	Maximum SDWT (Tons)
1 SOUTH	Píer	240	12,19	35	225	50 2	Oil, gas, ammonia, chemical products, oil products.	70.000	55.000
2 NORTH	Cais	100	10	25	140	22,5 3	Oil, gas, ammonia, chemical products, oil products.		22.000
3 BARGE	Píer	100	10	20	100	30 2	Oil products.		5.000

DEPTH CONTROL

Depth control must be monitored during the vessel's displacement and berthing operation at the oil pier. The characteristics for mooring the oil pier are as follows:

❖ **South Point**

✓ Maximum summer deadweight of ships: 55,000 t
✓ Maximum displacement: 70,000 t
✓ Maximum ship length: 225m
✓ Minimum parallel body length (ballast condition): 70 m
✓ Breadth: 35m
✓ Draft: 40 feet (12.19 meters)

❖ **North Point**

✓ Maximum deadweight of ships: 22,000 t
✓ Maximum ship length: 140m
✓ Draft: 33 feet (10.06 meters)

❖ **Barge pier**

✓ Maximum deadweight of ships: 5,000 t
✓ Maximum ship length: 100m
✓ Draft: 33 feet (10.06 meters)
✓ Minimum parallel body length: 25 meters

❖ **Water density**

Water density in Rio Grande varies dynamically with the direction of the tidal currents, with reference values between 1.020 and 1.030g/cm³@20°C

❖ **Requirements for Load Handling Equipment**

Check with the terminal

❖ **Mooring Equipment SWL**

The bollards have an SWL of 80 tons. Cats have a SWL of 35 tons.

6.2 MOORING AND BERTHING ARRANGEMENTS

See: Appendix B - Diagram of the mooring berths at the southern tip

Appendix C - Diagram of the mooring berths at the north end

Berth Name	Requires Pilot for berthing	Maximum Summer Deadweight	Qty. & BP Tugs bollard pull				Aproximação (máxima)		Mooring Points		Mooring Bollards Minimum Quantity		
			Berthing		Unberthing		Speed (m/s)	Angle (°)	Bitts Bollards	Hooks	Head Lines	Breast Lines	Spring Lines
			Qty.	BP	Qty.	BP							
1 PS	Yes	55.000	2	TBC	2	TBC	0,1	3	4	14	4	2	2
2 PN	Yes	22.000	2	TBC	2	TBC	0,1	5	5	3	4	0	2
3 PB	No	5.000	2	TBC	2	TBC	0,1	3	5		4	0	2

6.3 CHARACTERISTICS OF THE BERTH FOR LOADING, UNLOADING AND BUNKERING

Berth Name	Type of Products	Hose/Flange of berths	Loading or Unloading	Temperature (ºC)		Rate (max) m³/h	Pressure (max) kgf/cm²
				(mín)	(max)		
South Pier	Crude	2 x 8”	U	20	50	1500	7
	Chemicals Procduts	2 x 6”	L/U	20	40	400	7
	Acids	2 x 6”	U	15	30	400	7
	Ammonia	2 x 6”	U	-34	-32	300	7
	LPG	2 x 6”	U	0	10	300	12
	Oil Procduts	2 x 6”	L/U	10	40	800	7
	Petrochemicals	2 x 6”	L/U	10	40	300	7
	Bunker	2 x 6”	L/U	40	70	800	7
North Pier	Crude	2 x 8”	L/U	20	50	1500	7
	Chemicals Procduts	2 x 6”	L/U	20	40	400	7
	Acids	2 x 6”	U	15	30	400	7
	Ammonia	2 x 6”	U	-34	-32	300	7
	LPG	2 x 6”	U	0	10	300	12
	Oil Procduts	2 x 6”	L/U	10	40	800	7
	Petrochemicals	2 x 6”	L/U	10	40	300	7
Barge Pier	Bunker	2 x 6”	L/U	-	-	800	7
	Diesel Oil					800	

6.3.1 MAXIMUM DIMENSIONS

The maximum size for a ship coming to the South pier is 225 m long and 55,000 tpb. With these dimensions, the ship will only be able to operate in Ponta Sul (South pier). For Ponta Norte (North pier), the vessel must have a maximum length of 140 m and 22,000 tpb.

For the Barge Pier, the maximum length is 100 m and 5,000 tpb

7. Communication before arrival

Ships wishing to operate at the Terminal must send the information in Appendix E in advance and fill it in via the Agent, as this information is essential for preparing the operation.

The Terminal reserves the right to refuse berthing to any ship deemed unsuitable or that does not meet safety and mooring conditions or that presents any circumstance that could create a risk to its assets, which includes personnel, equipment and the environment.

In order to be accepted to operate on the oil pier, the information listed in Appendix F must be sent in advance to Petrobras in Rio Grande for proper evaluation.

For ships intending to unload at the oil pier, the questionnaire must be sent a week before the ship is due to load at the port of origin, in order to avoid inconveniences that will not be Petrobras' responsibility.

Ships bound for the Rio Grande Terminal's oil pier will be visited in the anchorage area by Port Health, Customs and the Maritime Police. It's the ship's agent who makes the arrangements.

You can also visit the oil pier. When sanitary conditions are not satisfactory (free practice has not been granted), the ship must wait at anchorage in a state of quarantine set by the Port Captaincy, keeping the CIS quarantine sign hoisted, and it is forbidden for anyone to disembark.

The Terminal will refuse to operate ships at berth whose situation differs from that reported in the Vetting questionnaire, as well as those that do not comply with the safety issues and good practices of the global industry recommended by the IMO, OCIMF, STCW, Marpol and other applicable legal regulations.

Likewise, the Terminal will refuse to allow ships to operate if any pre-established or informed conditions are modified.

No form of tank, deck, chimney or similar cleaning is permitted. In cases of extreme need, the Terminal should be consulted for an assessment. The authorities will always be notified before the Terminal issues an authorization.

Ships bound for the Terminal's facilities must indicate their estimated time of arrival (ETA) to the ship's agent 72, 48 and 24 hours in advance respectively.

The Ship's Agent, in possession of this ETA, will inform the Terminal by telephone/fax (53) 3234-3214 or (53) 99963-1586 or by sending an e-mail to the following address: op.terig@transpetro.com.br

Failure to meet this condition prevents the guarantee of first-come, first-served berthing from being maintained.

7.1 INFORMATION FROM THE TERMINAL TO THE SHIP

7.1.1 BERTHING

SHIP'S MOORING SYSTEM

The system must have at least the following facilities:

- Have a crane or derrick (for a minimum of 3 tons) in working order to help connect hoses to the on-board manifold;
- Have the windlasses, winches, brakes and jaws in perfect working order, with a view to mooring efficiency;
- Leave tow ropes, messengers lines, guide ropes and heaving lines ready at the bow and stern;
- Have mooring lines made of suitable material. The cables must be in perfect condition, without splices or frays and be made of the same material.

MOORING WORK

Mooring work is always carried out with the help of a Pilot, who must follow the mooring diagrams in the annexes to this manual.

The ship must be moored in accordance with the requirements of its own Captain and the Terminal.

During mooring, the bow and stern must be manned by an Deck Officer with a communication radio.

The ship will not be moored when it does not meet the minimum requirements demanded by the Terminal or those that the Pilot classifies as safety factors.

MOORING LINES

Under no circumstances should the mooring lines become slacked.
If this happens, the ship could move along the pier or even move away from it. In this case, the operation will be stopped as a safety measure and the hoses disconnected.

