TERMINAL INFORMATION BOOKLET

CONTROLLED COPY

Prepared by	Checked by	Approved by
Operations Manager	Terminal Operations Director	General Manager

EgeGaz Aliaga LNG Terminal

Key contacts

Terminal address and phone number

Atatürk Mahallesi Karaağaç Caddesi No: 8 35800 Aliaga / İZMİR, TÜRKİYE

P: +90 232 618 2070

F: +90 232 618 2090

terminal@egegaz.com.tr; LNG@egegaz.com.tr

In Case of Emergency (ICE)

Terminal Control Room (TCR) via;	
Direct Phone	Hot Line
Terminal Exchange	3139 or 3202
If No Response from TCR Call Following Numbers from The Terminal Exchange;	
EHS Manager/PFSO	3172
Jetty Control Room	3140
Operation Manager	3130
Marine Superintendent	3150

Radio contact(s)

VHF CHANNEL 12, 14, 16

Harbour Master/port authority

VHF CHANNEL 16

PUBLIC LINE +90 232 616 19 93

Pilots

Uzmar Denizcilik +90 232 445 76 00 / +90 232 625 51 52

Document History

Version	Issued (date)	Comment	Author
0	23.11.2022	First version	OM

Prepared by	Checked by	Approved by
Operations Manager	Terminal Operations Director	General Manager

CONTROLLED COPY

Introduction

a) Objective

The EGE GAZ A.Ş. (EgeGaz) ALIAGA LNG Terminal information booklet is written to supplement current National Regulations to ensure that safe and efficient operations are conducted at the Terminal.

This booklet should be read in conjunction with the National Regulations to ensure that the Terminal Users are acting in compliance with all State/Port Legislation as well as with Terminal's specific requirements.

The Terminal information booklet is also written to provide safe work procedures and emergency response details, together with specific information governing the operations of ships at the EGEGAZ LNG jetty.

It is recommended that the information contained in this publication is used in conjunction with the recognized practices available in the latest ISGOTT and MEG publications and other relevant guides published by OCIMF and SIGTTO.

While the information contained herein is believed to be correct and accurate at the time of publishing this booklet, the Terminal Operator neither makes guarantee nor assumes responsibilities regarding its content or any information which may appear in other supplemental publications.

b) Jurisdiction

Nothing contained herein shall be taken as overriding or contradicting towards:

Aliaga Port Regulations

The Laws of the State of TÜRKİYE

International Maritime Regulations

The Master is advised to consult his appointed local Shipping Agent if clarification or interpretation is required of Türkiye State Laws, and/or Aliaga Port Regulations. The Master is advised to consult The Terminal if clarification or interpretation is required of the EgeGaz LNG Terminal Regulations.

c) Responsibility

Masters of all Vessels visiting the port shall sign and agree to the Conditions of Use for The Jetty of EgeGaz Terminal. Form-1. Masters are requested to sign and return the "Conditions of Use" as a prerequisite of berthing to the Jetty of EgeGaz; in case of non- compliance to this,

CONTROLLED COPY

berthing and unloading/loading of the vessel shall not be permitted, while all related responsibilities remain at the ship's Master.

d) Non-Compliance

The Terminal reserves the right to suspend operations and request the removal of any Vessel from the Berth if the following is observed:

- Flagrant or continuous disregard of Port Regulations or safe practices promulgated in the TIB.
- Any defects to vessel, equipment, personnel or operations that in the reasonable opinion of the Terminal present increased risk to the Terminal and its Personnel

The Terminal shall not be held liable for any costs incurred by a Ship, its Owners, Charterers or Agents as a result of a denial or refusal to unload all or part of a nominated shipment, delay to or suspension of unloading / loading or any other operation conducted whilst at the Berth, or requirement to vacate the Berth when the vessel is in contravention sanctioned first by the Local Authority preceded by EgeGaz TIB.

DEVIATION FROM THE REQUIREMENTS OF THE TIB OR ALIAGA PORT REGULATIONS *MAY ONLY* BE PERMISSABLE WITH THE WRITTEN PERMISSION FROM EGE GAZ A.Ş. TERMINAL MANAGEMENT OR WHERE APPLICABLE ALIAGA PORT AUTHORITY.

The Terminal reserves the right to monitor the cargo handling of any Ship to ensure compliance with the codes and regulations mentioned in Terminal Regulations and Aliaga Port Regulations, and to notify the appropriate authority in the event of contravention.

Abbreviations

OCIMF: Oil Companies International Marine Forum

ISGOTT: International Safety Guide for Oil Tankers and Terminals

SIGTTO: Society of International Gas Tanker and Terminal

MEG: Mooring Equipment Guidelines

SOLAS: Safety of Life at Sea

IMO: International Maritime Organization

ESD: Emergency Shut Down

CONTROLLED COPY

MLA:	Marine Loading Arm
TIB:	Terminal Information Booklet
TCR:	Terminal Control Room
ICE:	In Case of Emergency
ICS:	International Chamber of Shipping
HFO:	Heavy Fuel Oil
MGO:	Marine Gas Oil
PFSO:	Port Facility Safety Officer
EHS:	Environment Health Safety

CONTROLLED COPY

Table of contents

Contents

1. EMERGENCY PROCEDURES 10
1.1. General 10
1.1.1. Emergency Alarms 10
1.2. Air and water Pollution 11
1.2.1 Oil Spill 11
1.2.2 Vapour Release 12
1.3. Fire and Explosions 12
1.3.1. Fire Prevention 12
1.3.2. Emergency Actions 14
1.4. Evacuation 15
1.5. Collision/Damage to Berth 17
1.6. Medical Emergency 17
1.7. Security Breach 17
1.8. Person Overboard 17
1.9. Vessel Breakout or Drift Along Berth 17
1.10. Emergency Shutdown (ESD) 17
1.10.1. ESD-1 Jetty/Ship Unloading Shutdown 18
1.10.2. ESD-2 Unloading Arms Disconnection 21
1.11. Incident Notification Policy 21
1.12. Emergency Remote Mooring Hook Release 21
2. Health, Safety and Security Policies 22
2.1. Personal Protective Equipment (PPE) requirements 23
2.2. Terminal Access/Crew to Shore/Visitors to Vessel 24
2.3. Vessel/Terminal Security Interface (Declaration of Security) 27
2.4. Drugs/alcohol 28
2.5. Smoking 28
2.6. Portable Electronic Equipment and Naked Lights 29
2.7. Repairs While Alongside 29

CONTROLLED COPY

2.8. Provisions and stores 30
2.9. Safety data sheets 30
3. General information 30
3.1. Terminal location 30
3.1.1. General 30
3.2. Terminal Layout 32
3.3. Hours of Operation 34
3.4. Local Time 34
3.5. Vessel/Shore Communication 34
3.5.1. Explosion Proof Cable Assembly 34
3.5.2. Verbal Communication 36
3.5.3. Communication Agreement 37
3.5.4. Loading Master 37
3.6. Language Spoken 37
3.7. Useful Telephone Numbers 37
3.8. Environmental (weather, tides, etc.) Monitoring Procedures 37
4. Berth Information 40
4.1. Description and Parameters 40
4.2. Berthing Facilities 40
4.2.1. Dolphins 40
4.2.2. Mooring Hooks 41
4.2.3. Ship Services 41
4.2.4. Fire Fighting Facilities at Jetty 41
4.3. Jetty Facilities 41
4.3.1. Layout of Jetty 41
4.3.2. Cargo Handling System 42
4.3.3. Loading Arms 42
4.4. Terminal Facilities 46
4.4.1. Main Equipment 47
5. Pre-Arrival Communications 48
5.1. Pre-Arrival Information 48

CONTROLLED COPY

5.1.1. Message Upon Leaving Port of Loading 48
5.1.2. Estimated Time of Arrival (E.T.A) 48
5.1.3. Notice of Readiness 49
5.1.4. Pre-Arrival Information 49
5.2. Berthing and Mooring 49
5.2.1. Pilotage 49
5.2.2. Escort (Manoeuvring) & Stand by Tug Boats 50
5.2.3. Mooring Boats 50
5.2.4. Berthing 50
5.2.5. Mooring 51
5.2.6. Fire Wires 53
6. Operational Information 54
6.1. Gangways 54
6.2. Pre-transfer Conference Policy 54
6.2.1. Cargo Handling Manual 54
6.2.2. Cargo Handling Agreement 54
6.2.3. Control and Supervision of Operations 54
6.2.4. Ship / Shore Pre-Unloading Meeting 54
6.2.5. Vessel Documentation 55
6.2.6. Jetty Shutdown Systems 56
6.3. Ship/Shore Safety Checklist 56
6.4. Ballasting Policy 56
6.5. Loading Arm Connection and Disconnect/Draining Procedures 56
6.5.1. Liquid and Vapor Arms Connection 56
6.5.2. Liquid and Vapor Arms Disconnection 57
6.6. Cargo Transfer Policy 57
6.6.1. Cargo Measurement 57
6.6.2. Cargo Handling Equipment Condition 58
6.6.3. Unloading Start-up /Stopping 58
6.6.4. Unloading Rates 58
6.6.5. Ship / Shore Post Unloading Meeting 59

CONTROLLED COPY

6.7. Returning Boil off Vapor to Ship 59
6.8. Crude Oil Washing (COW) 59
6.9. Safe Operations Requirements 59
6.9.1. Weather Precautions 59
6.9.2. Stability / Draft 63
6.10. Tank Cleaning and Tank Entry Policy 63
6.11. Inert Gas Systems Policy 63
6.12. Surveyors/Sampling and Gauging 63
6.13. Bunkering Policy 64
6.14. Pollution Prevention 64
6.14.1. Leaks and Pollution Prevention 64
6.14.2. Bilge Discharge 64
6.14.3. Waste Management 65
6.14.4. Gas Freeing 65
6.14.5. Venting 65
6.15. Potable Water 65
7. List of Drawings/Tables/Figures/Forms 65
7.1. List of Drawing 65
7.2. List of Tables 66
7.3. List of Figures 66
7.4. Forms 66

CONTROLLED COPY

1. EMERGENCY PROCEDURES

1.1. General

Should there be an emergency situation that requires the vacation of the EGEGAZ berth, Master is required to follow the emergency procedures detailed in EYS-PL-033.

1.1.1. Emergency Alarms

AUDIBLE ALARMS

a) (Table-1 Summary of Tone-Speech Alarms should be brought here, it gives different accounts of fire and gas detection

Audible alarm (Tone = Med Sweep – LF) due to Fire & Gas Detection System are initiated automatically in case of sensors detect any gas or ultraviolet signal propagated from an open fire. After acknowledged alarm by control operator at main control room, audible portion of the alarm would be silenced..

b) UNLOADING / LOADING ARMS OVER TRAVEL

Unloading / Loading Arms control system has a separate alarm arrangement which initiates by over travel of the unloading arms, An **steady Tone** audible alarm is also triggered in combination of a flashing light

PUBLIC ADDRESS ANNOUNCEMENTS

Public Address Announcement System has one-minute automatic speech repeating alarm announcement facility inter tone signals. Pre-recorded speech signals are both in Turkish and English Language repeated every one-minute in associated tone signals.

