



# **Oil Companies International Marine Forum**

## **MTIS Programme**

### **Terminal TPQ**

**Terminal TPQ: Petrochemical Terminal - TPQ**

ReportName cacbb140-d3ce-4f6f-b7ff-69e26f0e3a6b

**Terminal Name: Petrochemical Terminal - TPQ**

**Terminal Port: Port of Sines**

**Terminal Port Authority: APS - Administration of Ports of  
Sines and Algarve, SA**

**Country: Portugal**

17 March 2016

## 1 General

1.1	Date this TPQ document was completed/updated	14 March 2016
1.2	Specify units used	Metres and Metric Tonnes

## 2 Port Details

2.1	Port Name	Port of Sines
2.2	UN LOCODE	PTSIE
2.3	Country	Portugal
2.4	Latitude and Longitude of Port	
1	Latitude	375657 North
2	Longitude	0085245 West
2.5	Is this location affected by ice?	No
2.6	Name of port authority	APS - Administration of Ports of Sines and Algarve, SA
2.7	Port authority contact name and title	Administration of Port of Sines-APS
2.8	Port authority full style contact address	
1	Address Line 1	APS-Administração do Porto de Sines
2	Address Line 2	Apartado 16,EC Sines
3	Address Line 3	7521-953 Sines
4	City	Sines
5	County/State	Portugal
6	Postcode/Zipcode	7521-953
7	Phone	351 269 860600
8	Fax	351 269 860690
9	Email	geral@portodesines.pt
10	Website	www.portodesines.pt

## 3 Terminal Details

3.1	Terminal name	Petrochemical Terminal - TPQ
3.2	Terminal owner	Repsol Polímeros, SA
3.2	Number of berths included in this TPQ	2
3.3	Name of first point of contact for terminal owner	Albino Manuel de Freitas Cunha
3.4	Terminal owner full style contact address	
1	Address Line 1	Repsol Polímeros, SA
2	Address Line 2	Apartado 41
3	Address Line 3	N/A
4	City	Sines
5	County/State	Portugal

6	Postcode/Zipcode	7520-954
7	Phone	+351 269860100
8	Fax	+351 269860117
9	Email	repsol.polimeros@repsol.com
10	Website	www.repsol.com
3.5	Terminal operator, if different from owner	Repsol Polímeros, SA
3.6	Name of first point of contact for terminal operator	Albino Manuel de Freitas Cunha
3.7	Terminal operator full style contact address	
1	Address Line 1	Bairro 350 fogos
2	Address Line 2	Vila Nova de Santo André
3	Address Line 3	Bloco 22 r/c Dto
4	City	Santiago do Cacém
5	County/State	Portugal
6	Postcode/Zipcode	7500-200
7	Phone	351 966778014
8	Fax	351 269 860131
9	Email	acunha@repsol.com
10	Website	www.repsol.com

#### 4 TPQ Accountability

4.1	Name and title of person completing this TPQ	Albino Cunha - Olefins Logistics Manager
4.2	Full style contact details of person completing this TPQ	
1	Address Line 1	Albino Manuel de Freitas Cunha
2	Address Line 2	Repsol Polímeros,SA
3	Address Line 3	Apartado 41
4	City	Sines
5	County/State	Portugal
6	Postcode/Zipcode	7500-954
7	Phone	351 966778014
8	Fax	351 269860131
9	Email	acunha@repsol.com

#### 5 Port Facility Security Officer Details

5.1	Does the port facility comply with the ISPS code?	
1		Yes
2	Port Facility Security Officer contact name	Manuel Machado Gonçalves Rey
5.2	Port Facility Security Officer full style contact details	
1	Address Line 1	Rua do Monte, lote 48
2	Address Line 2	Vila Nova de Santo André
3	Address Line 3	N/A
4	City	Vila Nova de Santo André

---

5	County/State	Portugal
6	Postcode/Zipcode	7500-110
7	Phone	351 968581954
8	Fax	351 269860143
9	Email	mrey@repsol.com

## 6 Operational Integrity Details

6.1	State details of any pre-arrival/operational clearance formalities for vessels	Under responsibility of Port Authorities for clearance formalities See: GUIDE FOR PORT ENTRY related to Port of Sines. Under Terminal operator responsibility: Vessel operational presentation conditions
6.2	Has the terminal completed an assessment using the standard industry process?	
1		Yes
2	If 'Yes', state date completed	31 January 2009
6.3	Additional comments or information	See port regulations in: <a href="http://www.portodesines.pt/pls/portal/go">http://www.portodesines.pt/pls/portal/go</a>



# Oil Companies International Marine Forum

## MTIS Programme

### Berth TPQ

**Berth TPQ: Berth 9**

ReportName d5d3f737-f2b1-46ea-af45-5f35b9b0be68

**Terminal Name: Petrochemical Terminal - TPQ**

**Terminal Port: Port of Sines**

**Terminal Port Authority: APS - Administration of Ports of  
Sines and Algarve, SA**

**Country: Portugal**

**Berth Name: Berth 9**

14 March 2016

## 1 Berth General

1.1	Berth name or number	Berth 9
1.2	Berth type	
1		Jetty - 'T' finger
2	If 'Other' please specify	As above
1.3	Terrestrial co-ordinates of manifold centreline	
1	Latitude	375657 North
2	Longitude	0085251 West
1.4	Berth users for liquid and gas cargoes	Repsol Polímeros, SA
1.5	Has a structural survey of the berth been undertaken, including its underwater structure?	
1		Yes
2	If 'Yes', state date of last survey	01 January 2009
1.6	Has an engineering (mooring and fendering) analysis of berth been undertaken?	
1		Yes
2	If 'Yes', state date of last analysis	01 January 2009
1.7	Additional comments or information	Structural surveys are periodically performed by Port Administration

