

REVITHOUSSA

JETTY AND TERMINAL INFORMATION

General Information

Name of Jetty: **Revithoussa**

Name of Terminal: **DESFA LNG TERMINAL “Revithoussa”**

Product handling: **LNG**

Type of terminal: **Receiving and Regasification**

Operator of Terminal

DESFA S.A. (www.desfa.gr)

Tel: 0030-210-5508001

Fax: 0030-210-5508201

e-mail: desfalng@desfa.gr

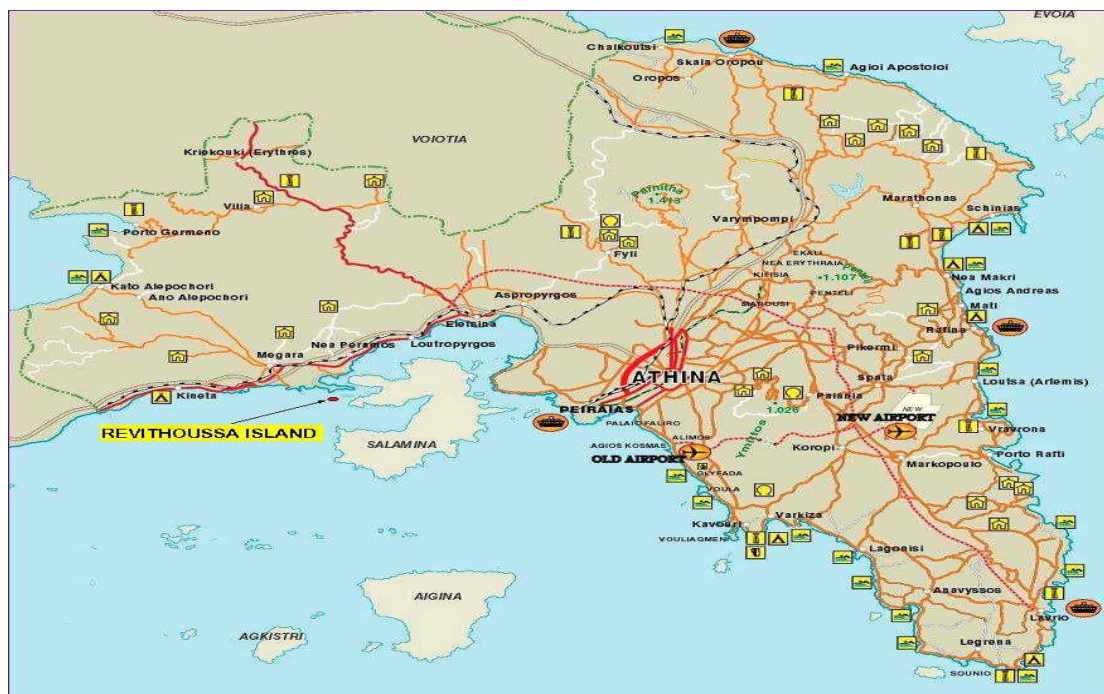
Geographical Information Country: **Greece**