The ship will be held responsible for the time the operation is interrupted.

Mooring lines deserve constant care and need to be worked in such a way as to keep the ship in the right position at all times.

It is advisable to keep the mooring lines at the proper tension by means of manual brakes. The use of constant tension winches is not permitted.

The ropes need to be in good condition, with no wear above 10% of the nominal diameter, no seams or splices.

All mooring lines must be made of the same material, i.e. fiber or wire.

The use of mixed lashings is not permitted, i.e. ropes that perform the same function must not be made from different materials. They need to be of the same type, gauge and material.

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

The breast lines need to be oriented as perpendicular as possible to the ship's longitudinal axis and passed as far forward and aft as possible.

The spring lines are oriented as parallel to the longitudinal axis of the ship as possible.

If the ship has steel wire ropes for mooring, it must have fiber cables and eye spliced onto their ends. These cables must follow recommendations in accordance with the latest edition of the OCIMF *Mooring Equipment Guidelines*.

WINDLASS

They must be in good condition and have sufficient capacity, according to the vessel.

BEFORE CARGO TRANSFER

The ship will only be authorized by the Terminal to begin operations after the safety inspection carried out by the nautical inspector based on the ISGOTT Operational Safety Checklist.

If a pending issue is identified that is not resolved by the crew, the ship will not be authorized by the Terminal to begin operations.

Static electricity isolating hoses will be used for handling crude oil and oil products.

For chemical products, use hoses with electrical continuity and an earth cable connection. It must be agreed before the ship docks which electrical insulation system will be used.

Tanks containing flammable or potentially explosive products must remain inert throughout their stay on the Terminal.

The ship must first contact the Terminal to exchange the information needed to connect the hose and/or loading arm.

The Terminal's own staff, with the help of the ship's crane operator, perform hose connections and disconnections at the ship's manifold.

The ship must have the reduction ready for the connection, depending on the diameter and pressure class.

For gas ships, the ESD button must be made available to the shore team.

For other types of tanker, the ESD button will be available in an easily accessible place.

CARGO TRANSFER

Throughout the loading and unloading operation, the flow, pressure and temperature variables involved must be monitored. In the event of a discrepancy, the operation will be interrupted for investigation.

For ships carrying sulphuric acid, ballast will not be allowed below the tanks containing the acid cargo. These ships must depressurize their cargo tanks before docking at the oil pier.

Oil and chemical tankers must keep their tanks inert at all times.
For unloading tankers, the minimum positive pressure in the tanks will be 500 mm of H_2O and O_2 content below 8% by volume.

In the event of difficulties or problems with the ship's inert gas system, operation will be suspended until the system is up to the minimum acceptable standard.

It is recommended to measure the tanks every hour. The difference in the volume handled between the ship and the Terminal must be less than the amount agreed in the initial letter, otherwise the operation will be interrupted

The requirements for LPG should follow the additional recommendations of OCIMF and SIGTTO.
The requirements for ballasting and deballasting must comply with current legislation.

There is no facility for receiving waste*(slop*) from the ship.

To carry out COW washing operations, the Terminal must be consulted beforehand. If the Terminal agrees to the operation, a representative will be appointed to accompany it.

If repairs are to be carried out, the Terminal must be consulted in advance.

Repairs that make the steering and propulsion systems, in particular, and the ship's main systems unavailable will not be accepted.

The engines, generators, compressors, steering systems, piping and control system must be working perfectly for the ship to be able to operate at the Terminal.

During the operation of the ship, full compliance with the safety inspections between ship and shore is required, in accordance with the specific ISGOTT Annex.

In the event of cargo operations being stopped, the causes that led to the stoppage of activities during the ship's stay must be reported to the Terminal.

In the event of an emergency, both on land and on board, operation must be suspended immediately and the hoses disconnection positions secured.

The Fire Brigade leader on shore will contact the ship's Captain at the time in order to define the immediate unberthing of the ship, which will depend on the scenario.

WATER DEPTH (CHANNEL ACCESS AND MOORING)

The access channel demarcated on Chart 2.101 is a strip of the oil pier 200 m to 300 m wide, oriented in a general N-S direction. Starting at light buoys 1 and 2, it extends for about 9 miles to the area known as Foxtrot. It is dredged to a depth of 12.20 m (to be confirmed with the local Pilotage) to the Terminal.

REQUIREMENTS FOR TUGS AND SUPPORT VESSELS

The following restrictions must be observed by ships calling at the Canal bound for the Rio Grande Terminal:

Ships with a draught of more than 34 feet (10.36 m) must be assisted by at least two (2) tugs, one of which must have a cable passed to the berth;

Ships with a draft of 34 feet or more and/or a length of more than 180m, it is recommended that the aft tug be of the azimuthal type. In the absence of this option, the Captain, with the assistance of the Pilot, must decide on the ideal number of tugs to use;

For berthing at the Rio Grande Terminal of ships with a deadweight tonnage (DWT) of more than 10,000t, it is recommended to use two tugs with cables passed through and one more on the side as a pusher;

Smaller vessels are not allowed to moor at the Barcaça Pier and Ponta Sul without the support of 2 tugs/lanchas;

VESSEL DISPLACEMENT AND DIMENSIONAL LIMITATIONS PER BERTH

See item 6.

MINIMUM BERTH REQUIREMENTS AND TYPICAL BERTH DIAGRAMS

See item 6.

BERTHING AND UNBERTHING MANEUVERS

See item 8.14.

WASTE AND SLOP DISPOSAL PROCEDURES

There is no facility for receiving waste (slop) from the ship

7.2 EXCHANGE OF INFORMATION FROM THE SHIP TO THE TERMINAL

Terminal Form (ISGOTT). See appendix E

8. Operational Information

8.1 SHIP / TERMINAL ACCESS

The terminal does not have shore based gangway to access the ships. The tanker gangway should be used at an appropriate angle to the horizontal. The gangway must be netted to prevent people from falling.

8.2 INITIAL RELEASE

See item 8.3.

8.3 OPERATIONAL SAFETY CHECKLIST (LVSO)

The Ship/Shore Safety Checklist (SSSCL) is checked and completed by the terminal representative (Safety Inspector) during the key meeting of the ship, when all safety recommendations are addressed.

8.4 BALLAST AND DEBALLAST POLICY

The requirements for ballasting and deballasting must comply with current legislation.

8.5 HOSE CONNECTION/DISCONNECTION PROCEDURES

HOSE CONNECTION

a) Remove the blind flange and gasket from the pier manifold valve to be used;
b) Join the flange faces of the hose and valve of the pier manifold to be connected;
c) Place a gasket between the flanges and tighten the nuts on the cases, taking care to tighten them in an "X", using all the cases. D) The bolts must exceed the edge of the nut by at least two threads;
d) Tape off the end of the hose line to be connected to the vessel's manifold;
e) Lower the load arm cable (preferably use the boat's load arm) by attaching the hook on the end of the strap to it;
f) Hoist and transport the end of the hose line to the waste collection tray of the vessel's manifold with the help of the loading arm cable, as shown in Figure 01

