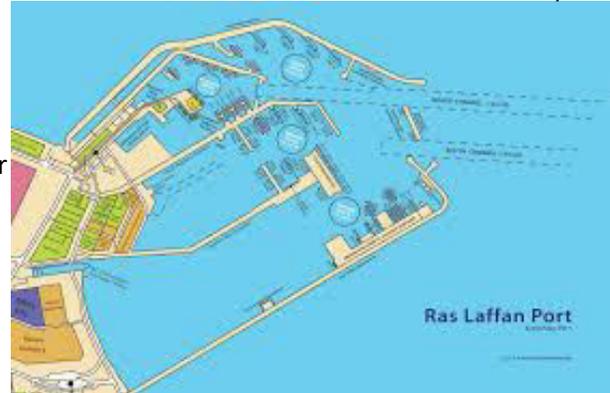


RAS LAFFAN PORT

INTRODUCTION:

Ras Laffan is situated along the northeast coast of Qatar overlooking the Arabian Gulf. Ras Laffan Port is a deep-water port and the largest artificial harbor in the world, and contains the world's largest LNG export facility. Its strategic location at the center of the Arabian Gulf, between the Far East and Europe on the international maritime shipping route, enables hydrocarbon products to be efficiently transported to markets all over the world. The City lies 70 kilometers from Doha; it is an hour's drive on a modern highway that connects it to the commercial capital and the wider world.



Ras Laffan is developed and operated specifically for natural gas-based industries that produce gas products and their derivatives from natural gas produced in the North Field. RLC offers infrastructure, facilities and services in the industrial city with the aim of providing industries and other stakeholders an efficient and competitive business environment.

PORT LIMIT

Ras Laffan Port is Situated on the North East coast of Qatar, in Latitude 25° 55.5'N Longitude 51° 36.5'E. The port covers an area of 56 square kilometers. The purpose built Port of Ras Laffan (RLC) has been designed as the export facility for Liquefied Natural Gas (LNG), Liquid Petroleum Gas (LPG), Condensates, Petroleum Products and Sulphur which are all derived from the processing of gas extracted from the North Field Gas Reservoir situated 67 km NNE of the Port.

The Port of Ras Laffan Port is bound by two 10km long breakwaters with a 1km long offshore breakwater separating the two entrance channels. The two entrance channels are 400m wide and have been dredged to minus 15m CD. Within the four docks the depth reduces to minus 13.5m.

The Port area accommodates LNG Carriers, LPG Carriers, partly laden/ballasted tankers up to 300,000 SDWT, Dry Cargo Vessels, bulk (sulphur) carriers, tug/barge spreads carrying construction materials or equipment and Offshore Service Vessels serving the offshore Oil & Gas Industry. The Port Limits also include the following dedicated Anchorage area.

NAVIGATIONAL INFORMATION

- Time Zone : GMT+ 3
- Working hours: 24 / 7
- DENSITY: The relative density of seawater 1.025 to 1.030.
- Mandatory- ON of Automatic Identification System (AIS)
- The carriage of ECDIS as an alternative to paper charts and as the primary navigation system is permitted.





- Required charts for the Port of Ras Laffan are:
 - Chart BA 3781 - Ras Laffan Port;
 - Chart BA 3772 - Approaches to Ras Laffan;
 - Chart BA 2523 – Iran and Qatar, Cable Bank to Ra’s Rakan
 - Chart BA 3950 – Umm Said (Musay’id) To Ras Laffan

PORT FACILITY

- The Port of Ras Laffan consists of the Port and the SPM facility.
- ISPS Level – 01 (One)
- 24 hrs. Pilotage services.
- EDP is practised in RLC Port in accordance with procedures as laid down by the relevant Business Partners.

COMMUNICATION

- All communications shall be in English language.
- All communication with Port Control (VTS) can be maintained on Ch-16 and Ch-12 which is available 24 hours/day for communications.
- PORT WORKING HOURS: The Port working hours are 24 x 7.

SUITABILITY

All vessels intending to engage in trade for cargo to and from RLC Port shall ensure that the vessel is screened by Port Authority (PMIS system) and the suitability acceptance is issued prior to vessel calling Ras Laffan Port. Further, each industrial berth has specific requirements and general guidelines, which are appended in RLC booklet. It is the responsibility of the carrier to ensure that vessel meets berth /Industrial specific requirements prior to tendering suitability request for RLC port.