## 2 Berth Approaches

2.1	Is pilotage compulsory?	
1		Yes
2	If 'Yes', state if any vessels are exempted	No exemptions
2.2	State distance from pilot station(s) to berth	4500 meters
2.3	Is a waiting anchorage available?	
1		Yes
3	If 'Yes', state distance from waiting anchorage to berth	<p>Anchorage locations:  Anchorage areas:  Area A1: Lat. 37° 55.8' N Long. 008° 52.1' W  Area A2: Lat. 37° 55.2' N Long. 008° 52.1' W  Area A3: Lat. 37° 55.2' N Long. 008° 51.3' W  Area B1: Lat. 37° 54.6' N Long. 008° 52.1' W  Area B2: Lat. 37° 54.6' N Long. 008° 51.3' W  Area B3: Lat. 37° 54.0' N Long. 008° 51.7' W  Area B4: Lat. 37° 53.6' N Long. 008° 52.3' W</p>
2.4	Controlling depth of water for transit to and from berth	
1	Water depth	10.00 Metres

2	State datum used	Mean Lower Low Water (MLLW)
3	If 'Other' please specify datum	As above
2.5	Date of latest survey from which transit depth has been determined	01 January 2009
2.6	Date next survey is due	01 January 2020
2.7	State Maximum Tidal Range in berth approaches	3.00
2.8	Is laden transit to and/or from the berth conducted using the tide?	
1		No
2	If 'Yes', state optimum transit window (i.e. at High Water, HW +/- 1 hr)	No
2.9	State details of any specific berthing and/or unberthing restrictions	None
2.10	Minimum under keel clearance (UKC) in berth approaches	
1	Value	1.20 Meters
2	Percentage	10.00 Vessel static draft
3	Specify other UKC criterion where applicable	10% of draught
2.11	Absolute maximum draught in berth approaches, if applicable	10.00
2.12	State minimum vertical clearance of any bridges/power cables/vertical obstructions	
1	Vertical clearance	999.00 Metres
2	State datum used	Chart Datum (CD)
3	If 'Other' specify other datum used	As above
4	Further details	No Applicable as no bridges or vertical obstructions.
2.13	Does the port require tankers and gas carriers to be escorted by tugs?	
1		No
2	If 'Yes', state whether Active or Passive escort is employed and the maximum towline force that the tug is able to generate	Not required.
2.14	Additional comments or information	Open atlantic harbour without above structures

### 3 Water Depth Alongside

3.1	Minimum controlled water depth alongside berth at chart datum	
1	Water depth	9.00 Metres
2	State datum used	Mean Lower Low Water (MLLW)
3	If 'Other' specify datum	As above
3.2	Date of latest survey from which alongside depth has been determined	01 January 2009
3.3	Date next survey is due	01 January 2020
3.4	Minimum static under keel clearance (UKC) alongside berth	
1	Value	2.00 Meters
2	Percentage	10.00 Depth of water
3	Specify other UKC criterion where applicable	20% of draught
3.5	State range of water densities at berth	

1	From	1025.00
2	To	1025.00
3	Further details	None
3.6	Type of bottom alongside berth	
1		Rock
2	If 'Other' please specify	As above
3.7	Absolute maximum draft alongside, if applicable	10.00
3.8	State maximum tidal range at berth, if applicable	3.60
3.9	Are 'over-the-tide' cargo handling operations permitted at the berth?	No
3.10	Does the berth location experience water-level anomalies?	
1		No
2	Provide details	Normal
3.11	Additional comments or information	None

#### 4 Limiting Vessel Dimensions

4.1	Summer deadweight	
1	TPQ NA Selector	Applicable
2	Minimum	3000.00 Metric Tonnes
3	Maximum	12000.00 Metric Tonnes
4.2	Berthing displacement	
1	TPQ NA Selector	No restrictions
2	Minimum	0.00
3	Maximum	0.00
4.3	Alongside displacement	
1	TPQ NA Selector	No restrictions
2	Minimum	0.00
3	Maximum	0.00
4.4	State any deadweight/displacement exceptions	
1	TPQ NA Selector	Not applicable
2		No exception
4.5	Cubic capacity (gas carriers)	
1	TPQ NA Selector	Applicable
2	Minimum	3000.00 Cubic metres
3	Maximum	12000.00 Cubic metres
4.6	Length over all (LOA)	
1	TPQ NA Selector	Applicable
2	Minimum	78.00 Metres
3	Maximum	160.00 Metres
4.7	Beam	