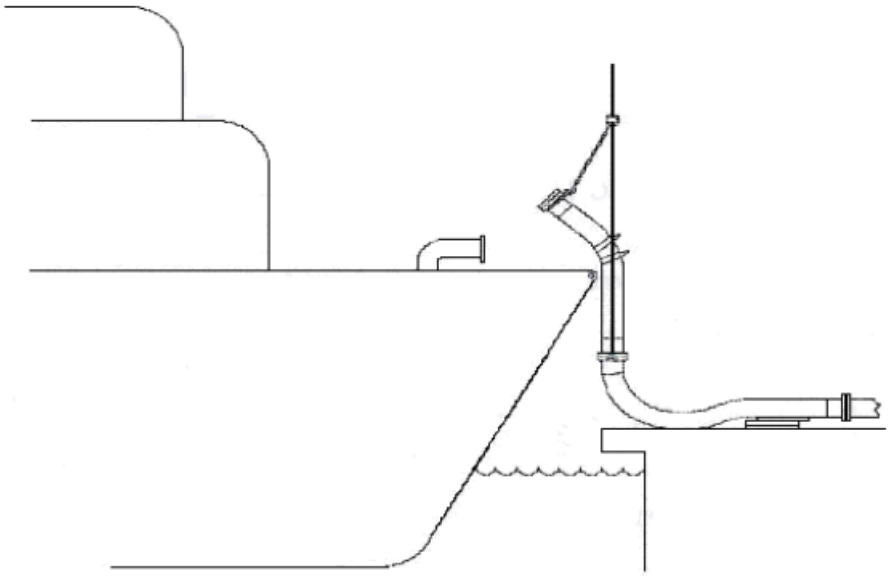


Figure 1 - Lifting and transporting a hose line

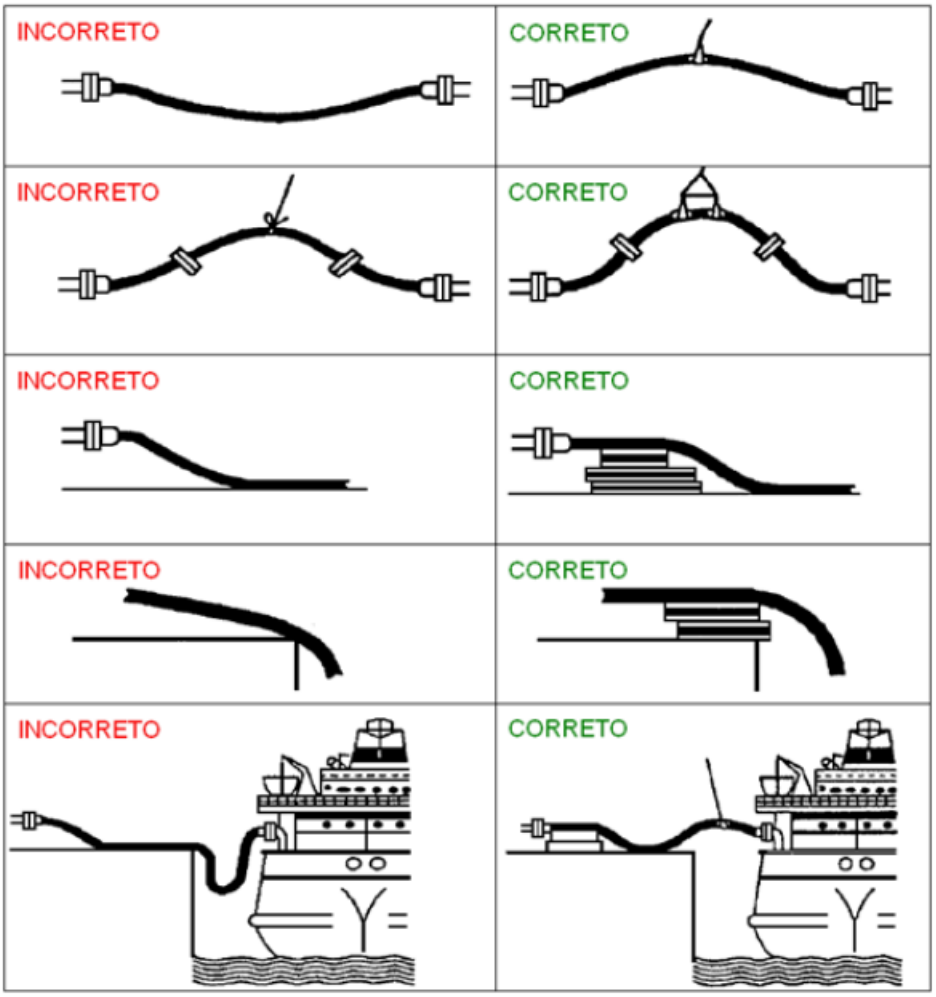


Figure 02 - Hose positioning

a) When lifting, moving or positioning a hose line, avoid localized stresses so as not to damage the hoses, as shown in the figure above:
b) The bending radius of the hoses must be above the minimum specified by the manufacturer;
c) Remove the blind flange and gasket from the end of the hose line;
d) Remove the blind flange and gasket from the on-board valve to be connected;
e) Bring the flange at the end of the hose line close to the flange of the on-board valve to be connected, so that the two face each other;
f) Place a gasket between the flanges and tighten the nuts on the bolts, taking care to tighten them in an "X" pattern, using all the bolts;
g) The bolts must extend beyond the edge of the nut by at least two threads;

h) The operation should be started at a maximum pressure of 2 kgf with a gradual increase to 7 kgf/cm², with constant monitoring by the Operation Technician or Nautical Inspector. In the event of any abnormality or leak, the operation should be interrupted and the hose connection checked;
i) In LPG cargo operations (ship/ship) carried out at the pier, on-board personnel check the tightness of the hose line. If necessary, the shore staff personnel can be requested to retighten and/or change the joint;
j) While connected to the vessel, keep the hose line supported by the loading arm, in order to relieve stress on the connections, prevent damage to the hose and at the same time avoid contact between the hose and the pier or the vessel, in order to continue providing electrical insulation between the vessel and the pier;
k) During the cargo transfer, hoses must be inspected by both parties (ship/terminal) must inspect the hoses.
l) The bolts to be used must comply with N-0076 - Piping Materials for Refining and Transportation Facilities. (Petrobras Rule)

DISCONNECTING HOSES

a) As soon as the operation is complete, the hoses used must be drained by pressurizing them with nitrogen. Keep the*manifold* valves on the pier and the vessel closed and wait for clearance to start emptying;
b) Drainage will be carried out into the vessel's tanks using inert gas, and the space available in the receiving tank should always be checked beforehand. The use of compressed air in hose drainage for disconnection is not permitted;
c) As the drainage flow is on board, the valve on the pier must be closed. Draining hoses into the Terminal is not permitted;
d) After draining the hose line, it must be depressurized. The*vents* and drain valves on the hose line should be opened to make sure they are free of product. If the hoses are not dry, repeat the operation;

Note 2: Drainage (emptying) of hoses used in LPG transhipment (ship/ship) is the responsibility of on-board personnel. After being released on board, the pier's contracted connection and disconnection personnel are authorized to proceed with the disconnection.

e) Once draining is complete, remove all the screws from the on-board connection;

f) Move the hose line far enough away from the on-board socket to place the gasket and blind flange on the end of the hose that was connected to the on-board socket;
g) Tighten the nuts on the bolts, taking care to tighten them in an "X" pattern, using all the bolts. The bolts must extend beyond the edge of the nut by at least two threads.
h) Tape off the end of the hose line to be disconnected;
i) Hoisting and transporting the hose line using the loading arm;
j) When hoisting or moving hose lines, avoid localized efforts to prevent damage to the hoses;
k) Place the hoses on the pier floor, aligning them so as not to hinder traffic on the site;
l) Remove the lashing strap.