CONTROLLED COPY

Table-1 Summary of Tone-Speech Alarms

ALARM TYPE	TONE	SPEECHl	
		ENGLISH	TURKISH
Fire in Terminal	800 Hz Siren 2	**Fire in Terminal**	**Terminal Sahasında Yangın**
Fire in Jetty	800 Hz Siren 2	**Fire on Jetty**	**İskelede Yangın**
LNG Leak in Terminal	800 Hz Yelp	**LNG Leak in Terminal**	**Terminal Sahasında LNG Kaçağı**
Gas Leak in Terminal	800 Hz Warble	**Gas Leak in Terminal**	**Terminal Sahasında Gaz Kaçağı**
Power Failure	800 Hz Intermittent Beeps	**Power Failure**	**Elektrik Kesildi**
Chemical Spill	800 Hz Gated Siren	**Chemical Spill**	**Kimyasal Dökülme**
Emergency Shutdown	800 Hz Hi/Lo	**Emergency Shutdown**	**Acil Durum Duruşu**

Vessel is to share alarm type with the Terminal during Pre-discharge meeting on the Ship-Shore Safety Check List.

1.2. Air and water Pollution

1.2.1 Oil Spill

THE VESSEL SHALL IMMEDIATELY REPORT ANY LEAKS OR POLLUTION INCIDENT, DURING SHIP IN TRANSIT TO AND FROM TERMINAL BERTH OR AT ANCHORAGE AREA, TO THE PORT MANAGEMENT.

In the event that any pollution within the Port Limits occurs, regardless of cause of origin, the person in charge or responsible for operation **shall immediately report the incident to the Terminal Management and Aliaga Port Authority via VHF Ch.16.**

Immediate action must be taken to stop or minimize further pollution and contain or clean up any spillage of oil on the Vessel's deck.

CONTROLLED COPY

1.2.2 Vapour Release

Except when in a condition of extreme emergency, LNG vapour release is strictly prohibited in Turkish territorial waters

Failure to report an air or water pollution incident is a serious offense against the regulations and persons found contravening this requirement will be liable to heavy fines and prosecution by/in Turkish Courts.

A vigilant look out must be maintained by the vessel's crew in order to prevent and/or detect leaks or spillage during cargo handling.

THE VESSEL SHALL IMMEDIATELY REPORT ANY LEAKS OR POLLUTION TO THE TERMINAL.

Loading Arm connections to the Ship will be tested for leakage with the Terminal nitrogen supply prior to the commencement of cargo unloading operations. The pressure used for this leak test will be agreed between the Ship and Terminal and will be dependent upon the maximum expected operating pressure for the planned operation. The maximum allowed pressure in the unloading arms will be detailed in the Cargo Handling Agreement.

Any unused Ship cargo and bunker connections must remain tightly closed and blanked.

Whilst alongside the Terminal the HFO/MGO and derivative bunkering is prohibited.

Deck scuppers, drain holes, and drip trays on the Ship within the vicinity of any potential pollution area must be suitably plugged and any accumulated liquid or effluent drained off as required.

1.3. Fire and Explosions

1.3.1. Fire Prevention

- **The Ship's Fire Control and Safety Plan must be made available in a watertight container by the gangway as well as by the main entrances to the accommodation block on the upper deck.**
- The Ship's water-spray system must be available at all times.
- **The Ship's fire main system must be pressurized at all times**. All fire hoses fitted with jet/spray nozzles must be deployed at each cargo tank dome area and the cargo manifold area are to be connected to the Ship's fire main system and ready for immediate use.
- **Portable Dry Powder fire extinguishers must be conveniently placed near the manifold area in operation**.
- **The Ship's fixed dry-powder system must be ready for immediate use, with control boxes opened for access**.

CONTROLLED COPY

- All external doors, windows and portholes of the Ship must remain closed. Air conditioning and ventilator intakes likely to draw in air from the cargo area must be closed. A/C system to be set in recycling mode. Window type air conditioners must be disconnected from their power supply.
- The use of Ship's radio installation is only authorized for receiving purposes. The Ship's main transmitting aerials must be disconnected whilst unloading arms are connected to the vessel.
- The use of the Ship's radars during cargo handling operations is prohibited.
- Hot work, mechanical or electrical repair works, brushing, painting, hammering, chipping, and operations involving the use of any power tools are prohibited on board the Ship during her entire stay at the EGEGAZ berth.
- **Unless certified to be used in gas dangerous zones, the use of Mobile telephones and pagers is prohibited in the vicinity of the Terminal and in the Ship's hazardous areas. Mobile telephones and pagers may be used on board the Ship inside the accommodation area and with the Master's permission**.

CONTROLLED COPY

1.3.2. Emergency Actions

The following table describes the proper immediate actions in the event of an emergency.

Table-2 Emergency Actions

ACTION-SHIP	ACTION-BERTH
Emergency on your ship	**Emergency on the ship**
Raise the alarm	Raise the alarm
Consider use of ESD-1 to cease all cargo operations, close all valves if discharging/loading Stop ballasting operations to the discretion of the Master ESD-1 allows the rapid shutdown of all cargo transfer operations during an emergency	If ESD-1 is initiated, cease all cargo operations, close all valves if discharging/loading Contact Ship and identify nature of the emergency
Inform Terminal or specific terminal contact as agreed	Activate EGEGAZ emergency response procedures.
Trigger the LNG emergency response plan to respond to the nature of emergency	Standby to assist ship, particularly in case of fire
Stand by to purge and disconnect Marine Loading Arms	Prepare for purging and disconnecting Marine Loading Arms If necessary, prepare to activate ESD2
Bring engines to standby and prepare for a potential departure from the EGEGAZ berth	Inform port authority and pilot
Emergency on Terminal	**Emergency at Terminal**
Stand by, and follow instructions from Terminal:	Raise alarm and Trigger appropriate emergency response plan
Consider activation of ESD-1 to cease all cargo transfer operations, Stop ballasting operations to the discretion of the Master ESD-1 allows the rapid shutdown of cargo transfer operations	ESD-1 is initiated and cease all cargo transfer operations, close all valves if discharging/loading Contact ship and explain nature of emergency developing at the terminal Instruct ship on particular requirements
Stanby to purge and Disconnect loading arms Consider activation of ESD2 for quick disconnecting of arms	Standby to disconnect loading arms
Bring engines and crew to standby, ready to unberth	Prepare for ship's vacation from the berth

CONTROLLED COPY

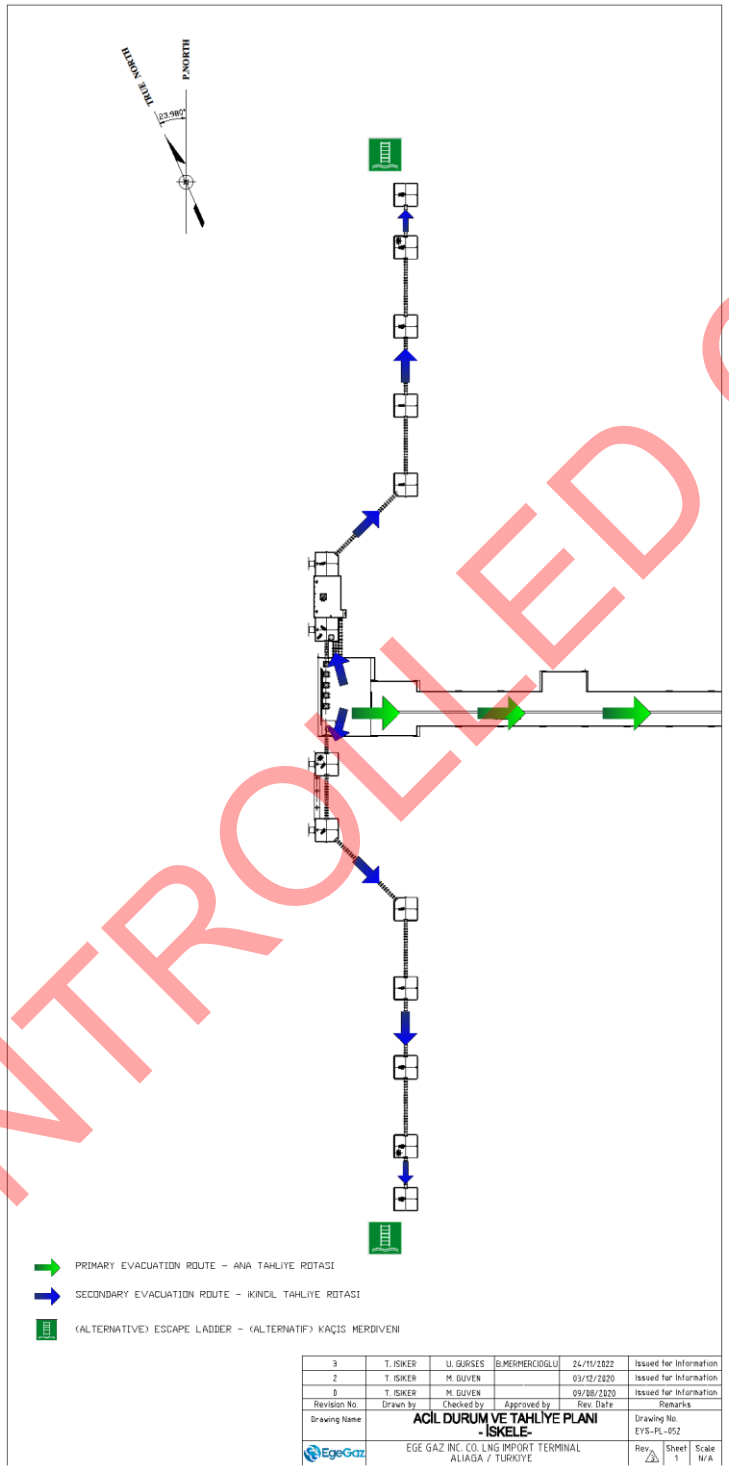
1.4. Evacuation

In the event of an emergency situation arising on the Vessel or Berth, the Master is required to follow the emergency procedures detailed in EYS-PL-033-Jetty Emergency Evacuation Plan, which will be shared via vessels' operator by e-mail, in addition to vessel specific Emergency procedures.

A pilot ladder or accommodation ladder shall be rigged or positioned on the outboard shall be rigged opposite side of the assigned berthing side of the Ship.
The accommodation ladder, if used, shall be lowered such that the foot of the ladder is 5 m above water surface level.
The vessel shall ensure that this distance is maintained during the unloading / loading operation.
The offshore lifeboat, if fitted, shall be made ready for immediate use during the times of emergency.

CONTROLLED COPY

Drawing-1 Evacuation Plan



CONTROLLED COPY

1.5. Collision/Damage to Berth

Immediately alert the Aliaga Port Authority.
Inspection should be done by a representative from EgeGaz and P&I Club before the ship departs.

1.6. Medical Emergency

Contact the Loading Master by radio UHF channel 4 or Terminal Control Room 3139/3202 and Agent.
Inform about the emergency situation.

1.7. Security Breach

Contact the Loading Master by radio UHF channel 4 or Terminal Control Room 3139/3202 and Agent.
Be prepared to stop the operation if necessary.

1.8. Person Overboard

Rescue the person
Contact the Loading Master by radio UHF channel 4 or Terminal Control Room 3139/3202 and Agent.
Inform about the emergency situation and seek medical help.
Also Inform the Aliaga Port Authority and Pilot 24/7, VHF channel 16.

1.9. Vessel Breakout or Drift Along Berth

Bring immediately the ship's engines in a state of readiness and urgently Contact the Loading Master by radio UHF channel 4 or Terminal Control Room 3139/3202 and Agent.
Inform about the emergency situation.
Also Inform the Aliaga Port Authority and Pilot 24/7, VHF channel 16.