1	TPQ NA Selector	No restrictions
2	Minimum	0.00
3	Maximum	0.00
4.8	Minimum parallel body length (PBL)	
1	TPQ NA Selector	No restrictions
2		0.00
4.9	Minimum PBL forward of manifold	
1	TPQ NA Selector	No restrictions
2		0.00
4.10	Minimum PBL aft of manifold	
1	TPQ NA Selector	No restrictions
2		0.00
4.11	Bow to centre of manifold (BCM)	
1	TPQ NA Selector	Applicable
2	Minimum	45.00 Metres
3	Maximum	85.00 Metres
4.12	Stern to centre of manifold (SCM)	
1	TPQ NA Selector	Applicable
2	Minimum	45.00 Metres
3	Maximum	85.00 Metres
4.13	Freeboard	
1	TPQ NA Selector	No restrictions
2	Minimum	0.00
3	Maximum	0.00
4.14	Manifold height above water	
1	TPQ NA Selector	Applicable
2	Minimum	2.00 Metres
3	Maximum	14.10 Metres
4.15	Manifold to shipside rail distance	
1	TPQ NA Selector	Applicable
2	Minimum	1.00 Metres
3	Maximum	5.00 Metres
4.16	Height of manifold above deck or drip tray	
1	TPQ NA Selector	Applicable
2	Minimum	0.70 Metres
3	Maximum	1.20 Metres
4	Specify whether height is from the deck or the drip tray	height from drip tray should be considered
4.17	Manifold spacing	
1	TPQ NA Selector	No restrictions
2	Minimum	0.00 Metres

3	Maximum	0.00 Metres
4.18	Maximum air draft alongside	
1	TPQ NA Selector	No restrictions
2		0.00
4.19	Vessel's minimum derrick/crane Safe Working Load (SWL)	
1	TPQ NA Selector	Not applicable
2		0.00
4.20	Additional comments or information	None

## 5 Mooring and Berthing Information

5.1	State availability and specifications of tugs and mooring craft required for berthing and/or unberthing.	For berthing: 2 Tugs (Máx. Traction 60 t) + 2 boats  For unberthing: 2 Tugs (Máx. Traction 60 t).  Pilots could required additional means depending of weather / sea conditions an DWT.
5.2	Are ship's or tug's lines used?	
1	Ship/Tug	Tug's Lines
2	Comments	As per pilot instructions
5.3	Type of fenders installed at berth	
1		Pneumatic Floating Fenders
2	If 'Other' please specify	As above
5.4	State orientation of vessel alongside berth	Port Side To
5.5	At buoy moorings, state which side hose is normally connected	
1		Not applicable
2	If 'Other' please specify	No buoy moorings
5.6	Minimum mooring arrangement	As per Pilot instructions. Usually 2+2+2
5.7	Describe any additional mooring requirements	None
5.8	Are there any restrictions using wire mooring ropes?	
1		Yes
2	If 'yes', provide details of restrictions in wire moorings as part of the mooring pattern	Not allowed
5.9	Are there any restrictions using synthetic mooring ropes?	
1		No
2	If 'yes'; provide details of restrictions in synthetic mooring ropes as part of the mooring pattern	They should be in good condition.
5.10	Are there any restrictions on using high modulus synthetic mooring ropes?	
1		No
2	If 'yes' provide details	They should be in good condition.

5.11	Details of any specific mooring equipment required for any vessel utilising the berth	None
5.12	Does the terminal require the vessel to rig Emergency Towing Off Pennants (ETOPs) while at the berth?	
1		Yes
2	If 'Yes', provide details of particular requirements regarding ETOPs.	As per Port Guidelines
5.13	Details of any shore-provided mooring equipment	None
5.14	Are berthing aids provided?	
1		No
2	If 'Yes', state type of aids	Not installed.
5.15	State allowable speed of approach if applicable	
1		As per pilot instructions
1		0.20 Km/h
5.16	Is a mooring tension monitor fitted?	No
5.17	Are mooring hook quick release arrangements provided?	Yes
5.18	Chain stopper requirements	
1	Applicable	No
2		Not an SPM
5.19	Largest ship handled at berth to date	No records kept
5.20	Additional comments or information	None

## 6 Berth Equipment and Facilities

6.1	Number, type and size of cargo transfer connections	3 loading arms 8"-150 ASA Hose to purging and flare out operations: 4" - 150 ASA
6.2	List grades handled at berth	Chemical Gases, Commercial LPG, Ethanol/Ethanol Gasoline Blends
2	State specific grades handled at berth (e.g. Ekofisk crude oil, Unleaded Gasoline, Jet A1).	Petrochemical products: Propylene Pygas Butadiene Rafinate 1 Butane Crude C4 Propane
6.3	State transfer rate restrictions and back pressure for each cargo grade	Propylene: 800 m3/h Butadiene: 450 m3/h Pygas: 450 m3/h C4#: 100 m3/h Propane: 500 m3/h
6.4	Are transfer connections fitted with insulation flanges?	
1		Yes
2	Provide details	FMC Loading arm with insulated flange between external tube and connection style.