Nearest Town: **Piraeus**

Lat: 37°57`N

Long: 23°24`E

Time zone: GMT +2 hours



Technical Information

Storage Tanks: Two in-ground with **Storage Capacity:** 130,000 m³

Unloaded Rate: 7,250m³/h

Vaporization Peak Rate: 1,250m³/h

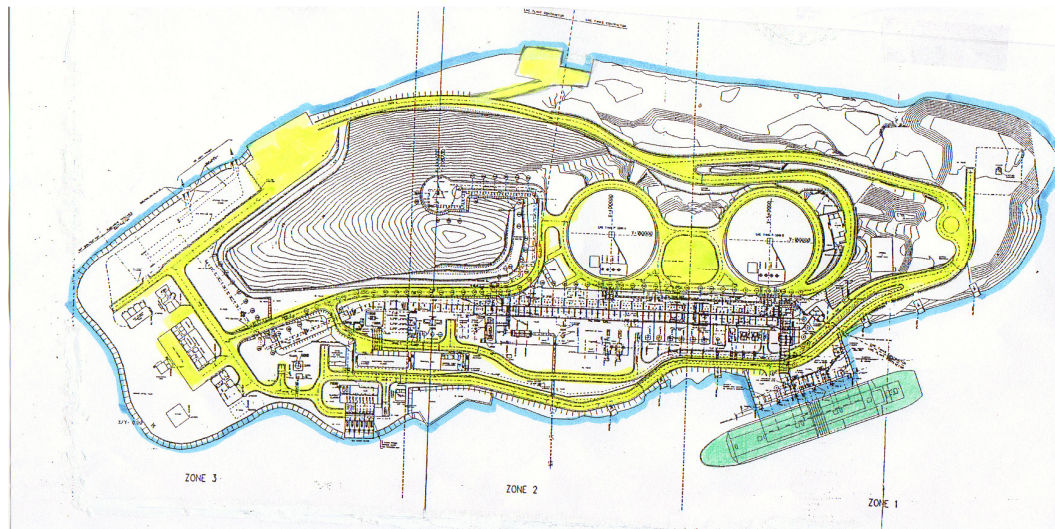
Vaporization SMSR*: 1,000m³/h

*Sustained Maximum Stable Rate

Vaporization Units: 4 SCVs (630m³/h)

3 ORVs (630 m³/h)

Terminal Layout



Jetty view

west



east

Weather Data Restriction

Wind

Wind Speed (Beaufort)	Wind Direction – Wave Height (m)							
	N	NE	E	SE	S	SW	W	NW
6	0.4	0.4	0.7	1.0	1.5	1.4	1.0	0.6
7	0.6	0.6	0.9	1.4	1.8	-	1.4	0.8
8	0.8	0.8	-	-	2.3	-	1.8	0.9

Tidal Data for Revithoussa LNG Jetty

		Maximum Current at Jetty	
	Height (m)	Knots	Direction
Highest Astronomical Tide	1.0	Currents are reported to be minimal	
Lowest Astronomical Tide	0		
<i>Note:- Tidal heights refer to Chart Datum which is at the level of Lowest Astronomical Tide</i>			

Atmospheric visibility in the area is reduced to less than one nautical mile only on about two occasions per year.

Weather Restriction

Cargo stoppage	30 knots and raising
Hard arm disconnection	35 knots
Resumption of cargo discharge	20 knots and falling
Early sailing	Above 40 knots

Berth limits

Depth alongside berth (Lowest Sea Level, LSL=0)	12.7 m
Dock Water Density	1.025 Kg/m ³
Under Keel Clearance (UKC)	1 m
Normal side of berthing	Port or/and starboard side

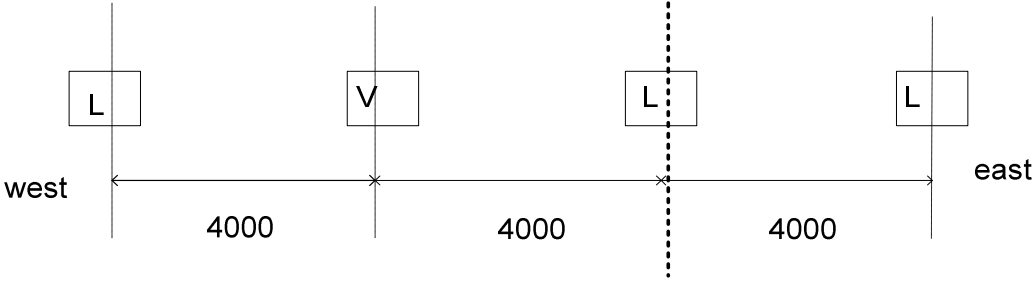
Vessel Dimensional limits

LOA	290 m
Draft	11.5m
max vessel Deadweight	130,000tn

Vessel Manifold Restrictions

Ship side to flange face	Min: 2.6 m
Spacing Between Manifold Centre	Min: 1.8 m
Manifold height above chart datum	Max: 24m Min: 8.55 m

Loading Arms data

	
Number of Liquid arms	3
Flange spec	2 x 12" 150ASA FF 1 x 16" 150ASA
Flow Rate	2 x 1,750 & 1 x 3,750 m ³ /h
Total flow Rate	7,250 m³/h
Number of Vapour arms	1
Flange spec	1 x 12" 150ASA FF
Connection for all arms	Hydraulic Coupler QC/DC/ PERC
Packing for all 12" arms	Graphite Gasket Type
Reducers Available length 600mm	3 (16"x 12") 3 (12"x 12") 3 (12"x 8")