1.10. Emergency Shutdown (ESD)

Pyle National SSL-ESD system is provided on the jetty head for instrumentation and communication link. Vantage Technology AF explosion proof ship/shore connection package with El Paso Marine Standard and jumper assembly to match Atlantic LNG Standard receptacle 50 meters cable is composed of 16 pairs of wires to carry the following signals:

- Emergency shutdown from Ship to Terminal,
- Emergency shutdown from Terminal to Ship,
- Ship tanks pressure to Terminal control system,
- Hotline to Terminal Control Room,

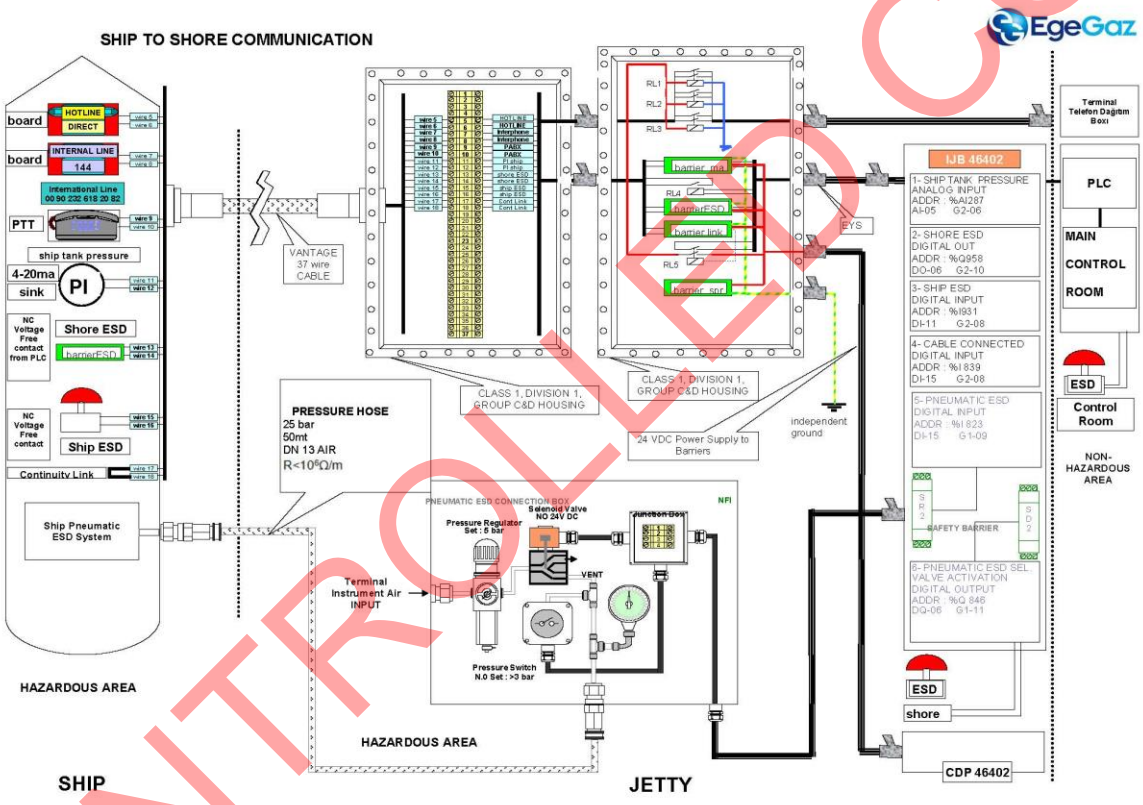
CONTROLLED COPY

- Telephone line to Terminal Exchange,
- Public line (+90 232 618 20 82)

An additional pneumatic system only serving ESD is provided.

Schematic diagram of the Ship-Shore Connection is shown at figure-1.

Figure-1 Ship-Shore Connection



1.10.1. ESD-1 Jetty/Ship Unloading Shutdown

ESD-1 allows the rapid shutdown of the unloading from Ship to Terminal Tanks during an emergency. ESD-1 can be initiated either manually or automatically both by the Ship and the Terminal, or pneumatic ESD system.

A Ship to Shore Explosion-Proof Pyle National cable link conveys the shutdown signal to and from the Ship.

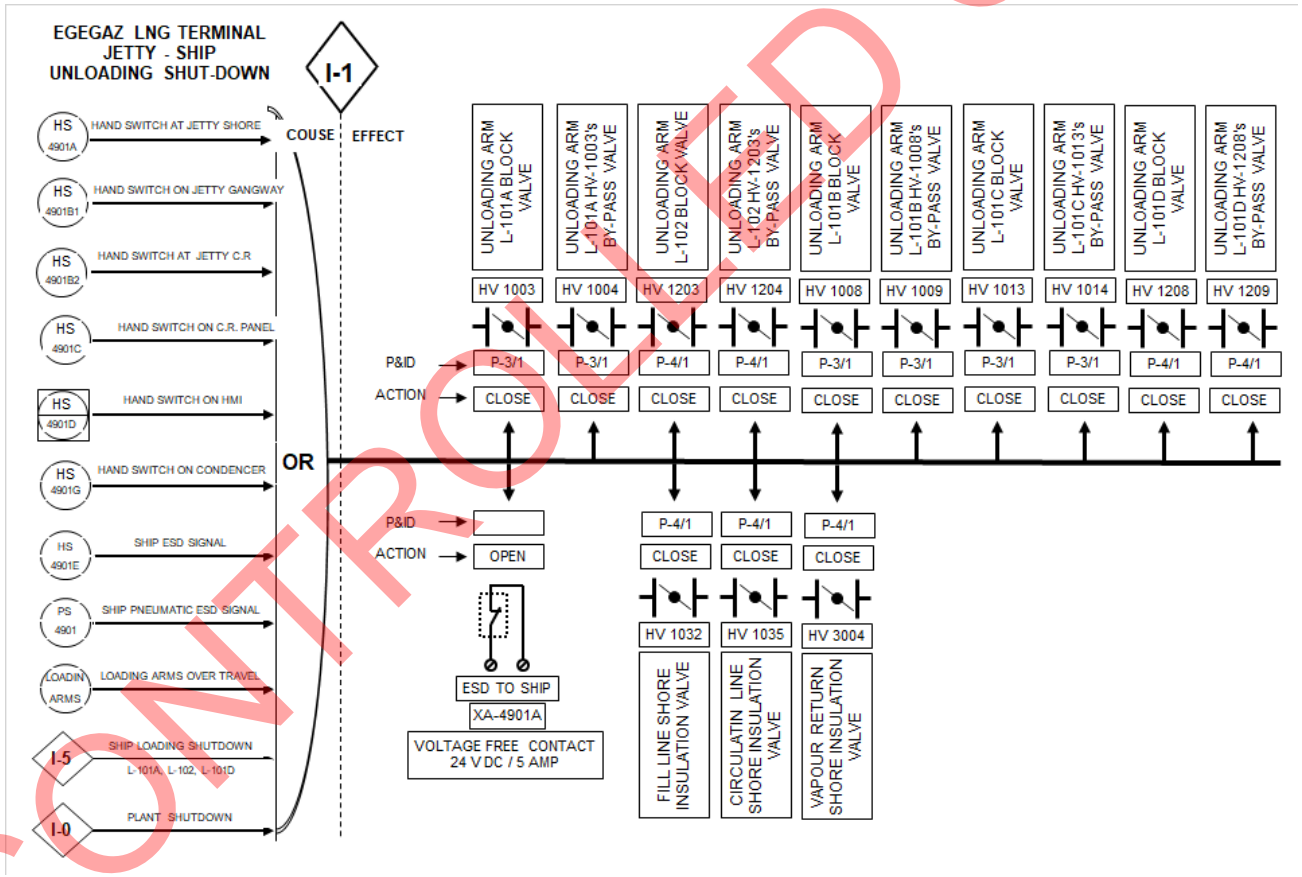
CONTROLLED COPY

When ESD-1 is initiated the following sequence occurs:

- The ESD-1 signal shutdowns of unloading pumps and closes the manifold ESD valves of the Ship. (25- 30 sec *as recommended by SIGTTO*.)
- ESD-1 signal closes all pneumatic actuated ESD valves on the Terminal Jetty. (min. 45 sec.)

ESD-1 Cause & Effect Diagram is given at figure-2.

Figure-2 Cause&Effect Diagram



CONTROLLED COPY

Table-3 Summary of all ESD-1 Valves Closing times is shown as follows:

Valve	Location	Closing Time (sec)
20" HV-1003 Block	**Jetty Head**	**45**
20" HV-1203 Block	**Jetty Head**	**45**
20" HV-1013 Block	**Jetty Head**	**45**
20" HV-1208 Block	**Jetty Head**	**45**
32" HV-1032 Fill Line Shore Isolation	**Jetty Shore**	**45**
6" HV-1035 Circ. Line Shore Isolation	**Jetty Shore**	**2**
20" HV-1008 Vapour Return Block	**Jetty Shore**	**10**
10" HV-3004 Vapour Return Shore Isolation	**Jetty Shore**	**10**

Manuel Initiation

- HS-4901 C (Mounted on Terminal Control Room emergency panel)
- HS-4901 D (Mounted on Terminal Control Room PLC)
- HS-4901 B1 (Mounted on Jetty Head)
- HS-4901 B2 (Mounted on Jetty Gangway)
- HS-4901 A (Mounted at Shore)
- HS-4901 G (Mounted on BOG Condenser)
- HS-4901 E (Vessel Initiated)

Automatic Initiation

- Unloading / Loading Arms Over Travel Warning

  ZAH-1019, 1022,1025, 3005, 1028 (Drift & Slew)
- I-3/101, I-3/102 Tank Fill Shutdown

  High High Liquid Level in LNG Storage Tank

  High High Pressure in LNG Storage Tank

CONTROLLED COPY

1.10.2. ESD-2 Unloading Arms Disconnection

The initiation of **ESD-2** closes the Double Ball Valves then uncouples the Emergency Release Couplings on unloading arms.

ESD-2 is activated by manual or automatic initiation:

- ESD-2 is manually initiated by mushroom push button at Jetty Control Room.
- ESD-2 is automatically initiated by over travel shutdown signals from the unloading arm's drift and slew angle limit switches.

If ESD-2 is activated by manual or automatic initiation, visual and audible alarms are also activated at top of the hydraulic control cabinet and audible alarms at the PLC on Terminal Control Room. (ZAHH-1020, 1023, 1026, 3006, 1029)

When ESD-2 is initiated the following sequence occurs:

If ESD-2 is initiated manually, by mushroom pushbutton at the Jetty Control room, **all five unloading arms** DBV's is closed and then **disconnected**.

CAUTION

THE MANUAL ACTIVATION OF ESD-2 IS TO BE DONE ONLY AFTER MANUAL ACTIVATION OF THE ESD-1 (VERIFY THAT THIS IS THE CASE, AUTOMATIC LOGIC WITH OTHER MLA MANUFACTURERS TRIGGERS AUTOMATICALLY AND ESD1 WHEN ESD2 IS ACTIVATED)

If ESD-2 is initiated automatically, by excessive drift and slew angle limit switches, ZSH and ZSHH of an arm, in the release area, **only the according unloading arm** DBV is closed and then **disconnected**.

1.11. Incident Notification Policy

All Incidents causing or having the potential to cause damage to the port facility or persons involved in the operation should be reported to Terminal, Aliaga Port Authority, Agent and P&I Club (24/7).

1.12. Emergency Remote Mooring Hook Release

There is no automatic activation of quick release hooks.

There are two emergency situations to individually release the mooring hooks remotely.

- **In an emergency when a LNG Vessel Incident places the Terminal Jetty in extreme risk.**
- **In an emergency when the Terminal Jetty Incident places the LNG Vessel in extreme risk.**

CONTROLLED COPY

CAUTION

ACTIVATION OF THE QUICK RELEASE HOOKS IS TO BE DONE ONLY WITH THE CONCURRENCE OF THE SHIP'S MASTER AND PILOT

CAUTION

THE MANUAL ACTIVATION OF MOORING HOOKS RELEASE IS TO BE DONE AFTER DISCONNECTION OF ALL UNLOADING ARMS

Manual initiation for the Quick Release Hooks is activated by pushing seperate push buttons for individual release.