6.5	State storage type for LPG	Refrigerated
6.6	Describe any terminal-specific requirements for vessel manifolds	Connection size loading arm / manifold: 8" - 150 ASA
6.7	Is berth fitted with a vapour manifold connection?	
1		Yes
2	If 'Yes' state type and size of vapour connection	Hose flanged size 4" - 150 ASA
3	State cargo types for which it is required to use vapour connection (if applicable)	To return vapors to flare applicable to load liquids with flash point below 65 °C and purging and gassing up operations
6.8	State throughput rate(s) of vapour recovery system	Berth have a vapor recovery system for burning oxidation in flare. Rate applicable to load liquids: 700 m3/h Rate applicable to gases (gassing and purging): 1000 m3/h
6.9	Are Powered Emergency Release Couplings (PERCS) installed to the cargo transfer arms?	
1		Yes
2	Supply details	FMC loading arms with ERS.
6.10	Does the berth have an emergency shutdown (ESD) capability that can be activated by the ship?	
1		No
2	If 'yes' provide details	
6.11	Describe access arrangements between ship and shore.	Ship gangway. Shore gangway available if requested by ship
6.12	Does the berth have pollution response equipment?	
1		Yes
2	If 'yes' provide details	Under responsibility of APS Safety and Environmental department. Repsol pay a "fee" as well as other Port Operators.
6.13	Additional comments or information	
<b>7</b>	<b>Berth Operations</b>	
7.1	What is the primary and backup communication system between ship and terminal during cargo operations?	Radio VHF and berth operator all time as backup.
7.2	Is it required that terminal or shore representatives stay on board during operations?	
1		No
2	If 'Yes', state requirements including number of persons and their roles	
7.3	Specify weather/environmental restrictions for stopping cargo operations, disconnecting hoses or arms and vacating the berth?	Reference data applicable: Waves > 4 meters conjugated with wave period > 10 seconds and direction of wave Nw to Sud stop cargo operations. If vessel broke more than one rope loading arm is disconnected. Vessel left pier for Captain request.
7.4	Are there any restrictions regarding tank cleaning/Crude Oil Washing (COW) operations at the berth?	

1		Yes
2	If 'Yes' provide full details of these restrictions	See port regulations in: <a href="http://www.portodesines.pt/pls/portal/go">http://www.portodesines.pt/pls/portal/go</a>
7.5	Are there any berth specific requirements regarding tanker inerting procedures?	
1		Yes
2	If 'Yes', state requirements	Volatile products under inert condition at all times.
7.6	Is there a temperature limit for cargo handled?	
1		No
2	If 'Yes', state temperature limits	
7.7	Is it permitted for vessels to undertake double-banked operations alongside the berth?	
1		No
2	If 'Yes', state limiting criteria	
7.8	Is vessel required to pump water ashore or receive water on board for line clearance purposes?	
1		No
2	If 'Yes', provide operational details	
7.9	Can the berth be used for Ship-to-Ship transfers using terminal facilities?	
1		Yes
2	Provide details	Under previous requested and after risk analysis performed.
7.10	State details regarding any environmental restrictions applicable at the berth	See Port Authorities Regulations
7.11	Are there any restrictions regarding Hydrogen Sulphide content in Cargo Tanks?	
1		Yes
2	If 'Yes', state restriction	Not allowed
7.12	Are there any restrictions regarding Mercaptan content in Cargo Tanks?	
1		No
2	If 'Yes', state restriction	
7.13	Are there any restrictions on handling stores when a ship is moored alongside berth?	
1		Yes
2	If 'Yes', state restriction	Restrictions only during cargo operations. Other restrictions: See <a href="http://www.portodesines.pt/pls/portal/go">http://www.portodesines.pt/pls/portal/go</a> or contact Agente
7.14	Additional comments or information	
<b>8</b>	<b>Available Services</b>	
8.1	Are Fuel Oil bunkers available?	
1		Yes
2	If 'Yes', state how delivered (e.g. Ex-Pipe, barge, truck)	By pipe - connection to ship by hose

8.2	Are Diesel Oil bunkers available?	
1		Yes
2	If 'Yes', state how delivered (e.g. Ex-Pipe, barge, truck)	By pipe - connection to ship by hose
8.3	Are Intermediate Oil bunkers available?	
1		No
2	If 'Yes', state how delivered (e.g. Ex-Pipe, barge, truck)	
8.4	Is fresh water available?	
1		Yes
2	If 'Yes', state how delivered (e.g. Ex-Pipe, barge, truck)	By pipe - connection to ship by hose
8.5	Are slop reception facilities available?	
1		Yes
2	If 'Yes', state how received (e.g. Ex-Pipe, barge, truck)	By pipe - connection to ship by hose
3	State capacity of slop reception facilities (if applicable)	100.00 Cubic metres
4	State any specific exclusions for slop receipts (e.g. chemicals, detergents, cleaning agents)	None
8.6	Are dirty ballast reception facilities available?	
1		No
2	If 'Yes', state how received	
3	State capacity of dirty ballast reception facilities	
8.7	Are engine room sludge and bilge reception facilities available?	
1		Yes
2	If 'Yes', state how received (e.g. Ex-pipe, barge, truck)	By pipe - connection to ship by hose
8.8	Are garbage reception facilities available at the berth.	
1		Yes
2	If 'Yes', provide details	Service done by a concessionary.
8.9	Additional comments or information	All the services to supply bunkers and receive slops to be requested by Agent before arrival. Jetty are available a nitrogen and flare facilities