8.6 CARGO TRANSFER PROCEDURES.

a) Loading or unloading is done through dedicated pipelines for each type of product specified, after the connections listed in the previous item have been rigorously checked.
b) Ships must keep their propulsion system in readiness throughout the operation, so that they are able to unberth and clear the berth in the event of an emergency.
c) The ship's cargo manifolds that are not in operation must be properly flanged and always have all the bolts in place.
d) The following are not permitted during operations at the terminal: other on-board connections, hot work, top loading of tanks, tank cleaning, ventilation and conditioning of tanks, handling and maintenance of moorings and anchors, decarbonization of cylinders, maintenance of the generator system and services of the same nature.
e) The unloading or transfer of the product will not begin without the formal permission and understanding between the ship and the Terminal.
f) The maximum pressures and rate established by the ship and the terminal according to their possibilities and characteristics must be maintained during the transfer.
g) The ship shall keep a crewmember on watch at the cargo manifold and monitoring the mooring lines at all times in order to establish contact with the Terminal team. Likewise, another crewmember will be on standby for help and temporary replacement. The ship can never be without a Captain and Chief Officer at the same time.
h) The firefighting equipment must be ready for any emergency, as well as the fire mains, which must be adequately pressurized and never less than ready to supply water from the other side.
i) Before starting operation, the hose line will be leak tested with a pressurization of 7.0 kg/cm$^{2.}$ The on-board and shore valves must be blocked.
j) Every hour, the Terminal must be informed of the amount of cargo handled. If there is a discrepancy greater than that agreed in the initial release (Initial Letter), the operation must be stopped.

k) The watertight doors giving access to the corridors will remain closed with the moorings passed through and tightened.
l) TRANSPETRO Terminal personnel are authorized to suspend the operation in the event of non-compliance with any of the aforementioned rules, laws or regulations, or of any dangerous situation that the operation supervisors believe to exist.
m) The Captain has the right to stop loading if he has reason to believe that operations on land are unsafe, provided he notifies the personnel on duty at the pier in advance.
n) It is expressly forbidden for people to enter the oil pier without being protected by a helmet, goggles and safety boots.
o) All side and bottom valves that are not currently in use must be closed and locked.
p) All side and bottom valves belonging to the loading system must remain closed and locked throughout the operation.
q) The suctions of the central air conditioning or mechanical ventilation system need to be adjusted to prevent gas from entering the load, if possible by recirculating the air inside the rooms.
r) If at any time there is a suspicion that cargo gas is being sucked into the accommodation, the air-conditioning and mechanical ventilation systems must be suspended and the suctions closed.
s) Window-type air conditioning units that are not certified as safe for use in the presence of flammable gas, or that draw air from outside the superstructure, must be electrically disconnected and all external intakes and outlets covered or closed.
t) The ventilation pipes are kept directed to prevent gas from entering the cargo. If the pipes are located in such a way that the cargo gas can enter through them, regardless of which direction they are facing, they must be covered, capped or closed.
u) All doors, portholes and other similar openings which allow passage from the main deck to the accommodation or engine room, or which at any level lead onto the main deck, must be kept closed. A screen door cannot be considered a safe substitute for an external door.
v) All portable electrical equipment used must be intrinsically safe and explosion-proof.
w) Radio and radar transmitting antennas must be switched off and grounded. If there is a need to use the radio or radar due to a test resulting from repairs, this procedure must be agreed between the representatives of the Terminal and the ship, so that the necessary additional measures can be adopted.
x) Only intrinsically safe and explosion-proof electric lighting may be used on deck while the ship is at the pier.
y) Measurements and sampling will always be carried out at the commenced and finished of operations. Measures may be taken during operations if necessary, as authorized by the Terminal. For measurements and sampling, the tanks will not be depressurized. If this is necessary, the Terminal must be notified for prior analysis and approval.

The operating conditions will be agreed in accordance with Annex F and the initial letter.
Before the start of operations, the SSSCL must be filled up. (According to ISGOTT - SIGTTO).

There is a restriction on excess dense smoke from the smokestack and exhaust emission, which can be measured using the Ringelmann scale or a similar method.

There is a restriction on boats on the opposite side when the tanker is berthed during the ship's stay. If it is necessary for them to remain in this area, a request must be made in advance to the Terminal, which will assess the situation and issue the conditions.

There is a restriction on propeller movement during the ship's stay.

At North Pier, there is also a restriction on the use of *bow thrusters* or *stern thrusters*, which must not be used without prior authorization from the Terminal.

8.7 LOAD MEASUREMENT, SAMPLING AND DOCUMENTATION

The arms and hoses will always be drained on board. If the ship is unable to receive the drainage, it can be sent to the Terminal. Initially, the valves on land or on board will be blocked.

Once it has been established that the hoses are empty, the on-board valves will be blocked and disconnected.

Authorities or their accredited representatives must certify cargo every time foreign trade operations are carried out.

Copies of the customs documents releasing the cargo, the manifest and the initial and final measurement sheets for all the ship's tanks must always be sent to the terminal.

The cargo owners and their consignees are responsible for compliance and proof with the authorities.

For electrostatic accumulator products, a period of at least 1 hour must be allowed after the end of the operation for the introduction of measuring UTI’s, samplying equipments, thermometers or any other metal objects.

8.8 ENVIRONMENTAL LIMITS

See item 4.5.

8.9 TANK CLEANING AND ENTRY POLICY

No way of tank, deck, chimney or similar cleaning is permitted. In cases of extreme need, the Terminal should be consulted for an assessment. The authorities will always be notified before the Terminal issues an authorization.

8.10 INERT GAS

See item 7.

8.11 SUPPLY POLICY

See item 7.

8.12 POLLUTION PREVENTION

The ship will send a summary of its emergency plans in advance.

8.13 DRINKING WATER

The terminal has no drinking water supply.

8.14 UNMOORING AND LEAVING THE PORT

When leaving the berth or port, the same precautions must be taken as when entering.

The disembarkation point is the same as the boarding point.

When family members of crew members board ships bound for foreign countries, in addition to the specific permit granted by the Port Authority, the respective passports must be handed over to the agent 24 hours before the ship is dispatched, for the purposes of regularizing boarding visas and passenger lists with the Federal Police.

On their return from abroad, the Captains are responsible for sending messages to the Terminal informing them of the number of passengers to be disembarked.

At the time of the entry visit, the list of passengers must be presented to the Federal Police together with the passports, so that they can be duly inspected by the police and health authorities.

8.15 COMPLIANCE WITH THE ISPS CODE

The Terminal has implemented corporate security protection measures applicable to ships and port facilities, in accordance with the requirements of the International Maritime Organization - IMO, through the adoption of the ISPS code - International Ship and Electronic Security

If necessary, these security measures can be activated by the ship through the terminal's port security supervisor (PFSO - Port Facility Security Officer) or via VHF radio, call channel 13.

The terminal operates normally at security level 1. For more information, the Terminal's port security supervisor, who is trained in accordance with IMO requirements, can be contacted on (53) 99963-2819.

9. Port or anchorage organization

9.1 PORT CONTROL OR VTS

The traffic control service is currently carried out by Praticagem da Barra, which can be contacted by VHF radio on channels 16 or 9, or by calling (53) 3231-2233.
.
Radio and telephone contacts, as set out in the contact table.

9.2 MARITIME AUTHORITY

The maritime authority is the Port Authority.

9.3 PRACTICE

In the port where the Pilotage service is compulsory.

The size, nationality, type of vessel and destinations for law defines which Pilotage services are mandatory.

There is only one Pilotage organization operating in the port and capable of assisting the ship during its arrival and departure from the Terminal.