Facilities in the port include the following:

➤ **LNG Berths:**

The Port of Ras Laffan has six LNG berths of which four are capable of receiving QMax vessels with a cargo capacity of 266,000 cubic metres, the largest of its kind in the industry. The other berths are capable of receiving QFlex and conventional LNG vessels which are 216,280 cubic metres and 145,000 cubic metres in capacity respectively.

➤ **Liquid Product Berths:**

There are six berths that are currently operational. These berths are designed for products such as condensate, LPG, Pygas, GTL and refinery products. They are capable of handling vessels ranging in length from 160 to 345 metres respectively.



➤ **Sulphur Berth:**

The port has one sulphur berth with the capability of handling vessels of up to 60,000 tonne displacement. The combined loading rate of the two shiploaders is 3,000 tons per hour.

➤ **Dry Cargo Berths:**

Six berths are dedicated for dry cargo of which two offer RoRo facilities.

➤ **Offshore Support Vessel Berths:**

The port has 14 berths with facilities for providing bunkers and fresh water. The berths are used for supply and support vessels servicing the offshore exploration and production activities

➤ **Offshore SPM's (Single Point Moorings):**

Available are two SPMs located about 54 kilometres from the Port. These SPMs can accommodate vessels ranging from 85,000-320,000 DWT.

➤ **Erhama bin Jaber Al Jalahma Shipyard:**

The ultra-modern 110-hectare shipyard is establishing Ras Laffan as one of the world leaders in ship Maintenance, repair and construction. The multi-billion dollar project is funded by QP/RLC and leased to Nakilat-Keppel Offshore & Marine (N-KOM) to manage and operate the ship repair and construction Sections. Key features of the shipyard include two large dry docks, a massive construction hall, re-fit hall, warehouse and administration buildings.



Berth Limitations:

A. LNG Berths

Berth	Max LOA (meter)	Min LOA (meter)	Max loaded Displacement (Tons)	Max Arrival Displacement (Tons)	Max Draft (Meter)
LNG1	315.0	170.0	150,100	150,100	12.50
LNG 2	298.0	170.0	122,500	95,000	12.50
LNG 3	350.0	216.0	185,000	185,000	12.50
LNG 4	350.0	216.0	185,000	185,000	12.50
LNG 5	350.0	216.0	185,000	185,000	12.50
LNG 6	350.0	216.0	185,000	185,000	12.50

B. LPB Berths

Berth	Max LOA (meter)	Min LOA (meter)	Max Arrival Displacement (Tons)	Max Draft (Meter)	Minimum Free Board (Meter)
LPB 20	345.0	155.0	152,000	12.50	3.10
LPB 21	345.0	155.0	152,000	12.50	3.10
LPB 22	345.0	160.0	152,000	12.50	3.10
LPB 23	345.0	160.0	152,000	12.50	3.10
LPB 24	345.0	155.0	152,000	12.50	3.10
LPB 25	345.0	155.0	152,000	12.50	3.10
LPB 30	345.0	140.0	196,000	12.50	3.10

C. Sulphur Berth & General Cargo Berths

SULPHUR BERTH & GENERAL CARGO BERTHS					
BERTH #	LENGTH OF BERTH	MAX DRAFT	MAX LOA	MIN LOA	MAX ARRIVAL DISPLACEMENT
GB 101	200m	12.50m	180m	N/A	60,000 tonnes
GB 102	200m	12.50m	180m	N/A	60,000 tonnes
GB 103	200m	12.50m	180m	N/A	60,000 tonnes
GB 104	210m	7.50m	180m	N/A	21,500 tonnes
GB 105	173m	8.50m	160m	N/A	21,500 tonnes
GB 106	173m	8.50m	160m	N/A	21,500 tonnes
GB 107	137m	8.50m	122m	N/A	21,500 tonnes

D. Service & Small Craft Berths

Berth Name	Berth Length (Meter)	Max Draft (Meter)		Berth name	Berth Length (Meter)	Max Draft (Meter)
NSB 1	73.00	6.50		NSB 10	95.70	6.50
NSB 2	84.00	6.50		NSB 11	105.00	6.50
NSB 3	72.00	6.50		NSB 12	90.00	6.50
NSB 4	69.30	6.50		OSB F	65.30	3.0
NSB 5	82.00	6.50		OSB E	63.90	3.50
NSB 6	75.00	6.50		OSB D	63.90	4.50
NSB 7	82.40	6.50		OSB C	86.70	4.50
NSB 8	82.40	6.50		OSB B	70.40	4.70
NSB 9	95.70	6.50		OSB A	70.40	4.70