## 9 Berth Low Temperature Impact

9.1	What is the typical range of temperatures the terminal operates in during a winter season?	
9.2	Which months of the year can ice be expected?	
9.3	Specify any terminal requirements for vessel Ice Class notation and winterisation capabilities	
9.4	State any limitations for cargo operations in sub-zero temperatures	
9.5	State the minimum allowable ambient temperature for safe cargo operations	
9.6	State the minimum temperature of cargoes handled	
9.7	State the minimum temperature for the emergency shut-down system to operate safely	

9.8 Does the terminal have its own resources for conducting icebreaker escort

- 1
- 2 If 'Yes' provide details and specify how they can be requested

9.9 Are there icebreakers available to operate in the terminal area

- 1
- 2 Specify details (e.g. Name/IMO Nr/GRT/Power/Ice Class)

9.10 Does the terminal have ice-capable tugs and support craft

- 1
- 2 Specify details (e.g. Name/IMO Nr/GRT/Power/Ice Class)

9.11 Does the terminal have specific requirements for the vessel speed and manoeuvrability characteristics in ice?

- 1
- 2 If 'Yes', provide details

9.12 Does the terminal provide its own ice navigator/advisor?

- 1
- 2 If 'Yes', provide details of how the service may be requested

9.13 Additional comments or information

## 10 Supplementary Information

10.1 Berth transparency

The berth is a solid concrete one but open to pontualy swell effects mainly from SW.

10.2 Specify datum used for height and depth measurements in this section

- 1 Mean Lower Low Water (MLLW)
- 2 If 'Other' please specify other

10.3 Berth height above datum

1.90

10.4 Berth heading

Fender/berthing line direction is 001° East. Vessels safe berthing side is portside (bow to South). Only exceptionally Port Authorities allow berthing by starboard (evaluated case by case)

10.5 Width of the channel adjacent to the berth

10.6 Position of mooring bollards and hooks

10.7 Position of mooring buoys

Mooring Buoy ID Number	'x' Distance to Target Line F & A (m)	'y' Distance to Target Line athwart (m)	Height (m)	Max. Allow Load (tonnes)
N/A	0.00	0.00	0.00	0.00

10.8 Fender Location

10.9 Fender Reaction Data

10.10 Fender friction coefficient ( $\mu$ )

10.11 State identity and horizontal position of loading arms

---

10.12 State loading arm operating limits

10.13 Additional comments or information

None





# **Oil Companies International Marine Forum**

## **MTIS Programme**

### **Berth TPQ**

**Berth TPQ: Berth 10**

ReportName bddf1fc2-ead5-450b-af0c-e4f36c18ebfb

**Terminal Name: Petrochemical Terminal - TPQ**

**Terminal Port: Port of Sines**

**Terminal Port Authority: APS - Administration of Ports of  
Sines and Algarve, SA**

**Country: Portugal**

**Berth Name: Berth 10**

14 March 2016

## 1 Berth General

1.1	Berth name or number	Berth 10
1.2	Berth type	
1		Jetty - 'T' finger
2	If 'Other' please specify	
1.3	Terrestrial co-ordinates of manifold centreline	
1	Latitude	375657 North
2	Longitude	0085242 West
1.4	Berth users for liquid and gas cargoes	Repsol Polímeros, SA - Under private use concession
1.5	Has a structural survey of the berth been undertaken, including its underwater structure?	
1		Yes
2	If 'Yes', state date of last survey	01 January 2009
1.6	Has an engineering (mooring and fendering) analysis of berth been undertaken?	
1		Yes
2	If 'Yes', state date of last analysis	01 January 2009
1.7	Additional comments or information	The maritime structures are responsibility of Administration of the Port of Sines. 2009 is the date of last Survey.

## 2 Berth Approaches

2.1	Is pilotage compulsory?	
1		Yes
2	If 'Yes', state if any vessels are exempted	No exemptions
2.2	State distance from pilot station(s) to berth	4500 meters
2.3	Is a waiting anchorage available?	
1		Yes

3	If 'Yes', state distance from waiting anchorage to berth	Anchorage locations: Anchorage areas: Area A1: Lat. 37° 55.8' N Long. 008° 52.1' W Area A2: Lat. 37° 55.2' N Long. 008° 52.1' W Area A3: Lat. 37° 55.2' N Long. 008° 51.3' W Area B1: Lat. 37° 54.6' N Long. 008° 52.1' W Area B2: Lat. 37° 54.6' N Long. 008° 51.3' W Area B3: Lat. 37° 54.0' N Long. 008° 51.7' W Area B4: Lat. 37° 53.6' N Long. 008° 52.3' W Area B5: Lat. 37° 53.6' N Long. 008° 50.9' W Area C: Lat. 37° 56.8' N Long. 008° 52.2' W
2.4	Controlling depth of water for transit to and from berth	
1	Water depth	10.00 Metres
2	State datum used	Other (Specify)
3	If 'Other' please specify datum	Date of construction
2.5	Date of latest survey from which transit depth has been determined	01 January 2009
2.6	Date next survey is due	01 January 2020
2.7	State Maximum Tidal Range in berth approaches	3.60
2.8	Is laden transit to and/or from the berth conducted using the tide?	
1		No
2	If 'Yes', state optimum transit window (i.e. at High Water, HW +/- 1 hr)	
2.9	State details of any specific berthing and/or unberthing restrictions	None. In accordance to characteristics for a safety berth conditions.
2.10	Minimum under keel clearance (UKC) in berth approaches	
1	Value	200.00 Centimeters
2	Percentage	10.00 Vessel static draft
3	Specify other UKC criterion where applicable	10% of draught
2.11	Absolute maximum draught in berth approaches, if applicable	11.00
2.12	State minimum vertical clearance of any bridges/power cables/vertical obstructions	
1	Vertical clearance	999.00 Metres
2	State datum used	Chart Datum (CD)
3	If 'Other' specify other datum used	
4	Further details	N/A
2.13	Does the port require tankers and gas carriers to be escorted by tugs?	
1		No
2	If 'Yes', state whether Active or Passive escort is employed and the maximum towline force that the tug is able to generate	