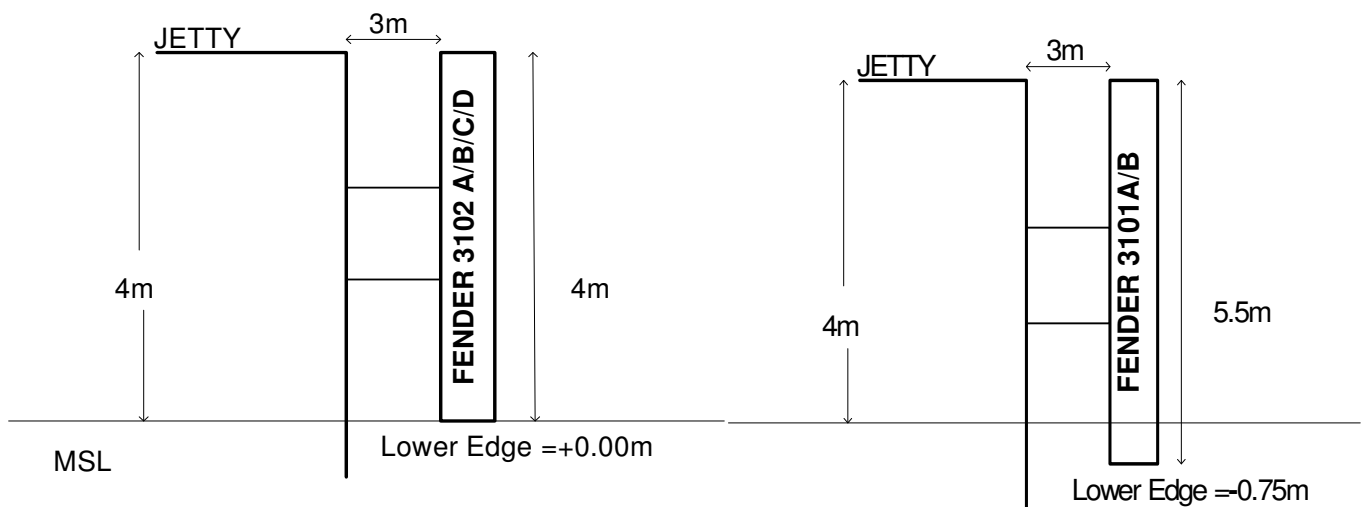
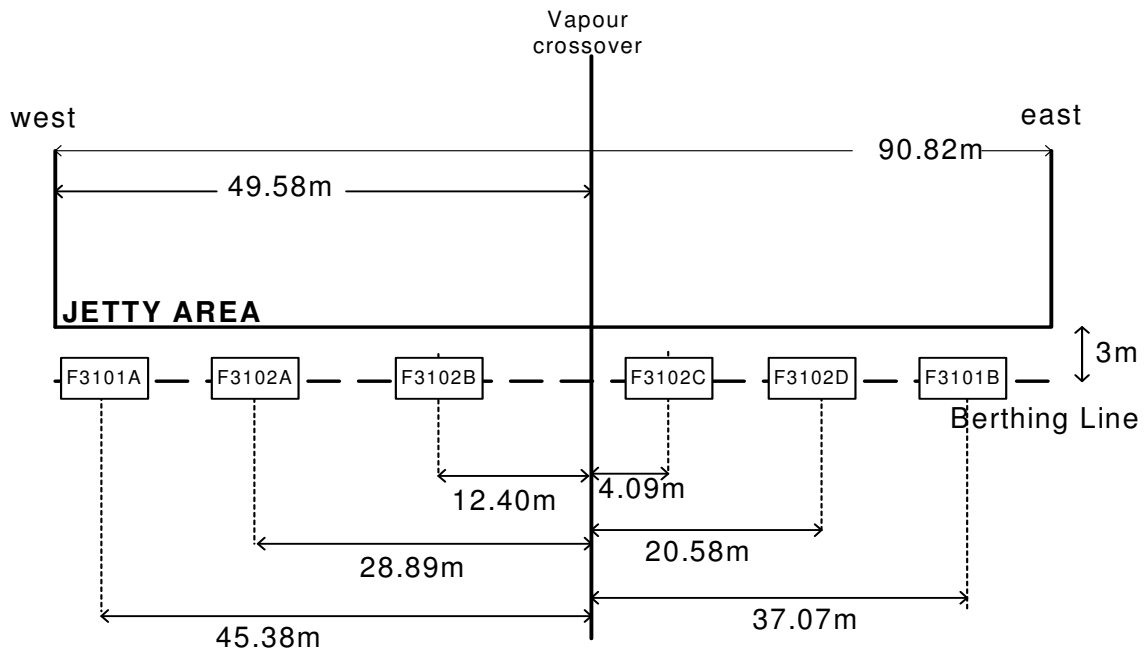
Berthing