In emergency situations, the Pilotage service can be called on VHF channel 16 and/or 9 or by telephone from the Pilotage tower, which must be communicated to the Captain by the agent.

Pilotage in the Port of Rio Grande is:

❖ Mandatory: for foreign ships; Brazilian oil tankers, propane tankers and explosive cargo carriers of any gross tonnage value; other Brazilian ships with a gross tonnage value of more than 500 and foreign fishing boats.

❖ Optional: for Brazilian ships with a gross tonnage of up to 500 tons; Brazilian maritime support vessels or foreign leased vessels operating in the Port of Rio Grande, provided they are commanded by a Brazilian seafarer or have a Brazilian seafarer of the nautical officer or cabotage master category in their crew; and ships of any flag, when moving along the quay under cable, to change berths.

The compulsory Pilotage zone is limited to the Pilot's embarkation and disembarkation point on the bar and the berthing point at the port quay or terminals.

To provide the Pilotage service, it has: uninterrupted bilingual voice operation, radar with a range of 50 miles and monitoring of 20 moving targets, GPS, FAX-MODEM, VHF radio listening on channels 16, 09 and 83 and speedboats.

The Association of Practitioners of Barra do Rio Grande is based at Travessa Kenedy, 238 - Centro, Rio Grande, RS, CEP 96200-330, Phone (Fax) 53 3293-4700, and maintains permanent listening via maritime VHF radio, channel 16. Information is available at http://www.rgPilots.com.br

The Pilot's embarkation point is marked on DHN Nautical Chart 2101 and has the following coordinates:

❖ Latitude: 32°12' 12" S
❖ Longitude: 052° 01' 45" W

The Pilot's boarding position will always be agreed with the Pilotage tower.
Whenever the ship arrives at the port, it must make radio contact with the terminal and the Pilotage tower.

The Captain is solely responsible for the maneuvers, and is responsible for providing the Pilot with all information about any peculiarities, specific conditions or existing difficulties, such as deficiencies in engine, boilers, problems or malfunctions in navigational aids, mooring lines or any element that could lead to danger with regard to mooring, dropping lines, loading and unloading the ship.

9.4 TUGS AND OTHER MARITIME SERVICES

Ship masters must contract tugboat services or other maritime services through their respective maritime agents.

There are companies that provide tugboat services, speedboats, supplies, boat repair services and related services needed to support vessels.
Additional information should be requested from the ship's agent.

The mooring support services and the people needed to lay cables on the bollards located at the ends of the oil pier are the responsibility of the ship and its representative agent.

9.5 OTHER RELEVANT INFORMATION

TERMINAL OPERATING REGIME

The terminal is for public use.

OTHER MAIN USERS

The following facilities are connected to the Terminal:

- Petrochemical Terminal
- Fertilizer Plant
- Oil refinery
- Ammonia tank

10. Contacts

TERMINAL

Location	Contract	Telephone	VHF channels	
South Point	Operation Technician	53 3234-3228	16/13	13/16
North Point	Operation Technician	53 3234-3228	16/13	13/16
Barge pier	Operation Technician	53 3234-3228	16/13	13/16
Control Center	Shift Supervisor	53 3234-3230 53 3234-3250	16/13	Jun/13

LOCAL AUTHORITIES, STATE AND NATIONAL AGENCIES

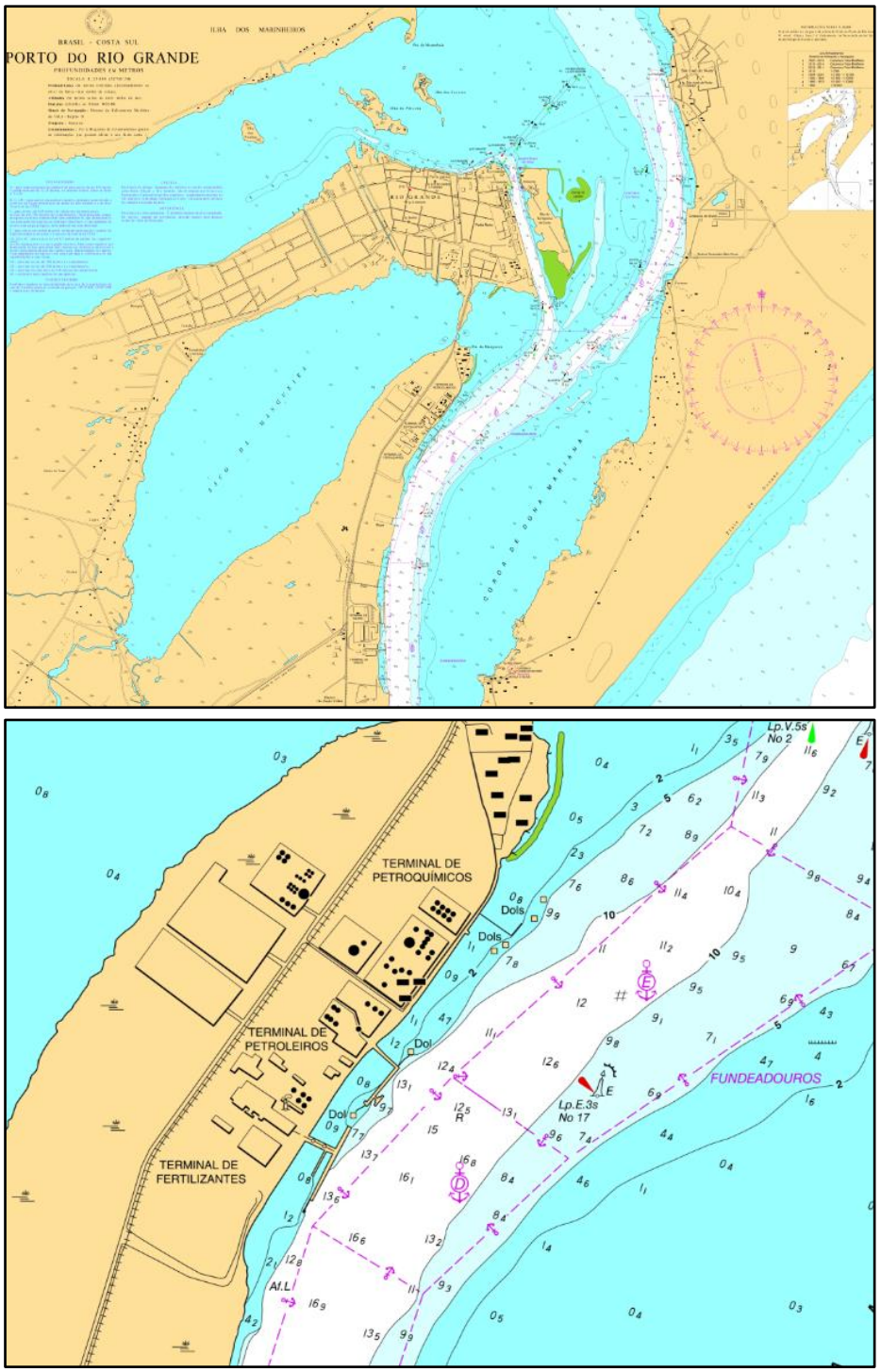
Superintendence of the Port of Rio Grande	Federal Revenue Office
Rua Honório Bicalho, s/nº - Centro - Rio Grande - RS Tel: (53) 3231-1366 www.portosrs.com.br E-mail: jornalismo@portoriogrande.com.br	Rua Marechal Floriano, 300 - Centro - Rio Grande - RS Tel: (53) 3231-1400
National Health Surveillance Agency ANVISA Marechal Floriano Street Tel: (53) 3232-3916	**Federal police** Rua General Osório, 512 - Centro - Rio Grande - RS Te..: (53) 3293-9000
Port Authority of Rio Grande do Sul CPRS Port Authority of the State of Rio Grande do Sul Rua AlmIrante Cerqueira e Souza, 198 Tel: (53) 3233-6119 E-mail: cprs.secom@marinha.mil.br	**Santa Casa de Misericórdia Hospital** Rua General Osório, 625 - Centro - Rio Grande - RS Tel: (53) 3231-3633
TRANSPETRO - PETROBRAS TRANSPORTE S/A Rio Grande Terminal - TERIG	
2nd Section of Barra - Píer Petroleiro - Distrito Industrial - Cep 96204-020 - Rio Grande - RS Tel: (53) 3234-3200	