2.14 Additional comments or information

### 3 Water Depth Alongside

3.1 Minimum controlled water depth alongside berth at chart datum

1	Water depth	10.00 Metres
2	State datum used	Mean Lower Low Water (MLLW)
3	If 'Other' specify datum	

3.2 Date of latest survey from which alongside depth has been determined 01 January 2009

3.3 Date next survey is due 01 January 2020

3.4 Minimum static under keel clearance (UKC) alongside berth

1	Value	1.00 Meters
2	Percentage	9.00 Vessel static draft
3	Specify other UKC criterion where applicable	None

3.5 State range of water densities at berth

1	From	1025.00
2	To	1025.00
3	Further details	None

3.6 Type of bottom alongside berth

1		Rock
2	If 'Other' please specify	

3.7 Absolute maximum draft alongside, if applicable 11.00

3.8 State maximum tidal range at berth, if applicable 3.60

3.9 Are 'over-the-tide' cargo handling operations permitted at the berth? No

3.10 Does the berth location experience water-level anomalies?

1		No
2	Provide details	

3.11 Additional comments or information None.

### 4 Limiting Vessel Dimensions

4.1 Summer deadweight

1	TPQ NA Selector	Applicable
2	Minimum	3000.00 Metric Tonnes
3	Maximum	20000.00 Metric Tonnes

4.2 Berthing displacement

1	TPQ NA Selector	No restrictions
2	Minimum	0.00
3	Maximum	0.00

4.3 Alongside displacement

1	TPQ NA Selector	No restrictions
---	-----------------	-----------------

2	Minimum	0.00
3	Maximum	0.00
4.4	State any deadweight/displacement exceptions	
1	TPQ NA Selector	Not applicable
2		No exception
4.5	Cubic capacity (gas carriers)	
1	TPQ NA Selector	Applicable
2	Minimum	3000.00 Cubic metres
3	Maximum	20000.00 Cubic metres
4.6	Length over all (LOA)	
1	TPQ NA Selector	Applicable
2	Minimum	78.00 Metres
3	Maximum	172.00 Metres
4.7	Beam	
1	TPQ NA Selector	No restrictions
2	Minimum	0.00
3	Maximum	0.00
4.8	Minimum parallel body length (PBL)	
1	TPQ NA Selector	No restrictions
2		0.00
4.9	Minimum PBL forward of manifold	
1	TPQ NA Selector	No restrictions
2		0.00
4.10	Minimum PBL aft of manifold	
1	TPQ NA Selector	No restrictions
2		0.00
4.11	Bow to centre of manifold (BCM)	
1	TPQ NA Selector	Applicable
2	Minimum	45.00 Metres
3	Maximum	85.00 Metres
4.12	Stern to centre of manifold (SCM)	
1	TPQ NA Selector	Applicable
2	Minimum	45.00 Metres
3	Maximum	85.00 Metres
4.13	Freeboard	
1	TPQ NA Selector	No restrictions
2	Minimum	0.00
3	Maximum	0.00
4.14	Manifold height above water	
1	TPQ NA Selector	Applicable

2	Minimum	2.00 Metres
3	Maximum	14.10 Metres
4.15	Manifold to shipside rail distance	
1	TPQ NA Selector	Applicable
2	Minimum	1.00 Metres
3	Maximum	5.00
4.16	Height of manifold above deck or drip tray	
1	TPQ NA Selector	Applicable
2	Minimum	0.70 Metres
3	Maximum	1.20 Metres
4	Specify whether height is from the deck or the drip tray	Free lenght to connect loading arm to ships manifold
4.17	Manifold spacing	
1	TPQ NA Selector	No restrictions
2	Minimum	0.00 Metres
3	Maximum	0.00 Metres
4.18	Maximum air draft alongside	
1	TPQ NA Selector	Not applicable
2		0.00
4.19	Vessel's minimum derrick/crane Safe Working Load (SWL)	
1	TPQ NA Selector	Not applicable
2		0.00
4.20	Additional comments or information	None.