Mooring Hooks Remote Control Panel

Mooring Hooks

2. Health, Safety and Security Policies

General

Responsibility for the safe conduct of operations whilst a ship is alongside the jetty rests jointly with the Master of the Ship and the responsible Terminal Representative. Therefore, before operations start, it is incumbent upon both ship and shore that there is full co-operation and understanding of the safety requirements set out in the Ship/Shore Safety Check List, which is extracted from The Latest Edition of ISGOTT.

The Master is expected to adhere strictly to these requirements throughout the stay alongside the Terminal jetty and receiving Terminal personnel will do likewise and co-operate fully with the ship in the mutual interest of safe and efficient operations.

CONTROLLED COPY

Before the start of operations, and from time to time thereafter, for the mutual safety of both the terminal and the vessel, the Terminal Representative together with a responsible Ship's Officer, will make a routine visual inspection of the ship to ensure that the questions on the Ship/Shore Safety Check List can only be answered by the affirmative.

Where corrective action is needed, the Terminal may not agree to the commencement of operations or even stop those if they are underway.,

Similarly, if the Master considers that overall safety is endangered by the Terminal, either on the performance part of the terminal's staff or its machinery/ equipment the Master should demand immediate cessation of operations until the situation is rectified.

Repeat checks of those items marked in the Ship Shore Safety Check List will be carried out by both ship and shore personnel at intervals not exceeding 4 hours.

After berthing, Masters are requested to sign and return the Safety Declaration Form-9, sent by Terminal as a prerequisite of starting of the cargo operations.

Port Security Requirements

The various forms, information and procedures laid out in the document formalize the conduct and procedures governing ship/shore operations at the jetty which are to be mutually agreed before operations commence.

The agreements reached in the document remain in force throughout the time a ship remains alongside the jetty. Any changes made to these agreements during the course of the cargo operation must be again agreed in writing.

All items contained in the Ship/Shore Safety Check List must remain constantly under review. However, the ship and shore are required to jointly recheck those items requiring formal recheck at intervals not exceeding 4 hours.

2.1. Personal Protective Equipment (PPE) requirements

The following protective clothing is to be worn at all times by Terminal personnel working in the berth area:

- Safety helmet
- Safety shoes
- Safety glasses or Protective goggles
- Protective gloves

CONTROLLED COPY

- Fire retardant (EN ISO 11612) Coveralls **are mandatory for Terminal Personnel**
- Life jacket or buoyancy aid when working on the jetty.

It remains the Master's responsibility to ensure that his crew wearing appropriate personal protective equipment at all times on the Ship..

Crew members and ship's visitors transiting through the terminal's facilities must adhere to the terminal rules and procedures at all times during their transit.

Ships should establish the PPE requirements for visitors through their agents, as a minimum these should include appropriate clothing with long trousers and long sleeved shirts, safe footwear and safety helmet. Visitors to the jetty are required to follow the safe route channeling clearly marked on the floors.

2.2. Terminal Access/Crew to Shore/Visitors to Vessel

A gangway step tower is provided for access to the ship from the jetty deck.

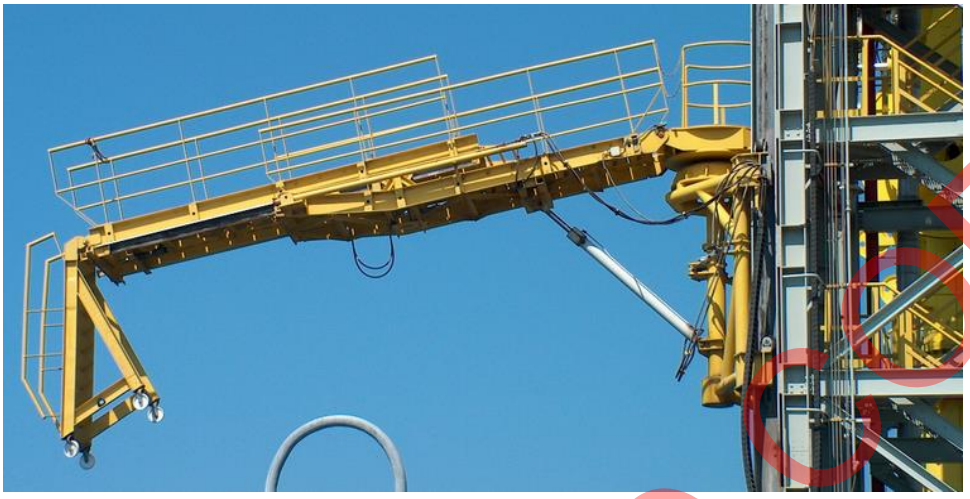
Security and access control on board of the vessel are the Master's responsibility and remain subject to the Master's approval.

The Terminal will provide and operate a Telescopic Gangway with a Saddle arrangement for location on the ship's handrail/deck.

The gangway is lifted on board by the Terminal personnel after the ship is securely moored, grounded and permission to put gangway on board is granted by the Master of the Ship**.**

The Master is required to provide assistance on the main deck to enable the proper and safe positioning and removing of the Terminal gangway on board the Ship.

CONTROLLED COPY



The gangway shall be inspected once in position by the Ship and the Terminal to ensure that there is a safe transit for personnel on the Ship and between the Ship and the Berth.

It remains within the responsibility of the Master to provide safe access from the termination of the gangway steps to his vessel.

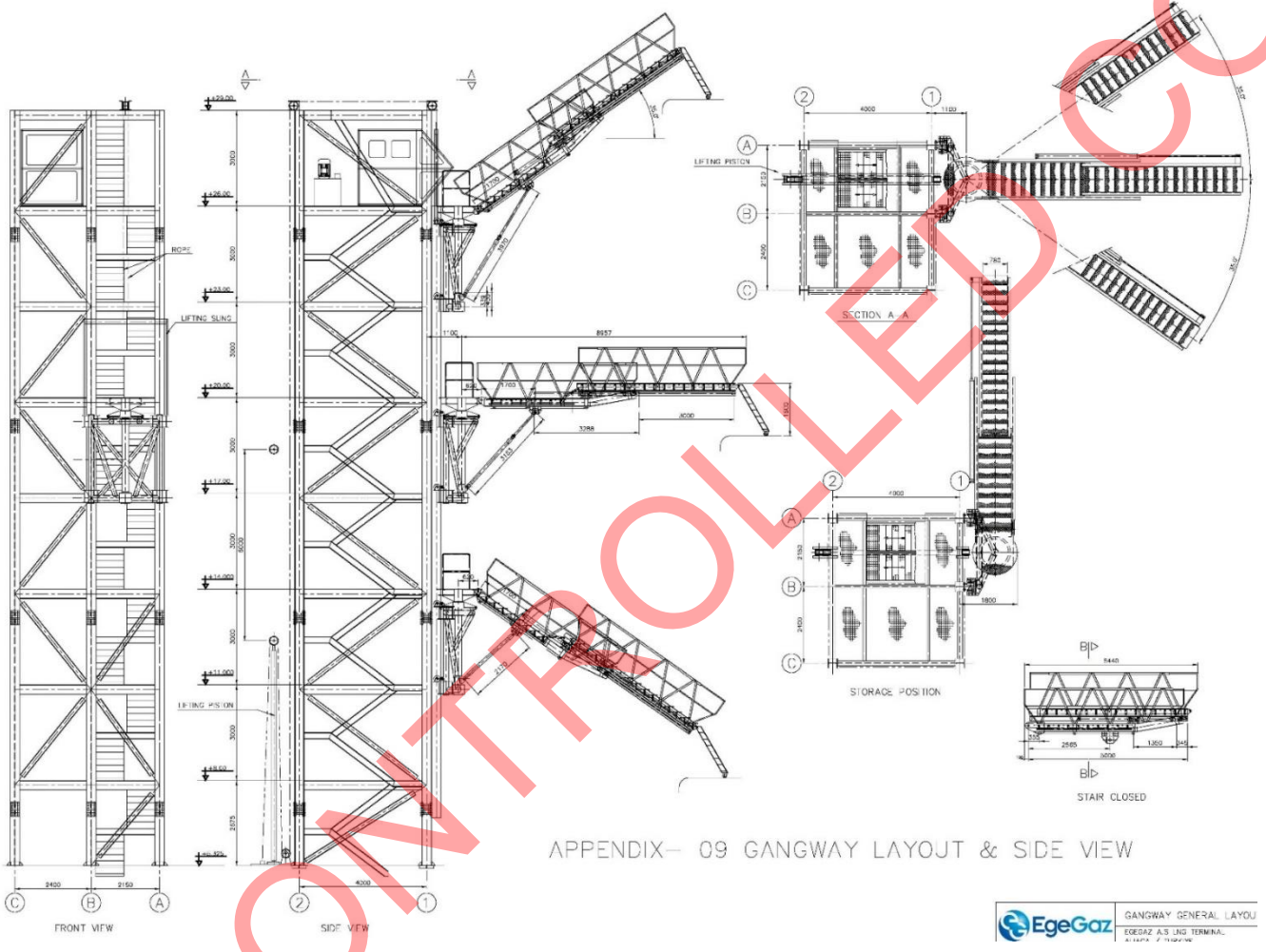
The terminal recommends the following to be available at the gangway end:

1. The provision of a life-buoy with at least 25 meters of lifeline,
2. Additional safe illumination if required, and
3. Safe access between termination of gangway steps and vessel main deck.

Lay-out and Side view of the Gangway is shown at Drawing-2.

CONTROLLED COPY

Drawing-2: Gangway



CONTROLLED COPY

Prepared by	Checked by	Approved by
Operations Manager	Terminal Operations Director	General Manager

Security & Berth / Vessel Access Control

Terminal Manager is responsible for security and control of access to the Terminal.

The normal access to the Terminal facilities is via the main entrance.

SHIPBOARD PERSONNEL ACCESS TO THE TERMINAL OR THE PORT AREA IS NOT PERMITTED WITHOUT PRIOR APPROVAL FROM THE TERMINAL

All visitors (pre-informed and authorized) will be registered at the gatehouse; Terminal Safety Manual governs for all moves in the Terminal area. The Terminal reserves the right to escort to or from the ship any visitors, servants or persons. All personnel within the Terminal area, including visitors, servants, agent or ship crew shall carry a badge with personal identification.

The Terminal only provides shuttle service available for the ship crew and visitors; ship personnel, who must go to shore for any emergency need, shall be under control and responsibility of the agent and must comply with local regulations and follow the Terminal safety / security procedures.

The Terminal reserves the right to board the Ship at any time to ensure that the Terminal Regulations are being observed.

The Terminal reserves the right to stop all operations in the event of contravention of the Terminal Regulations; the terminal shall not be responsible of any cost that may occur due to such an action

The Terminal has the sole responsibility of controlling access to the Berth area.

Vehicles are not allowed to enter the Berth area during cargo operations.

2.3. Vessel/Terminal Security Interface (Declaration of Security)

In line with the ISPS Code, the following three security levels are adopted:

Security Level 1 – Normal

The level for which standard security measures shall be maintained at all times.

Security Level 2 – Heightened

The level for which appropriate addition measures shall be maintained for a period of time as a result of heightened risk of a security incident. This will include additional security guards and patrols with greater scrutiny of port users.