E. MARPOL / Bulk Material Berth

Berth	Berth Length (Meter)	Max LOA (Meter)	Min LOA (Meter)	Max Displacement (Tons)	Max Draft (Meter)
BB 01	130.50	110.0	52.0	20,000	6.00



OFFSHORE SPM'S (SINGLE POINT MOORINGS) :

GENERAL INFORMATION:

Purpose & Introduction:

The purpose of this section is to provide guidance for Tanker Owners and Masters of Tankers calling at the RLC Port SPM Terminal on the general nature of conditions, facilities and service at the Terminal.

The RLC Port SPM Terminal is located offshore Qatar approximately 26 nautical miles east from nearest shoreline. It is connected to the onshore facilities at RLC. The SPM Terminal comprises of two CALM buoys designed to export "Deodorized Field Condensate" through Tankers of size ranging between 80,000 to 320,000 SDWT.

The CALM Buoys are turret type and placed 1.08 nm (2000m) apart. Each CALM buoy is fitted with Two (2) Mooring Hawsers and two (2) strings of floating loading hoses.

		CALM 1	CALM 2
Position	Latitude (N)	26° 00' 33.64"	26° 00' 40.59"
	Longitude(E)	052° 03' 39.48"	052° 04' 51.01"
Dimension of the CALM buoy		Length (inclusive skirt):13.8m Breadth (inclusive skirt):13.8m Height :11.3M Depth : 4.6 M Freeboard : 6.7 M Weight : 263 MT	Length (inclusive skirt):13.8m Breadth (inclusive skirt):13.8m Height :11.3M Depth : 4.6 M Freeboard : 6.7 M Weight : 263 MT
Sub-sea Loading pipeline		42 inch	42 inch
Submarine hoses		2 x 20 inch	2 x 20 inch
Floating hoses		2 x 20" hoses terminating in 16" tails	2 x 20" hoses terminating in 16" tails
Length of hose strings		Inner approx. 300 meters Outer approx. 310 meters	Inner approx. 300 meters Outer approx. 310 meters
Breakaway couplings		1 each, Double closure 16"-ASME 300	1 each, Double closure 16"-ASME 300
Tanker Manifold Connection (Portside)		Two each ,16 inch- ASME 300	Two each, 16 inch- ASME 300
Buoy Mooring Chains number & size		Six 81 mm stud less	Six 81 mm stud less
Mooring hawser		Two 60 m, 18 inches grommet, nylon, circular double braided.	Two 60 m, 18 inches grommet, nylon, circular double braided.
Anti Chafe Chain		Grade U3, OCIMF "B", 76 mm	Grade U3, OCIMF "B", 76 mm
Water depth		38.3 meters	38.0 meters
Loading rates		8,000 cubic meters (50,000 bbls) per hour	8,000 cubic meters (50,000 bbls) per hour

Salinity: In the summer the salinity of the water is between 1.024 – 1.027 and in winter between 1.026 - 1.030.

SPM TERMINAL INFORMATION

Tanker Acceptance Criteria:

- SDWT (tonnes) : Min 80,000 // Max 320,000
- Draft (meters) : Min 5.5 // Max 22.0
- LOA (meters) : Min 240 m // Max N/A
- Bow to centre manifold (meters) : Min: N/A // Max 169



- Crane Capacity (tonnes) : Min 15 // Max : N/A
- Manifold Flanges (inches) : Min 16 // Max : 16
- Maximum Trim (meters): Not exceeding 3.0 by the stern
- Propeller : Fully submerged at all times
- Inert Gas System : Operational and cargo tanks are inerted.

RLC PORT - CONTACT INFORMATION

- Port Control // VHF Channels 16 & 12 // rlcportcontrol@qp.com.qa
+974 4474 7701 // +974 4474 7770 // +974 4474 7704
- **RLC Port ISPS - PFSO are:**
Port Facility Security Officer:
Office: +974 40147833 // Fax: +974 40139135 //Mobile: +974 3333 3934
- Harbour Master Office : +974 4014 7112 // +974 4014 7161
- Emergency Control Centre (ECC) : Toll free 135
- Port security Officer // +974 4474 8714