## 5 Mooring and Berthing Information

5.1	State availability and specifications of tugs and mooring craft required for berthing and/or unberthing.	For berthing: 2 Tugs (Máx. Traction 60 t) + 2 boats  For unberthing: 2 Tugs (Máx. Traction 60 t).  Pilots could required aditional means depending of weather / sea conditions an DWT.
5.2	Are ship's or tug's lines used?	
1	Ship/Tug	Tug's Lines
2	Comments	As per pilots instructions
5.3	Type of fenders installed at berth	
1		Pneumatic Floating Fenders
2	If 'Other' please specify	As above
5.4	State orientation of vessel alongside berth	Port Side To
5.5	At buoy moorings, state which side hose is normally connected	
1		Not applicable

2	If 'Other' please specify	Not a buoy mooring system
5.6	Minimum mooring arrangement	As per pilot instructions. Usually 2+2+2
5.7	Describe any additional mooring requirements	None
5.8	Are there any restrictions using wire mooring ropes?	
1		Yes
2	If 'yes', provide details of restrictions in wire moorings as part of the mooring pattern	Not allowed
5.9	Are there any restrictions using synthetic mooring ropes?	
1		No
2	If 'yes'; provide details of restrictions in synthetic mooring ropes as part of the mooring pattern	Must be in good condition
5.10	Are there any restrictions on using high modulus synthetic mooring ropes?	
1		No
2	If 'yes' provide details	Must be in good condition.
5.11	Details of any specific mooring equipment required for any vessel utilising the berth	None
5.12	Does the terminal require the vessel to rig Emergency Towing Off Pennants (ETOPs) while at the berth?	
1		Yes
2	If 'Yes', provide details of particular requirements regarding ETOPs.	As per Port Guidelines
5.13	Details of any shore-provided mooring equipment	None
5.14	Are berthing aids provided?	
1		No
2	If 'Yes', state type of aids	Not available
5.15	State allowable speed of approach if applicable	
1		As per pilot instructions.
1		0.20
5.16	Is a mooring tension monitor fitted?	No
5.17	Are mooring hook quick release arrangements provided?	Yes
5.18	Chain stopper requirements	
1	Applicable	No
2		Not an SBM!
5.19	Largest ship handled at berth to date	No records kept
5.20	Additional comments or information	None.
<b>6 Berth Equipment and Facilities</b>		
6.1	Number, type and size of cargo transfer connections	3 loading arms 8"-150 ASA Hose to purging and flare out operations: 4" - 150 ASA
6.2	List grades handled at berth	Chemical Gases, Commercial LPG, Ethanol/Ethanol Gasoline Blends

2	State specific grades handled at berth (e.g. Ekofisk crude oil, Unleaded Gasoline, Jet A1).	Petrochemical products: Etileno MTBE/ETBE Ethanol/Methanol Pygas C4#
6.3	State transfer rate restrictions and back pressure for each cargo grade	Ethylene: 800 m3/h Pygas: 450 m3/h MTBE/ETBE: 600 m3/h C4#: 100 m3/h Propane: 500 m3/h
6.4	Are transfer connections fitted with insulation flanges?	Yes
1		
2	Provide details	FMC Loading arm with insulated flange between external tube and connection style.
6.5	State storage type for LPG	Refrigerated
6.6	Describe any terminal-specific requirements for vessel manifolds	Connection size loading arm / manifold: 8" - 150 ASA
6.7	Is berth fitted with a vapour manifold connection?	Yes
1		
2	If 'Yes' state type and size of vapour connection	Hose flanged size 4" - 150 ASA
3	State cargo types for which it is required to use vapour connection (if applicable)	To return vapors to flare applicable to load liquids with flash point bellow 65 °C and purging and gassing up operations
6.8	State throughput rate(s) of vapour recovery system	Berth have a vapour return system to flare for burning oxidation. Rate applicable to load liquids: 700 m3/h Rate applicable to gases (gassing and purging): 1000 m3/h
6.9	Are Powered Emergency Release Couplings (PERCS) installed to the cargo transfer arms?	Yes
1		
2	Supply details	FMC loading arms with ERS.
6.10	Does the berth have an emergency shutdown (ESD) capability that can be activated by the ship?	No
1		
2	If 'yes' provide details	
6.11	Describe access arrangements between ship and shore.	Ship gangway. Shore gangway available if requested and accepted by ship .
6.12	Does the berth have pollution response equipment?	Yes
1		
2	If 'yes' provide details	Under responsibility of APS Safety and Environmental department. Repsol pay a "fee" as well as other Port Operators.
6.13	Additional comments or information	None