11. DEFINITIONS

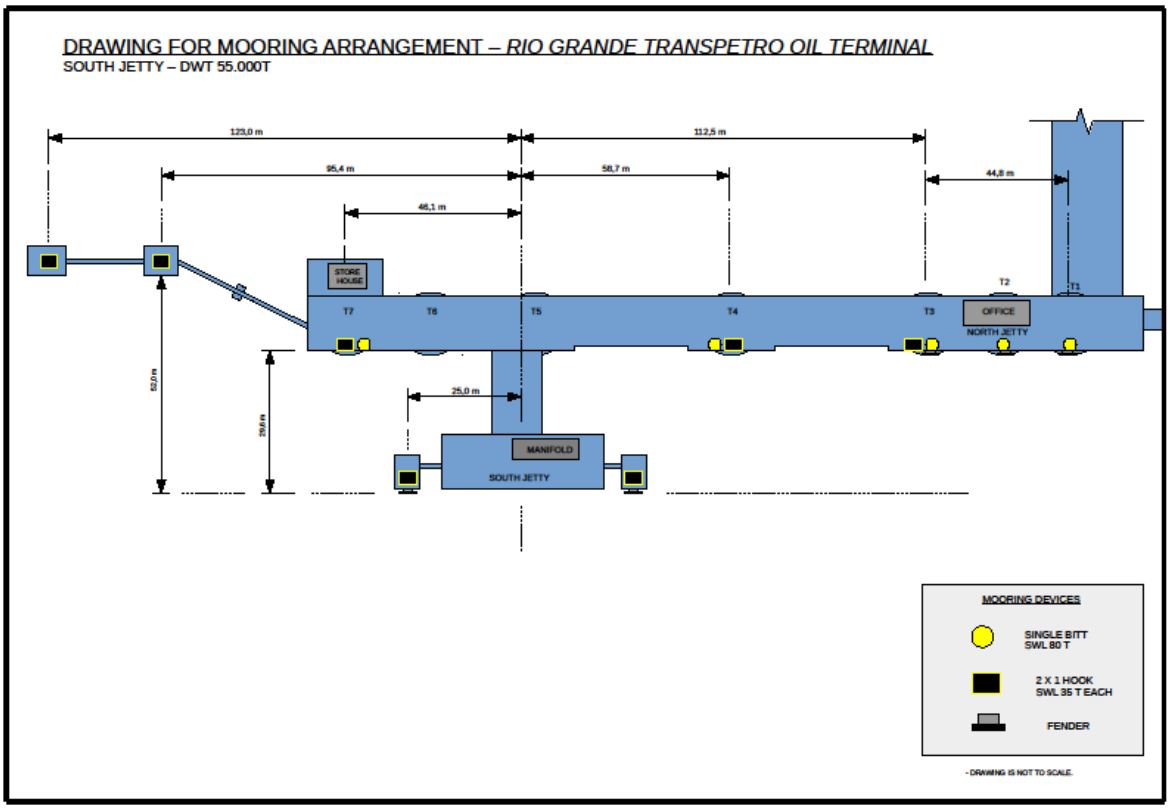
ANP - National Petroleum Agency.
BP (Bollard-Pull) - Static traction.
BTX - Benzene, Toluene and Xylene.
Bunker - Marine fuel for ships.
Port Authority - Maritime authority.
CIS - International Code of Signals.
COW (Crude Oil Washing) - Cleaning the ship's cargo tanks with the product it is carrying.
CRE - Emergency Response Center.
Squat effect - An increase in a ship's draft as a result of an increase in displacement speed.
Portal staircase - Straight metal structure with side balusters and handrails. The steps are self-leveling, according to the slope, and have a non-slip tread. This type of ladder is placed parallel to the side of the ship, from a retractable platform fixed to the deck.
Breakwater ladder - Flexible ladder made up of cables with wooden and/or rubber rungs in accordance with the Safety of Life at Sea (Solas) convention.
Beaufort Scale - A scale that measures wind intensity from the state of the sea.
ETA (Estimated Time of Arrival) - Estimated time of arrival.
FEPAM - State Foundation for Environmental Protection.
GIAONT - Ship/Terminal Operational Inspection and Monitoring Group.
IMO - International Marine Organization.
IBAMA - Brazilian Environmental Institute.
ISGOTT - International Safety Guide for Oil Tankers and Terminals.
ISPS (International Ship and Port Facility Code) - International Code for the Security of Ships and Port Facilities.
Quadrature tide - A small tide that follows the rising or waning quarter day.
Syzygy t ide - The greatest tidal amplitudes during the new and full moons, producing the highest high tides and the lowest low tides.
NPCP - Port Captaincy Standards and Procedures.
NT - Tanker.
OCIMF - (Oil Companies International Marine Forum) - International Oil Companies Forum.
ERP (EMERGENCY RESPONSE PLAN) - Emergency Response Plan.
Pilot - A professional duly qualified and authorized by the maritime authority to carry out maneuvers.
SIGTTO - (Society of International Gas Tanker & Terminal Operators) - International Society of Gas Tanker & Terminal Operators
Slop - Waste tank.
Safety of Life at Sea (Solas) -- International Convention dealing with the safeguarding of human life at sea.
SIGTTO - Society of International Gas Tanker and Terminal Operators
STCW - (Standards of Training, Certification and Watchkeeping) - International Convention for Standards of Training, Certification and Watchkeeping for Seafarers
SUPRG - Superintendence of the Port of Rio Grande, port authority.
DWT - Deadweight tonnage.
VHF (Very High Frequency) - Radio frequency used in maritime operations.
VTS (Vessel Traffic Service) - Vessel Traffic Service.