Tugs required: Up to 4 for berthing

Up to 3 for unberthing

Berthing Velocity: max 0.15m/sec

Fenders Data



Mooring data

Mooring Dolphin (MD) Type QRH, 3 hooks / 6 sets (3x100)

Breasting Doplhine (BD) Type QRH, 2 hooks / 4 sets (2x60)

1. All mooring hooks are remote operated
2. Mooring line must taken with 1 hook (1 hook / 1 mooring line)

Jetty Mooring Arrangement (looking to seaward – east to west)

Mooring Set	MH3106	MH3105	MH3104	MH3110	MH3109	MH3108	MH3107	MH3103	MH3102	MH3101
Number of Hooks	3	3	3	2	2	2	2	3	3	3
Rating (tonnes)	300	300	300	120	120	120	120	300	300	300
Height above MSL (m)	4	4	4	4	4	4	4	4	4	4
Distance from Vapour Return (m)	163	112	63	39	22	29	47	73	123	173
Distance from Berthing Line (m)	43	44	47	5	5	5	5	42	50	42

Emergency Shut Down (ESD)

Type	Electric
Shore Connector type	AF-1016-621PL-22 (37 pins , male)
Cable Length	50 m
ESD Valves closure time	30 sec

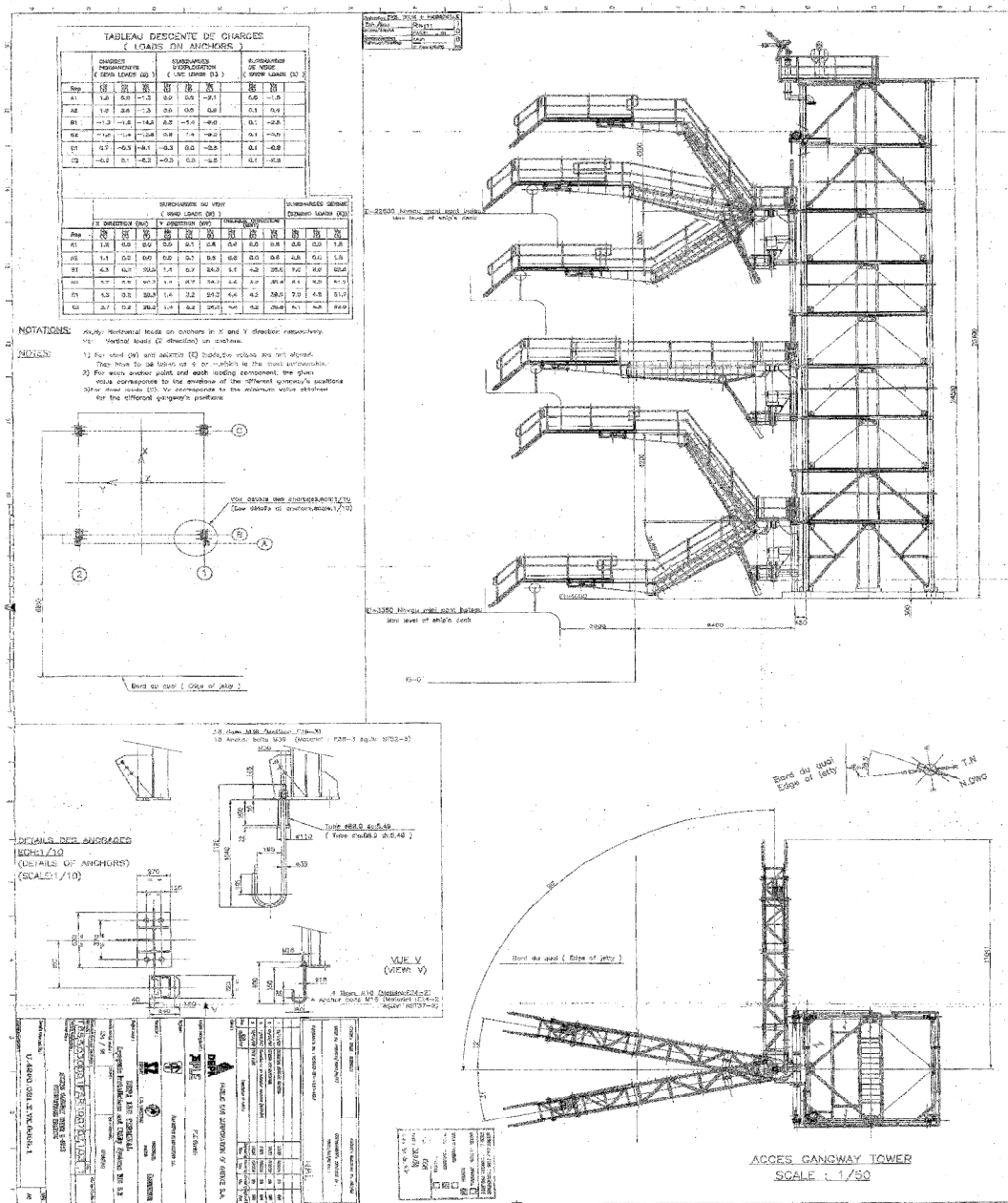
ESD PIN Configuration

Pin 1	Not connected
Pin 2	
Pin 3	High High Level TankA (optional)
Pin 4	
Pin 5	Telephone Line (Hot Line) 16/40 V DC IS line
Pin 6	
Pin 7	Telephone Line 1 (16/40 V DC IS line)
Pin 8	
Pin 9	Interphone Line 2 (No IS Line)
Pin 10	
Pin 11	High High Pressure of Tanks (optional)
Pin 12	
Pin 13	ESD from SHORE to SHIP (Volt free contact on Shore Side closed in healthy condition)
Pin 14	
Pin 15	ESD from SHIP to SHORE (Volt free contact on Ship Side closed in healthy condition)
Pin 16	
Pin 17	Continuity check linked on ship