## 7 Berth Operations

7.1	What is the primary and backup communication system between ship and terminal during cargo operations?	Radio VHF and berth operator all time as backup.
7.2	Is it required that terminal or shore representatives stay on board during operations?	
1		No
2	If 'Yes', state requirements including number of persons and their roles	
7.3	Specify weather/environmental restrictions for stopping cargo operations, disconnecting hoses or arms and vacating the berth?	Reference data applicable: Waves > 4 meters conjugated with wave period > 10 seconds and direction of wave Nw to Sud stop cargo operations. If vessel broke more than one rope loading arm is disconnected. Vessel left pier for Captain request.
7.4	Are there any restrictions regarding tank cleaning/Crude Oil Washing (COW) operations at the berth?	
1		Yes
2	If 'Yes' provide full details of these restrictions	See port regulations in: <a href="http://www.portodesines.pt/pls/portal/go">http://www.portodesines.pt/pls/portal/go</a>
7.5	Are there any berth specific requirements regarding tanker inerting procedures?	
1		Yes
2	If 'Yes', state requirements	Volatile products under inert condition at all times.
7.6	Is there a temperature limit for cargo handled?	
1		No
2	If 'Yes', state temperature limits	
7.7	Is it permitted for vessels to undertake double-banked operations alongside the berth?	
1		No
2	If 'Yes', state limiting criteria	
7.8	Is vessel required to pump water ashore or receive water on board for line clearance purposes?	
1		No
2	If 'Yes', provide operational details	Fresh water suply at 7 b. Supply fresh water without
7.9	Can the berth be used for Ship-to-Ship transfers using terminal facilities?	
1		Yes
2	Provide details	Under previous requested and after risk analysis performed.
7.10	State details regarding any environmental restrictions applicable at the berth	See Port Authorities Regulations
7.11	Are there any restrictions regarding Hydrogen Sulphide content in Cargo Tanks?	
1		Yes
2	If 'Yes', state restriction	Not allowed.
7.12	Are there any restrictions regarding Mercaptan content in Cargo Tanks?	

1		No
2	If 'Yes', state restriction	
7.13	Are there any restrictions on handling stores when a ship is moored alongside berth?	
1		Yes
2	If 'Yes', state restriction	Restrictions only during cargo operations. Other restrictions: See <a href="http://www.portodesines.pt/pls/portal/go">http://www.portodesines.pt/pls/portal/go</a> or contact Agente
7.14	Additional comments or information	None

## 8 Available Services

8.1	Are Fuel Oil bunkers available?	
1		Yes
2	If 'Yes', state how delivered (e.g. Ex-Pipe, barge, truck)	By pipe - connection to ship by hose
8.2	Are Diesel Oil bunkers available?	
1		Yes
2	If 'Yes', state how delivered (e.g. Ex-Pipe, barge, truck)	Pipe and hose to ship connection.
8.3	Are Intermediate Oil bunkers available?	
1		No
2	If 'Yes', state how delivered (e.g. Ex-Pipe, barge, truck)	
8.4	Is fresh water available?	
1		Yes
2	If 'Yes', state how delivered (e.g. Ex-Pipe, barge, truck)	Bi pipe and hose
8.5	Are slop reception facilities available?	
1		Yes
2	If 'Yes', state how received (e.g. Ex-Pipe, barge, truck)	Pipe
3	State capacity of slop reception facilities (if applicable)	100.00 Cubic metres
4	State any specific exclusions for slop receipts (e.g. chemicals, detergents, cleaning agents)	None
8.6	Are dirty ballast reception facilities available?	
1		No
2	If 'Yes', state how received	
3	State capacity of dirty ballast reception facilities	
8.7	Are engine room sludge and bilge reception facilities available?	
1		Yes
2	If 'Yes', state how received (e.g. Ex-pipe, barge, truck)	
8.8	Are garbage reception facilities available at the berth.	
1		Yes
2	If 'Yes', provide details	Service done by a concessionary.

8.9	Additional comments or information	All the services to supply bunkers and receive slops to be requested by Agent before arrival. Jetty are available a nitrogen and flare facilities
-----	------------------------------------	---

## 9 Berth Low Temperature Impact

9.1	What is the typical range of temperatures the terminal operates in during a winter season?	
9.2	Which months of the year can ice be expected?	
9.3	Specify any terminal requirements for vessel Ice Class notation and winterisation capabilities	
9.4	State any limitations for cargo operations in sub-zero temperatures	
9.5	State the minimum allowable ambient temperature for safe cargo operations	
9.6	State the minimum temperature of cargoes handled	
9.7	State the minimum temperature for the emergency shut-down system to operate safely	
9.8	Does the terminal have its own resources for conducting icebreaker escort	
	1	
	2	If 'Yes' provide details and specify how they can be requested
9.9	Are there icebreakers available to operate in the terminal area	
	1	
	2	Specify details (e.g. Name/IMO Nr/GRT/Power/Ice Class)
9.10	Does the terminal have ice-capable tugs and support craft	
	1	
	2	Specify details (e.g. Name/IMO Nr/GRT/Power/Ice Class)
9.11	Does the terminal have specific requirements for the vessel speed and manoeuvrability characteristics in ice?	
	1	
	2	If 'Yes', provide details
9.12	Does the terminal provide its own ice navigator/advisor?	
	1	
	2	If 'Yes', provide details of how the service may be requested
9.13	Additional comments or information	

## 10 Supplementary Information

10.1	Berth transparency	The berth is a solid concrete one but open to pontualy swell effects mainly from SW.
10.2	Specify datum used for height and depth measurements in this section	
	1	Mean Lower Low Water (MLLW)
	2	If 'Other' please specify other
10.3	Berth height above datum	2.00

---

10.4	Berth heading	170
10.5	Width of the channel adjacent to the berth	
10.6	Position of mooring bollards and hooks	
10.7	Position of mooring buoys	
10.8	Fender Location	
10.9	Fender Reaction Data	
10.10	Fender friction coefficient ( $\mu$ )	
10.11	State identity and horizontal position of loading arms	
10.12	State loading arm operating limits	
10.13	Additional comments or information	None