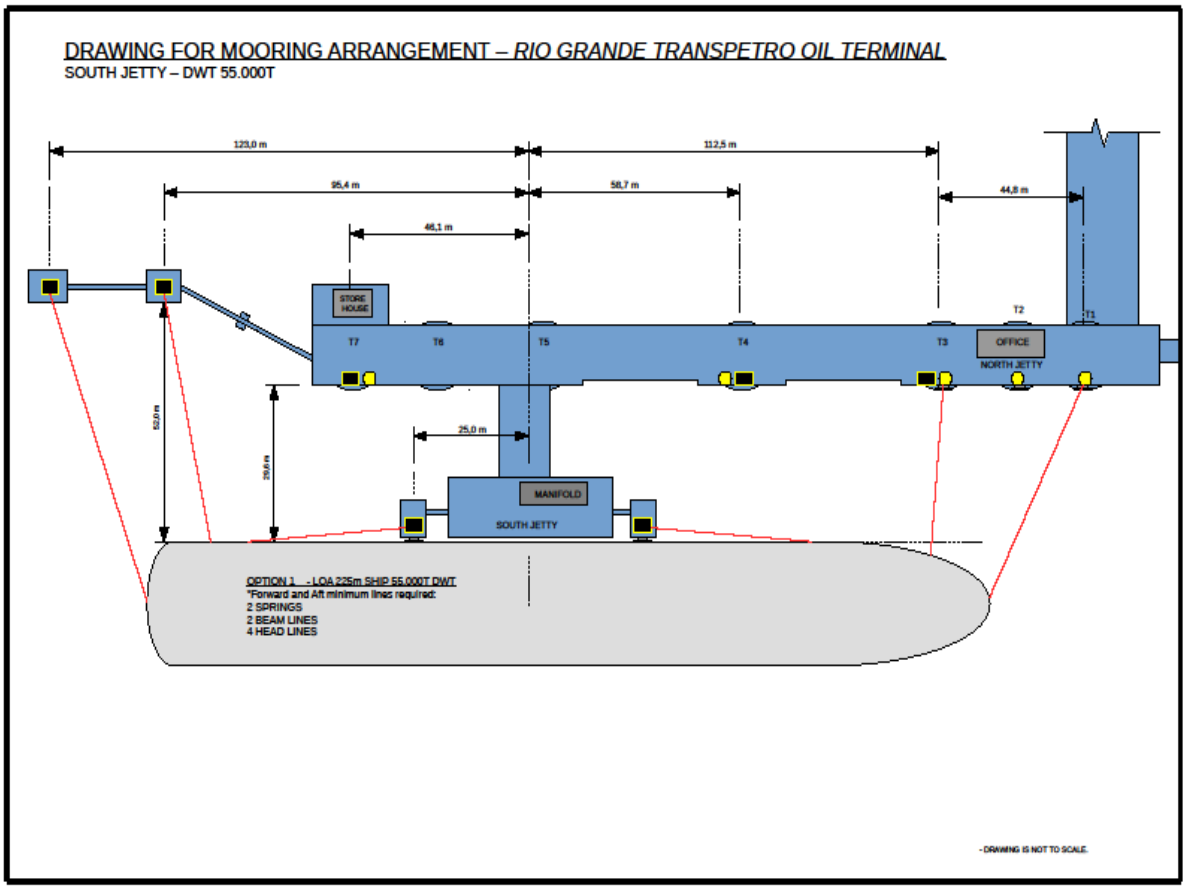
APPENDIXES

APPENDIX A - Chart Including Berths and Approaches

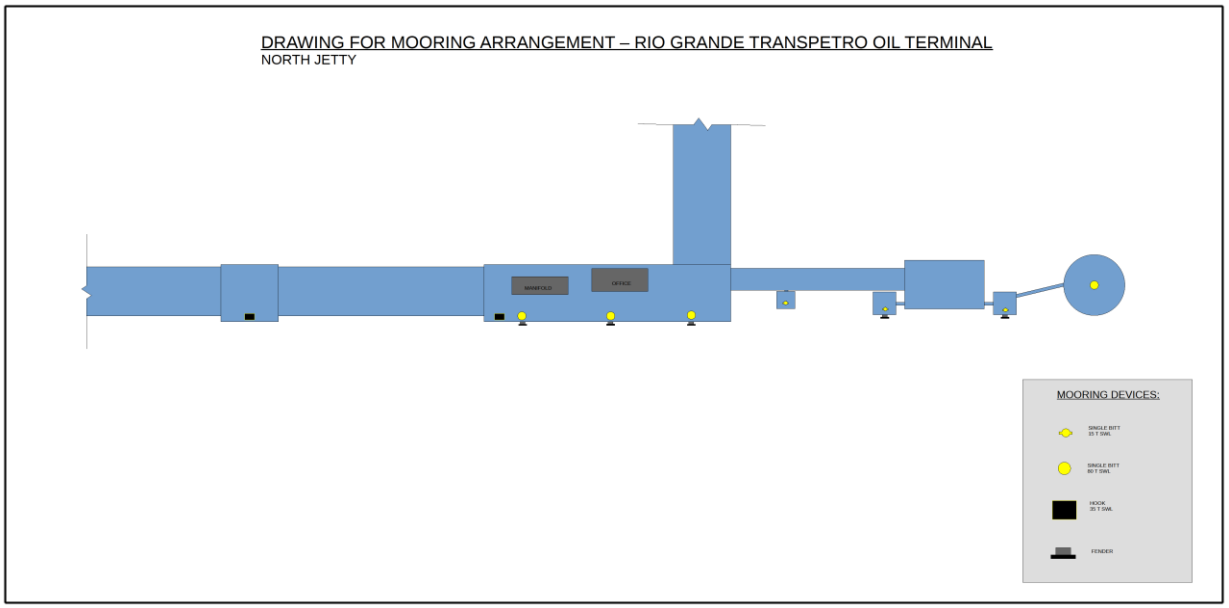


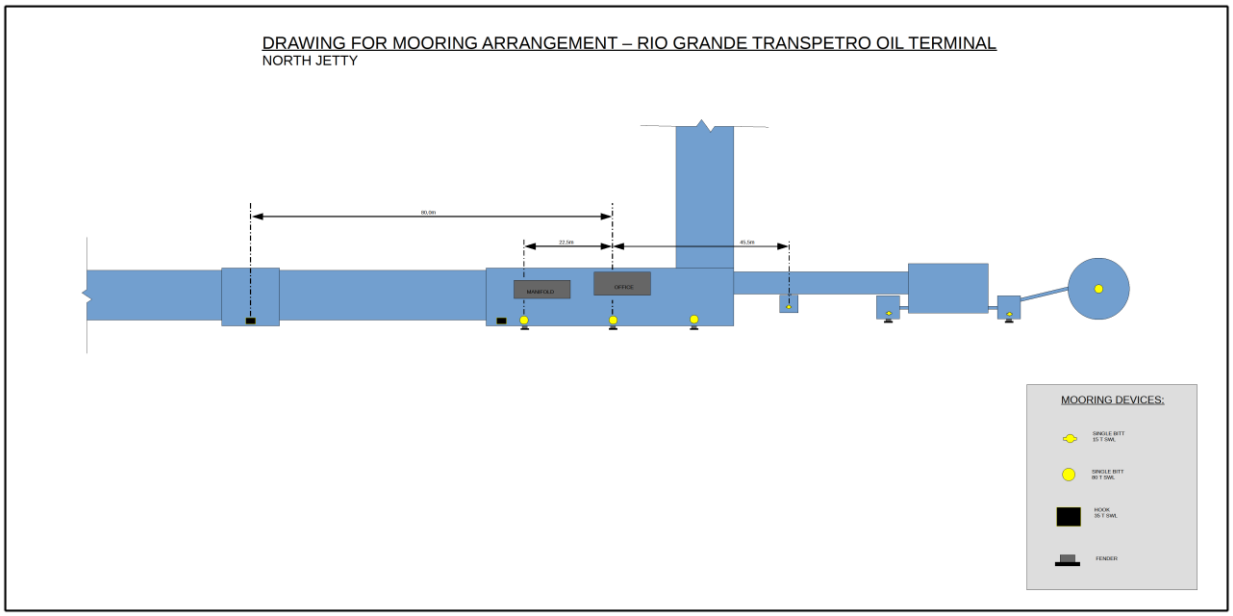
APPENDIX B - Berth diagram mooring at South Pier