Security Level 3 – Exceptional

The level for which further additional security measures shall be maintained for a limited

CONTROLLED COPY

period of time when a security incident is probable or imminent, although it may not be possible to identify the specific target. For the Terminal, this may result in the removal of a ship from the berth or the delay in a ship berthing.

- Ships berthing to the Terminal will be required to have an International Ship Security Certificate indicating that they comply with the requirements of SOLAS chapter XI-2 and Part A of the ISPS Code, as well as with others as noted in the SPA (sales/purchase agreement) or TSA (terminal services agreement).
- A Security Meeting will be held in the Ship's meeting room to ensure compliance with the requirements mentioned above. ISPS Declaration of Security Between a Ship and Port Facility given Form-8 will be discussed, completed and agreed accordingly during this meeting.
- The Terminal Security Officer (PFSO) shall attend this meeting as terminal representative.
- The Ship Security Officer (SSO) shall attend this meeting so representing the Ship.
- Ships using port facilities are subject to Aliaga Port Authority control inspections and additional control measures.

2.4. Drugs/alcohol

This drug and alcohol abuse policy must meet or exceed the standards specified in the OCIMF the latest version of 'Guidelines for the Control of Drugs and Alcohol Onboard LNG Carrier'.

If at any time the Terminal detects, or has reason to suspect, that the Master or any Crew members is under the influence of drugs or intoxicating liquor, the following course of action will be taken:

- **All Cargo Handling Operations will be suspended immediately**
- **Aliaga Port Authority will be informed of the situation by the Terminal**
- **An investigation into the circumstances will be carried out in liaison with the Aliaga Port Authority, the Terminal, the Ship's Agent and any other relevant authority.**

Cargo-Handling operations will remain suspended until such time that the Terminal is satisfied that they may be safely resumed.

The results of any investigation carried out as a result of suspending operations will be communicated to the Ship's Owners and Ship Charterers, and to other relevant authorities.

2.5. Smoking

Smoking in the Terminal area and its administration buildings is strictly proscribed, except in designated smoking areas.

CONTROLLED COPY

Smoking in the Berth area is strictly prohibited. Smoking on board the Ship is only authorized in the designated smoking areas only, locations are agreed during the ship/shore Pre-Unloading / Loading Meeting. Authorized Smoking areas should not exceed 3 locations and should be clearly designated by appropriate signs and Non-smoking signs shall be displayed on board the Ship on arrival under the Master's authority. Smoking rooms should be within the accommodation area and in rooms that don't open directly onto decks.

2.6. Portable Electronic Equipment and Naked Lights

Portable and fixed electric and electronic devices and equipment used in the Ship's hazardous areas must be of an approved type for such areas (for example EXI) and satisfactorily certified and maintained as per manufacturers' recommendations

Portable electrical equipment, including computers, mobile phones, pagers and cameras, if not certified intrinsically safe, must be switched off and may only be used within:

- Permanent buildings as designated by the Terminal Management.
- Areas on the ship designated by the Master.

The use of naked lights is strictly prohibited on board the Ship and on the Berth area.

2.7. Repairs While Alongside

Any defect or deficiency occurring in the Ship's manning, or equipment during the cargo handling operations must be immediately reported to the Terminal.

ANY REPAIR OR MAINTENANCE WORKS (EITHER COLD OR HOT) WHICH WOULD IMPAIR THE SAFETY OF THE CARGO HANDLING OPERATIONS OR THE MANEUVERABILITY OF THE SHIP ALONGSIDE THE BERTH IS STRICTLY PROHIBITED

Repair work involving burning, welding, flame cutting, brazing, grinding and similar operations which produces ignition sources including the use of Naked Lights is prohibited during berthing/unberthing operations and during the ship's stay alongside the EGEGAZ berth. These activities can only be carried out at anchorage area with a Hot Work Permit been issued by the Aliaga Port Authority.

Any violation could result in the cessation of the cargo operations and the Vessel requested to vacate the berth and being put anchor pending a fully inquiry. The Vessel will be responsible for all the cost and delays whatsoever resulting from such action.

Should there be a real necessity to carry out essential repairs for the safety and integrity of the ship/terminal, the Port Authorities and terminal are to be promptly informed. The ship cannot proceed with any repairs without prior authorization.

CONTROLLED COPY

2.8. Provisions and stores

Stores, deliveries and/or spares will not be loaded or unloaded to the vessel at the Terminal Jetty. Barges are not permitted to approach to vessel during berthing.

2.9. Safety data sheets

Safety data sheet for the handled product should be on place during the operation.

3. General information

3.1. Terminal location

3.1.1. General

Name of Port	: Aliaga
Name of Terminal	: EgeGaz Aliaga LNG Terminal
Operator of Terminal	: EGE GAZ A.Ş.
Address	: EgeGaz Aliaga LNG Terminali Aliaga-İzmir-TÜRKIYE
Tel	: +90 232 618 20 70 pbx
Fax	: +90 232 618 20 90
E-mail	: terminal@egegaz.com.tr
	LNG@egegaz.com.tr

3.1.1 Geography

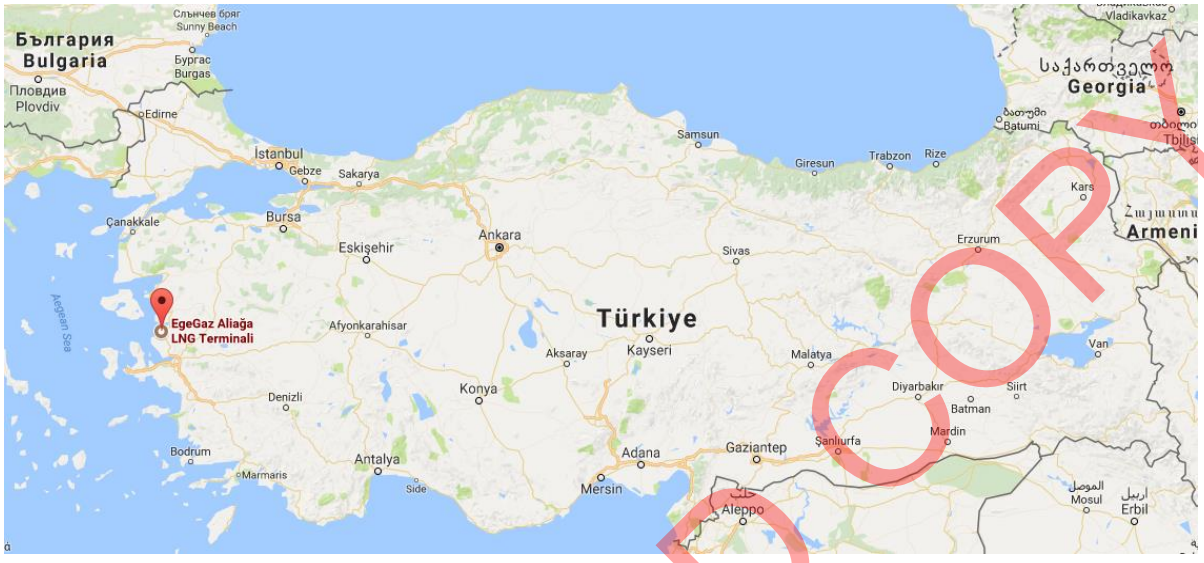
The EgeGaz LNG Terminal is situated along the East Coast of the Aegean Sea, at Aliaga, an industry town located about 60 km north of Izmir city.

Position

Latitude : 38^0 49’ 20’’ N Longitude: 26^0 54’ 52.65’’ E

Time Zone : GMT + three hours Daylight Saving: No

CONTROLLED COPY

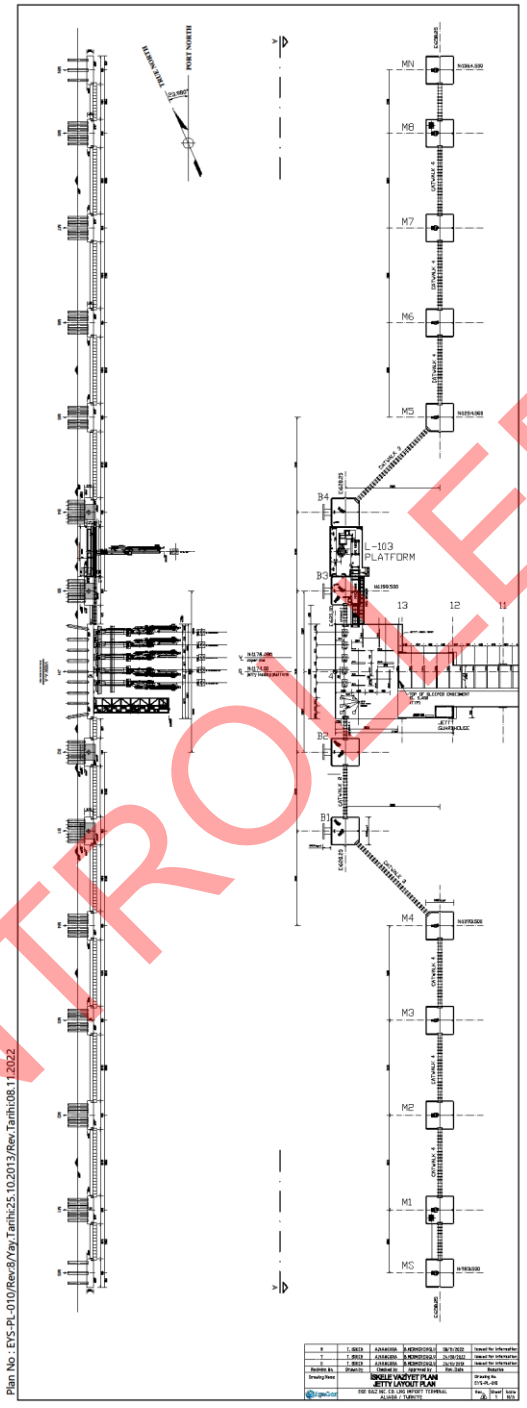


CONTROLLED COPY

Prepared by	Checked by	Approved by
Operations Manager	Terminal Operations Director	General Manager

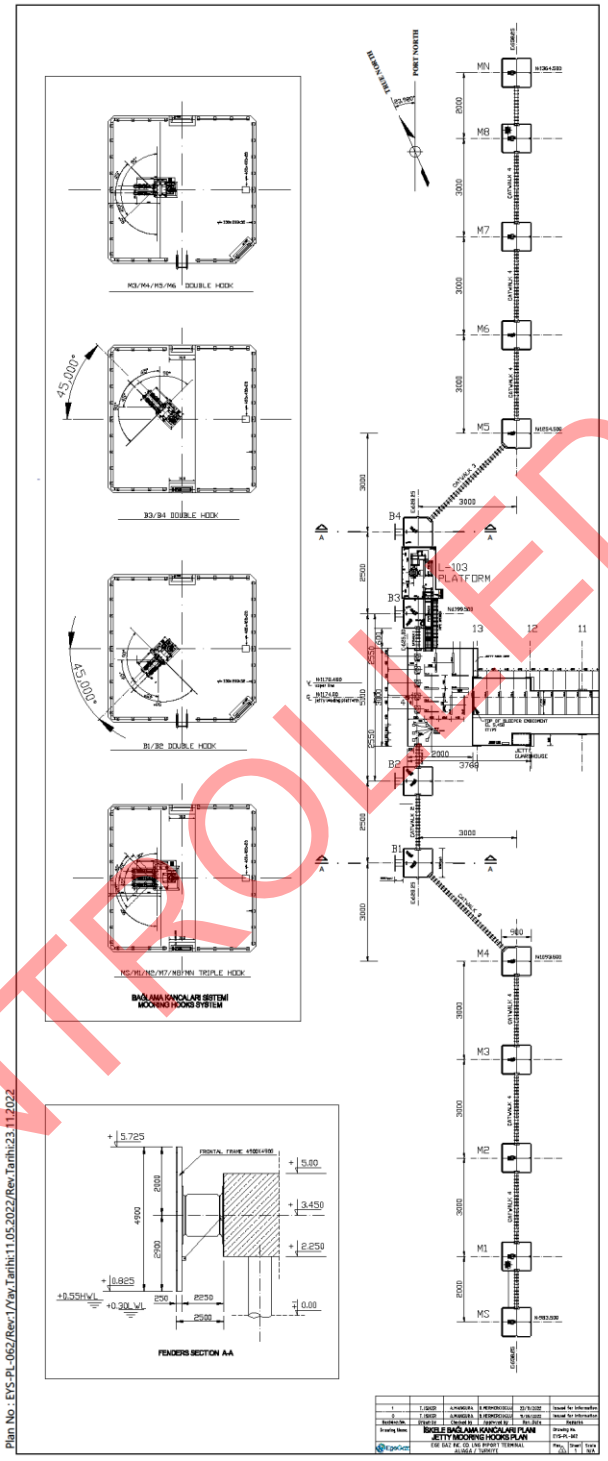
3.2. Terminal Layout

Drawing-3 General Layout of the Terminal Jetty



CONTROLLED COPY

Drawing-4 Jetty Mooring Hooks Plan



CONTROLLED COPY

Prepared by	Checked by	Approved by
Operations Manager	Terminal Operations Director	General Manager

3.3. Hours of Operation

Only daylight berthing operation will be permitted.