Pin 18	
Pin 19	Not connected
Pin 20	Not connected
Pin 21	Not connected
Pin 22	Not connected
Pin 23	ESD from Shore to SHIP (Volt free contact on Shore Side closed in healthy condition)
Pin 24	
Pin 25	Not connected
Pin 26	Not connected
Pin 27	Not connected
Pin 28	Not connected
Pin 29	High High Level Tank B (oprional)
Pin 30	
Pin 31 to 37	Not connected

Gangway

Position of Gangway: **36m** west of vapour centreline

Gangway Details	
Gangway type	Tower
Gangway manufacturer	Montalev
Gangway width	0.75 m
Method of quick retraction	
Deck landing point (referenced to vapour return)	36 m (west)
Free area required on ship's deck	2.0 x 2.0
Working range at ship's rail:-	
Maximum height above chart datum	22.6 m
Minimum height above chart datum	3.3 m
Fore and aft slew allowance	12° (2.5 m)



Other systems

Bonding cable

Position : 15m east of vapour centerline

Cable Length: 50m

Connector Type: GD-1024-60PL-22 (480V/100Amps)

Communication System

UHF/VHF hand held radio

Berth Fire Fighting System

Fire extinguisher with dry powder	Upper Platform
Water deluge with springlers	Middle Platform
Sea water, high expansion foam, fire extinguisher with dry powder, water deluge	Lower platform
Hydraulic monitor sea water	Jetty tower
Fire Connection	International Pipe Connection 2" ½ FF/ 8 bolts and nuts (required only 4 bolts& Nuts)

Sirens

Utilities

Liquid Nitrogen *Flange spec: 2" 150 ASA, 4 bolts*

Fresh Water *Coupling* Quick connector

Flow spec: 2 m³/h at 6.5 barg