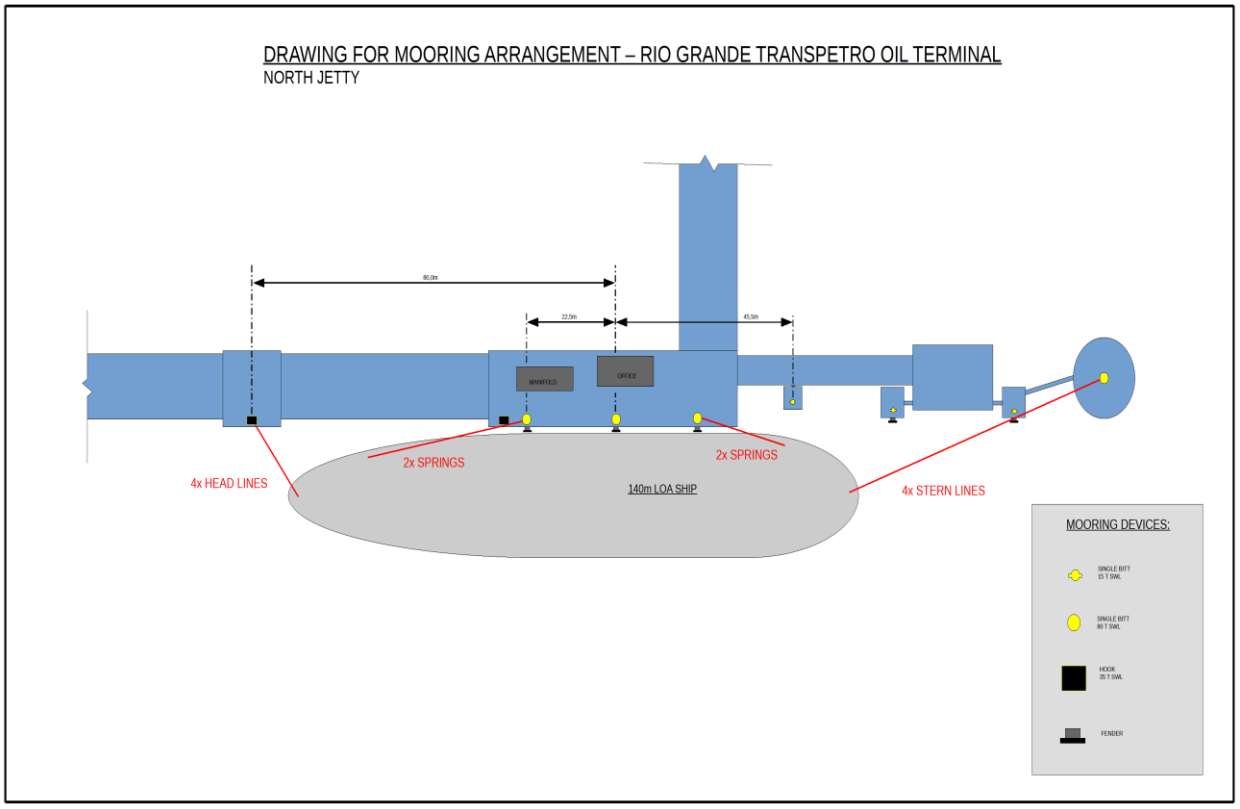



DRAWING FOR MOORING ARRANGEMENT – RIO GRANDE TRANSPETRO OIL TERMINAL
SOUTH JETTY – DWT 55.000T
123,0 m
112,5 m
95,4 m
58,7 m
44,8 m
46,1 m
STORE HOUSE
T7
T6
T5
T4
T3
T2
T1
OFFICE
NORTH JETTY
52,0 m
25,0 m
MANIFOLD
SOUTH JETTY
OPTION 1 - LOA 225m SHIP 55.000T DWT
*Forward and Aft minimum lines required:
2 SPRINGS
2 BEAM LINES
4 HEAD LINES
- DRAWING IS NOT TO SCALE.

APPENDIX C - Berth diagram mooring at North Pier






DRAWING FOR MOORING ARRANGEMENT – RIO GRANDE TRANSPETRO OIL TERMINAL
NORTH JETTY
80.0m
22.5m
45.5m
MANIFOLD
OFFICE
4x HEAD LINES
2x SPRINGS
2x SPRINGS
140m LOA SHIP
4x STERN LINES
MOORING DEVICES:
SINGLE BITT 35 T SWL
SINGLE BITT 80 T SWL
HOOK 35 T SWL
FENDER

APPENDIX D - Information Exchange Before the Ship Arrives at the Terminal

PETROBRAS TRANSPORTE S/A - TRANSPETRO RIO GANDE TERMINAL - TERIG RIO GRANDE - BRAZIL	
Ship Information Request	
Name of Ship:	Estimated time of arrival (ETA):
Flag:	Last port:
Commander's name:	Next Port:
Armorer:	Agents:
Does the ship have an inert gas system?	Oxygen content in cargo tanks:
Does the ship intend to wash with crude oil?	If the ship is to carry out COW, has the pre-arrival checklist been satisfactorily completed?
Displacement of the ship on arrival:	Length between perpendiculars:
Total length (LOA):	Maximum draft during transfer:
Manifold bow distance:	Freeboard on arrival:
Draft on arrival:	Draft on departure:
Propulsion	**Transverse propulsion**
Number of main engine: Number of propellers: Step type:	Bow (Quantity and Power): Stern (Quantity and Power):
Number and size of manifold outlets	**Maximum crane capacity (SWL)**
Loading schedule	
• Type and quantity:	(m^3)
• Type and quantity:	(m^3)
• Type and quantity:	(m^3)
Unloading schedule	
• Type and quantity:	(m^3)
• Type and quantity:	(m^3)
• Type and quantity:	(m^3)

APPENDIX E - Information to be exchanged before Load Transfer

Information between the ship and the terminal			
Name of ship: Trip number:		Berth: Date of docking:	
Contract data			
Number of pumps on board:			
Volumetric capacity 98%: **m^3**			
Guaranteed discharge pressure: (when unloading): **Kgf/cm^2**			
Ballasting/deballasting capacity simultaneous with loading/unloading:			
Travel information			
Type of charter (VCP, TCP, COA, etc):			
Type of trip (Cabotage/Long Haul):			
Ports or places of origin and destination:			
Did the ship request supplies?			
Means of communication between ship and terminal:			
Cargo information			
Product:	Quantity:	Temperature:	API:
WASTE - *SLOP*			
Quantity:	Temperature:	API:	
Fluidity:	Origin: Contaminants:		
Ballast			
Dirty ballast: Quantity: Temperature:		**Segregated ballast:** Quantity:	
Information about the operation			
For discharges: Will the ship carry out a special operation? (COW, Inertization, etc.)			
Estimated time for the special operation:			
Time needed to stop the pumps:			
For Loads:Time in advance for TOP notice:			
Flow for the TOP period:			
Quantity of ballast to be unloaded:			
Maximum flow rate allowed for deballasting:			
Are there any restrictions on electrostatic properties?			
Are there any restrictions on the use of self-closing valves?			

Ship and terminal conditions for loading and unloading products	
Vessel: Pressure: Outflow: **Temperature:** MAX: MIN:	**Terminal:** Pressure: Outflow: **Temperature:** MAX: MIN:
Sequence of operations by product	
Quantity to be loaded/unloaded: Origin / Destination Tanks: On-board / ground lines: Loading arms / hoses used: Forecast for start and end of operation:	