3.4. Local Time

GMT +03:00 (There is no daylight-saving time)

3.5. Vessel/Shore Communication

3.5.1. Explosion Proof Cable Assembly

The primary system utilized to establish a means of communication between the Ship and the Terminal will be via Pyle National SSL-ESD system - **Ship to Shore Link system Box, EJB-5 series** - An explosion proof 37 way *PYLE system* 50 meters cable assembly, is provided on the jetty head. ESD/Communication Cable PIN Configuration is shown in Table-4 ESD/Communication Cable Pin Configuration.

37-way cable on drum
Jetty terminal box

Pyle National Male Connector

Information on the Tensions of all mooring lines are monitored at both local and the control room, as well as current climatic and wind conditions are monitored at the control room. Ship to shore communication cable will be connected by Terminal personnel as soon as grounding cable and gangway have been set. Communication cable will remain connected until the gangway is about to be removed prior to the Ship's departure.

CONTROLLED COPY

Table-4 ESD/Communication Cable Pin Configuration

Pin Conn	RESERVED FOR APPLICATION	EgeGaz CONNECTION
1	Sound Powered telephone	Not Connected
2		
3	Ex'ia Telephone	Not Connected
4		
5	Interphone or Hotline Telephone	Hotline Telephone - Direct to Control Board
6		
7	Public Telephone No:1	Interline TEL No: 3144
8		
9	Public Telephone No:2	PABX Telephone No: 00 90 232 618 20 82
10		
11	4-20ma Ship-shore Vapour Pressure Signal	Ship Tank Vapour Pressure
12		
13	ESD Shore - Ship	ESD Shore - Ship
14		
15	ESD Ship - Shore	ESD Ship - Shore
16		
17	Continuity Check Linked on Ship	Continuity Check - Link on Ship detection circuit
18		
19	Continuity Check Linked on Ship	Not Connected
20		
21	Shore-Ship Shore Tank HL ESD Trip	Not Connected
22		
23	ESD Shore - Ship	Not Connected
24		
25	ESD Ship - Shore Unloading Arms 1st Stage	Not Connected
26		
27	ERC Ship - Shore Unloading Arms 2nd Stage	Not Connected
28		
29	+ 24V 35ma max for ship-shore	Not Connected
30		
31	Reserved for MLM Connection	Not Connected
32		
33	Reserved for MLM Connection	Not Connected
34		
35	+24V 35ma max for shore-ship test circuit or SIGTTO link ESD	Not Connected
36		
37	Not Connected	Not Connected
Earh Bond	Prohibited by OCIMF Regs	NO EARTH CONNECTION

CONTROLLED COPY

Prepared by	Checked by	Approved by
Operations Manager	Terminal Operations Director	General Manager

3.5.2. Verbal Communication

All communication between Vessel to Terminal and Pilot and Vessel to Aliaga Port Authority shall be in English Language.

The Terminal will ensure that the Vessel is provided with a HOT LINE for emergency communication to the Terminal Control Room.

The Terminal will also provide a PaBx telephone line that will enable communication via Turkish National Telephone Grid. International access is possible on request at the expense of Ship.

Terminal main control room HOT LINE telephone

Terminal VHF Radio

During routine unloading / loading operation, communications between ship and terminal are primarily carried out using VHF Channels. Ch.16 for calling, Ch.12 and Ch.14 for private communication at frequency TX-156.025 – 157.425 and RX-156.025 – 163.275 MHz.

In the event of a failure of the communications system providing the ESD / data link, all unloading operations must be suspended until the communication link is re-established.

Prior to any vessel calling at EgeGaz Terminal for the first time, EgeGaz will conduct a thorough Ship – Shore Compatibility Survey. During that survey any problems associated with communications will be identified and steps will be taken with Vessel and Terminal to ensure that there is an adequate and compatible link between ship and shore.

CONTROLLED COPY

3.5.3. Communication Agreement

Communication Agreement, given at Form-7, shall be completed and signed by the Master during the Pre-unloading Meeting. This document defines the communication systems and procedures to be implemented between the Ship and the Terminal.

3.5.4. Loading Master

The terminal will delegate a Loading Master who shall stay on board the vessel during the entire unloading process, his role is to coordinate operational activities between the terminal and the ship.

3.6. Language Spoken

English / Local Language (Turkish) Vessel Acceptance

Ship-Shore Compatibility Study is carried out when the ship is nominated to the Terminal.

Vessels over 15 years of age and more than 5,000 tonnes DWT MUST provide a Hull CAP Certificate with Grade 1 or 2 rating issued by a Classification Society which is a member of the International Association of Classification Societies (IACS). All types of tankers over 15 years of age MUST provide CAP Certificate for Machinery and Cargo Systems with a Grade 1 or 2 rating, issued by a Classification Society which is a member of IACS. The CAP certificate MUST be renewed every 5 years. If the vessel is older than 20 years, the CAP Certificate MUST be renewed every 30 months

3.7. Useful Telephone Numbers

Terminal Control Room (TCR) via;

Direct Phone	Hot Line
Terminal Exchange	3139 or 3202

If No Response from TCR Call Following nos from The Terminal Exchange;

Terminal Safety Supervisor	3172
Jetty Control Room	3140
Operation Manager	3130
Marine Superintendent	3150

3.8. Environmental (weather, tides, etc.) Monitoring Procedures

Jetty is equipped with weather monitoring system which monitors and records air temperature in degree Celsius, barometric pressure in millibar, humidity in %, wind speed in meter/second, visibility in meters and wind direction continuously.

Meteorological Data of the Terminal site is shown at Table-5, Table-6 and Figure-3.

CONTROLLED COPY

Table-5 Average Number of Windy Days between 1964-1990 from the data of Aliaga Meteorology Station

Wind data

	Observation Period(year)	Months												
		I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	Yearly
Monthly Average Wind Speed(m/s)	5	4,2	4,6	4,0	3,6	3,4	3,6	5,2	4,4	3,8	4,4	4,2	4,0	4,2
Maximum Wind Speed (m/s)	28	22,7	22,7	17,5	17,5	17,5	17,5	17,5	17,5	15,4	17,5	17,5	17,5	22,7
Maximum Wind Speed Direction	28	NE	NE	SW	SW	SW	NE	SW	W	W	SW	SW	NE	NE
Average Stormy Days Number(>17,5 m/s)	25	0.7	0.8	0.6	0.2	0.1	0.0	0.1	0.2	0.2	0.3	0.2	0.4	3,4
Ave. High. Windy Days Number (12-15 m/s)	25	1,9	1,8	1,6	1,3	0,5	0,3	0,9	0,5	0,7	1,3	1,0	1,4	13,0

Sea Water Temperature

Minimum (Winter) : 13.5 ^{0}C

Maximum (Summer) : 22.5 ^{0}C

Air Temperature

Monthly Minimum : 4.0 ^{0}C

Monthly Maximum : 32.0 ^{0}C

Recorded Minimum : - 6.2 ^{0}C

Recorded maximum : 41.0 ^{0}C

Barometric Pressure

Mean Barometric Pressure : 1014 mbara

Maximum Barometric Pressure : 1040 mbara

Minimum Barometric Pressure : 982 mbara

Rate of Change : -/+ 13.3 mbar/hr

Tidal Information

Tidal range at berth : 0.40 m.

Max. High/Low Water : + 0.2 / - 0.2 m.

Mean High/Low Water : + 0.125 / - 0.125 m

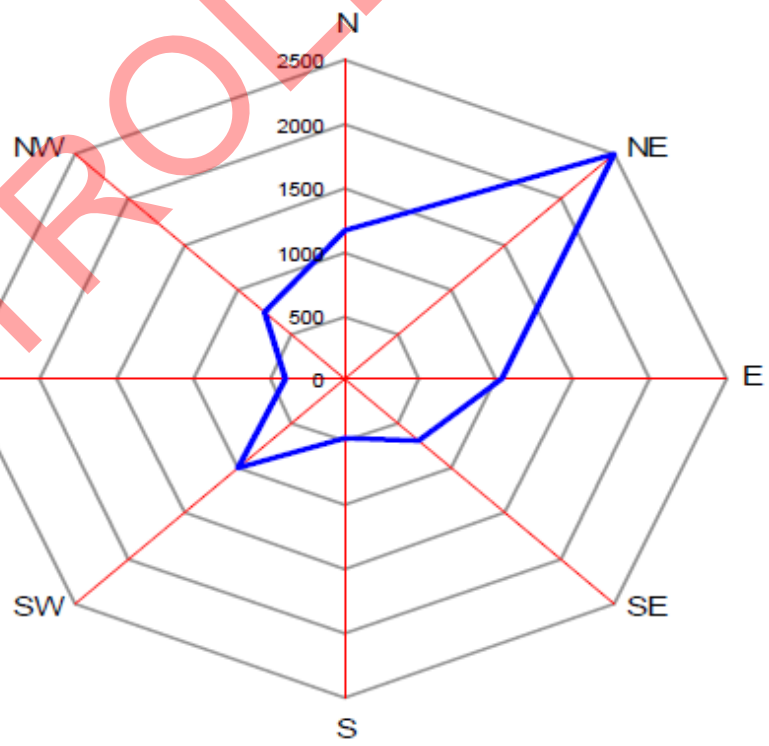
Maximum Wave Height :2.5 m

CONTROLLED COPY

Table-6 Maximum Wind Speed (Beaufort) and Directions according to observations of Aliaga Meteorology Station between 1984 and 1991.

	1984	**1985**	**1986**	**1987**	**1988**	**1989**	**1990**	**1991**
January	7 – S	8 - SW	6 - S	-	7 - S	5 - NE	5 - NE	5 - SE
February	7 - SW	7 - SW	6 - SW	-	8 - NE	9 - NE	5 - NE	5 - NE
March	7 - SW	5 - SW	5 - NE	6 - NE	5 - S	7 - SW	5 - SW	5 - NE
April	5 - NE	7 - W	5 - SW	8 - SW	5 - W	5 - NE	5 - S	5 - NE
May	8 - SW	5 - NE	5 - NE	4 - SW	5 - NE	7 - NE	5 - NE	5 - NE
June	6 - NE	5 - NW	4 - SW	4 - S	5 - W	4 - SW	5 - NE	5 - SE
July	4 - NE	7 - NE	4 - NW	5 - NE	5 - NE	5 - NE	5 - NE	5 - NE
August	4 - NW	6 - E	7 - NE	5 - NE	5 - NE	5 - NE	5 - NE	5 - NE
September	4 - SW	5 - NE		6 - E	5 - NE	5 - NE	5 - N	5 - NE
October	6 - NE	4 - SW		7 - NE	8 - NE	5 - SE	8 - NE	
November	7 - NE	6 - SW		6 - NW	5 - NE	5 - NE	5 - SE	
December	4 - NE	6 - NE		8 - NE	5 - S	5 - NE	5 - SW	

Figure-3 Aliaga Meteorology Station Wind Diagram



CONTROLLED COPY

4. Berth Information

4.1. Description and Parameters

Products handled	LNG
Type of Berth	Jetty
Ship maximum length overall	345 m
Ship maximum beam	55 m
Ship maximum arrival displacement	179000 t
Ship parallel body	110 m
Maximum depth alongside jetty	17 m
Maximum Draft	12 m
Unloading Rate	11,000 m3/h
Loading Arm Size	16”
Vapour Recovery	Yes
Max. Safe Working Load of Mooring Hooks	150 t
Berthing/unberthing during night	No/Yes
Minimum mooring arrangement	As per mooring study
Oil boom available	Yes
Emergency Stop available	Yes

4.2. Berthing Facilities

4.2.1. Dolphins

There are fourteen dolphins designed for berthing of vessels, four of them are designed as breasting dolphins whereas the rest for mooring. All dolphins are equipped with quick release mooring hook assemblies.

Super Cell type Bridgestone fenders are installed on all breasting dolphins.

CONTROLLED COPY

4.2.2. Mooring Hooks

The mooring hooks installed on twelve dolphins are quick release type complete with integrated electrically operated capstan and load monitoring system.

The type and safe working loads (SWL) of hooks are as follows:

Mooring dolphins (MS, M1, M2, M7, M8 and MN) : Triple hook assembly SWL 150 tons each

Mooring dolphins (M3, M4, M5 and M6) : Double hook assembly SWL 150 tons each

Outer breasting (B1, B2, B3 and B4) : Double hook assembly SWL 150 tons each

All mooring hooks are equipped with load cells to read mooring line loads and can be released by buttons installed on them or remotely by control panel located on the jetty deck and control room.

4.2.3. Ship Services

There is no service or utilities envisaged to provide from the jetty except liquid nitrogen. Liquid nitrogen is loaded to the ship by flexible hoses. Hoses are 2 inches diameter and 24 meters length and connection is located on the gangway. Liquid nitrogen line to the gangway is fed from the shoreline by trucks.

4.2.4. Fire Fighting Facilities at Jetty

The jetty is equipped with:

- Water deluge systems to protect the unloading arms, gangway and supporting structure of remote fire water monitor,
- Hydro-Chem (dry-chemical) monitors at the top of the Gangway structure and a separate fire monitor tower.
- Fixed firewater monitor at the pipe rack crossover bridge on jetty deck.
- Fixed foam generator on the LNG sump,
- 4” 150#RF, international firewater connection for ship connection.
- Mobile firefighting equipment to assist firefighting at jetty.
- Automatic gas detection system to indicate to presence of gas, fire and LNG leakage.

4.3. Jetty Facilities

4.3.1. Layout of Jetty

The Jetty platform houses the loading/unloading arms, the gangway for access to ship, jetty control room on the gangway structure, security house, loading/unloading lines, utilities, firefighting facilities and accessories. The access to the shore is by a platform of 190 meters long which carries pipe rack, walkway and access road for trucks.

CONTROLLED COPY

4.3.2. Cargo Handling System

Cargo loading/unloading system consists of four nos. 16 inches 150# LNG arms, one 16 inches 150# vapor return arm, one 32" LNG (liquid), one 10" vapor return and one 6" LNG circulation lines, ESD control valves and related instrumentation.

4.3.3. Loading Arms

The loading/unloading arm system consists of five arms, manufactured by SVT, all 16 inch which are equipped with hydraulic coupling system (QC/DC). Four of which for liquid and one for vapor return.

Design Data:

The normal operating conditions for each LNG arm are as follows:

- Flow rate : 3,667 m^3/hr max.
- Flange Rating : 150#, 16" ANSI B 16.5
- Design wind speed (operating): 22.7 m/s

The normal operating conditions for the vapor arm are as follows:

- Flow rate : 14,985 Nm^3/h max.
- Flange Rating : 150#, 16" ANSI B 16.5

Loading Arm Features

1. The marine loading arms are dock mounted with articulated ball bearing swivel joints. They are all fitted with:
   - Double ball valve and PERC (Powered emergency release coupling)
   - Hydraulic quick connect/disconnect coupling (QC/DC) for connection to the ship manifold flanges with a drip flanges and hooks.
   - An electrical isolation flange located within each outboard arm.
   - Two stages over-extension alarm system included for warning operating personnel that arms are approaching their maximum allowable reach for both drift and slewing. The second stage alarm shall activate the emergency release system.
   - An adjustable support jack located at the outboard arm terminal swivel to alleviate a portion of the load on the ships manifold.
2. The arms are normally operated from a portable remote-control panel. A back-up control pack is provided inside the Jetty Control Room.
3. A spare hydraulic unit and emergency power supply system for a power outage.

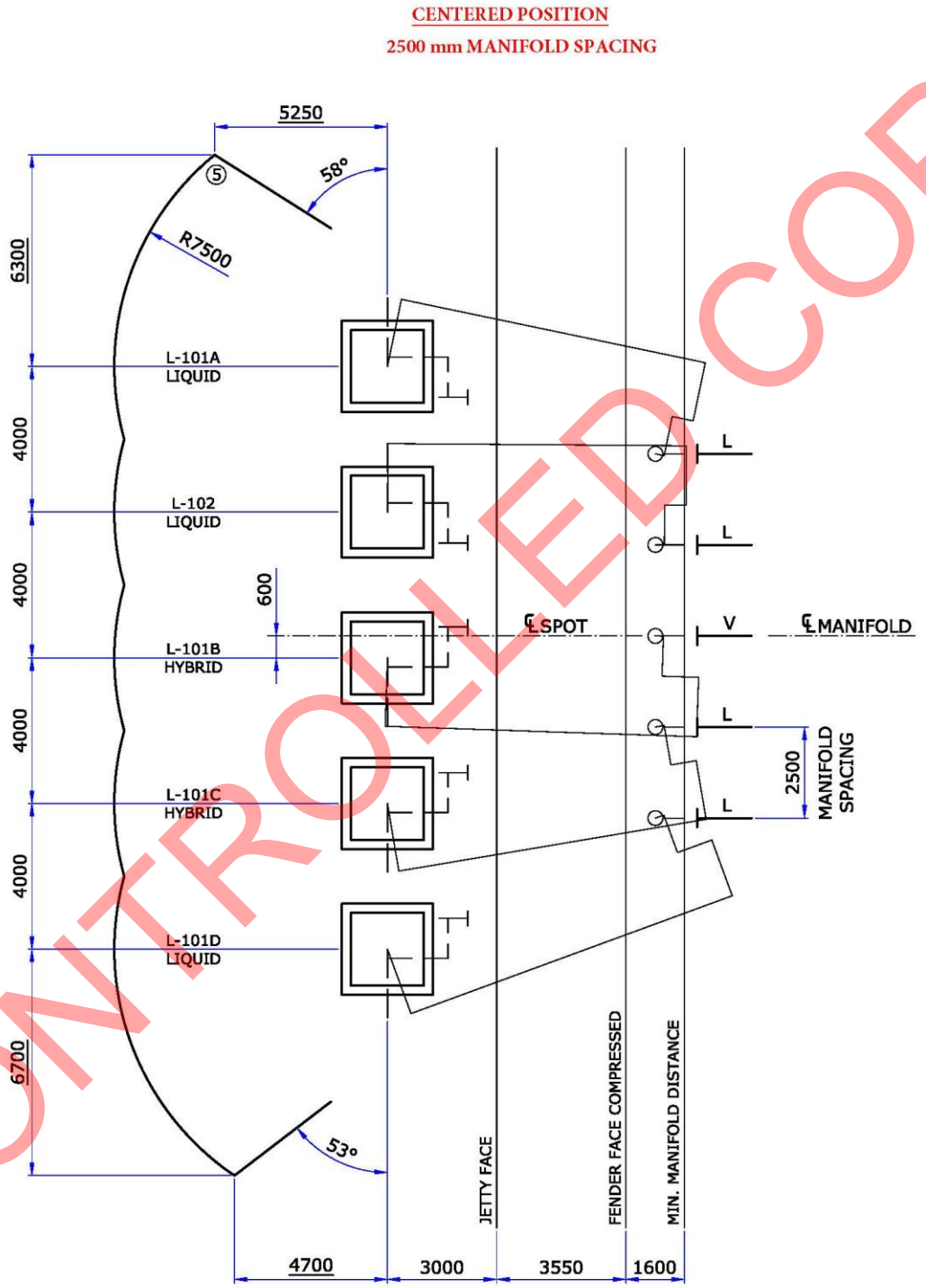
CONTROLLED COPY

4. Position monitoring system is integrated with the Marine Loading Arms's system (microprocessor system to determine end of arm position relative to working envelope with video monitor in the Terminal Control Room and Jetty Control Room).
5. After connection to the ship's flange, with the hydraulic control in neutral, the arm is free to follow the normal movements of a properly moored ship at berth.

Working Envelopes and Dimension and Operating Limits of the Unloading Arms are shown at Drawing-5 and Drawing-6.

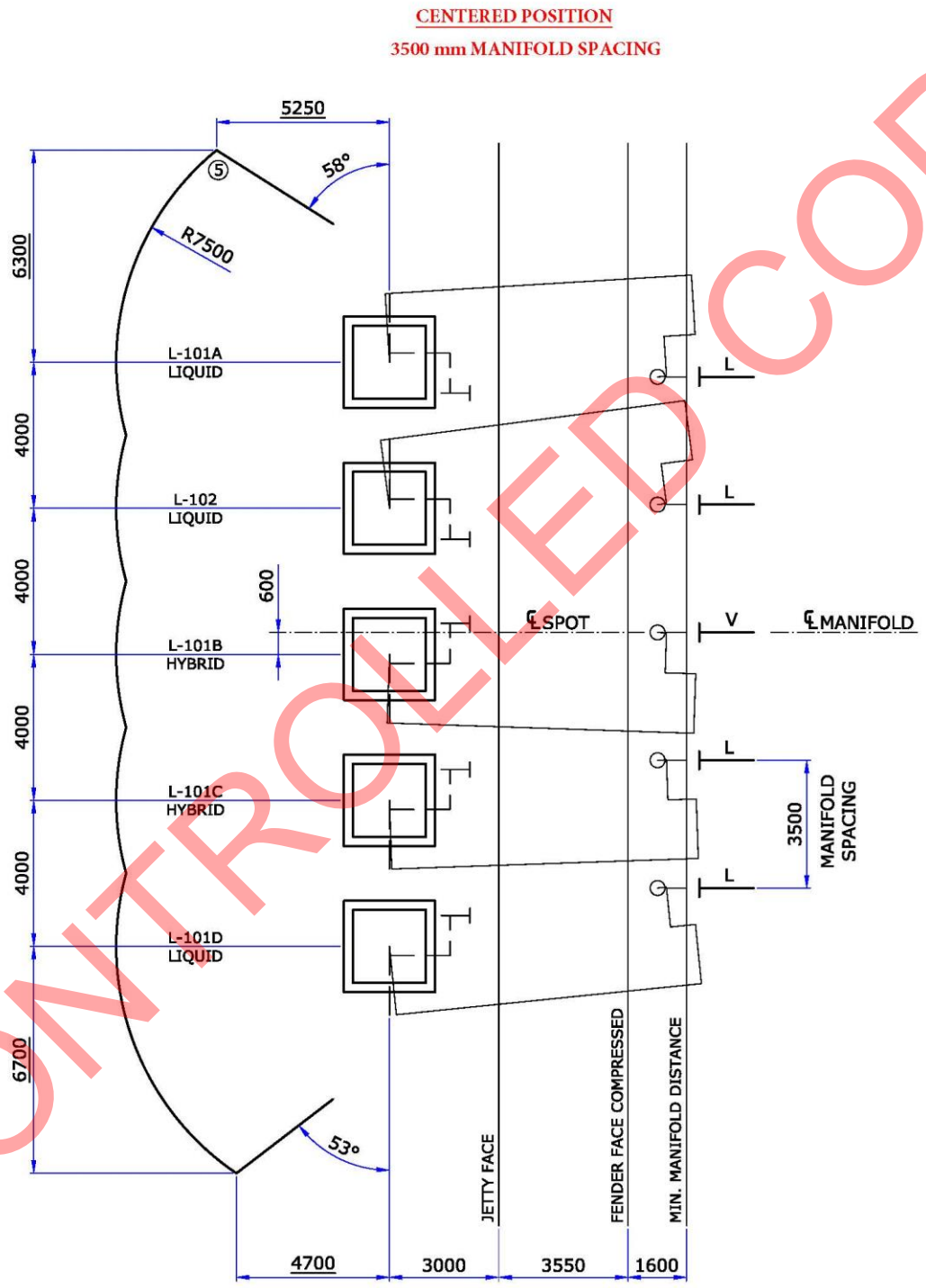
CONTROLLED COPY

Drawing-5 Working Envelope of Unloading Arms



CONTROLLED COPY

Prepared by	Checked by	Approved by
Operations Manager	Terminal Operations Director	General Manager



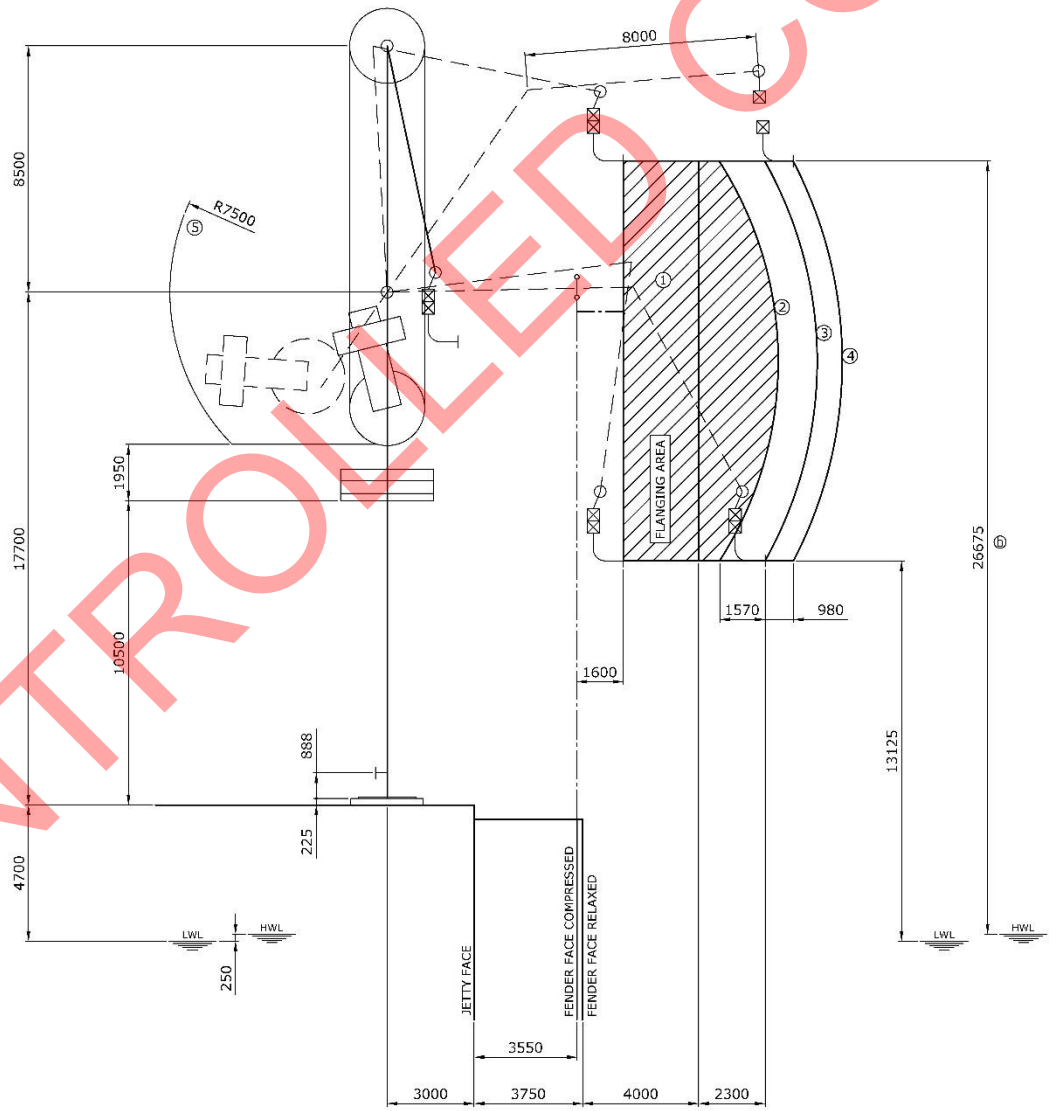
CONTROLLED COPY

Prepared by	Checked by	Approved by
Operations Manager	Terminal Operations Director	General Manager

Drawing-6 Dimensions and Operating Limits of Unloading Arms

4.4. Terminal Facilities

① WORKING AREA
② ESD1
③ ESD2
④ LIMIT LINE
⑤ COUNTERWEIGHT AREA



CONTROLLED COPY

The Terminal includes the following main features:

- A 400 m long jetty and a berth with available draft of 17 meters. The minimum receivable vessel size is 60,000 m³ and maximum vessel size is 266,000 m³.
- A 42 m. long tugboat jetty,
- 16'' 150 # Liquid and vapor return loading/unloading arms,
- Two nos. 140,000 m³ LNG storage tanks,
- BOG management and vaporizing system,
- Utility systems,
- Control, security, safety and monitoring systems,
- A 36 inches diameter pipeline to connect the Terminal to the National Gas Grid.

The access to the Terminal jetty location is direct from the open sea, north of Izmir; the final approach for berthing is through deep water and clear of marine traffic.

4.4.1. Main Equipment

4.4.1.1. LNG Tanks

There are two LNG storage tanks each with a capacity of 140,000 m³. The tanks are full containment type comprising of inner tank made up of 9% nickel steel and a post tensioned concrete outer tank with high grade carbon steel liner on inside. Each of the two storage tanks contains three well mounted submerged type LNG pumps for sending the LNG to BOG condenser; discharge pressure of pumps is 7.2 bara.

4.4.1.2. Send out Pumps

Fourteen multistage canned type centrifugal pumps are provided to transfer LNG from BOG condenser to the vaporizers and send out system.

4.4.1.3. Vaporizers

Sea Water Shell and Tube Vaporizers (STV): There are ten shell and tube type vaporizers where LNG is vaporized against circulating sea water.

Submerged Combustion Vaporizer (SCV): The terminal is equipped with one submerged combustion vaporizer.

4.4.1.4. Compressors

There are five boil-off gas (BOG) compressors with a capacity of 4,930 kg/hr (5,730 Nm^3/hr) each and, one pipeline compressor with a capacity of 4,930 kg/hr (5,730 Nm^3/hr) at the Terminal.

4.4.1.5. BOG Condenser

CONTROLLED COPY

One BOG condenser is provided to manage and condensate the boil-off of the tanks during the ship loading/unloading and normal send-out operations.

5. Pre-Arrival Communications

5.1. Pre-Arrival Information

5.1.1. Message Upon Leaving Port of Loading

Following information shall be sent by Master of the Vessel to the Terminal promptly after completion of loading:

- Date and time of departure
- E.T.A.
- LNG loaded:
  - Quantity in cu.m
  - Quantity in mT
  - Quantity in MJ and mmbtu
  - GHV of Gas in MJ/cu.m. and mmbtu
  - Density in Kg/cu.m
  - Temperature in Deg. ^{0}C and pressures in the ship's cargo tanks.
  - Composition in mol %
  - Copy of the cargo documents
  - Cargo discharge Plan

The master shall confirm that the ship´s deck cargo lines will be cooled and drained back to the cargo tanks just before the Aliaga pilot boards the ship together with last 6-hour ETA Notice.

5.1.2. Estimated Time of Arrival (E.T.A)

Immediately upon sailing from the Loading Port; Position of the vessel and E.T.A is to be reported immediately and subsequently every week and from 4 days before E.T.A, every 24 hours by way of fax or e-mail to the Terminal and to shipping agent. Besides that, the LNG vessel has to report the time of arrival 48 h, 24 h, 6 h and 1 h prior to arrival at the Terminal (Initial calling 1 h prior to arrival: by way of VHF CH 16).

If Vessel´ departure load port falls into the last 7-day ETA window, Vessel is to give "TENTATIVE" ETA notices to the Terminal subject to departure load port and confirm it upon departure load port.

Thereafter departure load port message; In each ETA notice the master will advise the terminal of the average cargo temperature in each of the ship´s cargo tanks and also the cargo tank vapor space pressure, in millibars Absolute, in each of the Ship´s cargo tanks.

Vessel master shall give EgeGaz LNG Terminal the following ETA change and reason notices:

CONTROLLED COPY

Between Departure load port and last 96-hour ETA Notice, Vessel is to give immediate corrected ETA Notice if ETA changes more than 6 hours,

Between Last 96hour ETA Notice and Last 48 ETA Notice, Vessel is to give immediate corrected ETA Notice if ETA changes more than 3 hours,

Between Last 24-hour ETA Notice and Last 6-hour ETA Notice, Vessel is to give immediate corrected ETA Notice if ETA changes more than 1 hour.

5.1.3. Notice of Readiness

The Master of LNG Ship shall tender the customary Notice of Readiness as per charterers' instructions of the vessel.

5.1.4. Pre-Arrival Information

The Master of the vessel has to send to the Terminal, by fax, an equipment status report on which she declares, according to her best knowledge, if there exists any defect either at the vessel or any equipment

Masters are obliged to immediately report to the terminal any defects or deficiencies that may affect the safety or the performance of operations to be conducted whilst the vessel is within the confines of the port and/or when the vessel is at the berth. Access to the port can either be granted or refused, depending on the kind of defects, if any exists; the terminal shall not be responsible of any cost that may occur due to such a refusal, in case it ever happens.

In addition to the 72hr message Masters are obliged to carry out additional tests as per Form-4 Pre-arrival Check List. Any defects concerning these checks shall be immediately reported to the Terminal.

The Master of the ship shall confirm all checks been made at the pre- unloading meeting.

The Master shall produce confirmation of such checks to the Terminal during the Pre-Unloading / Loading Meeting. Aliaga Port Authority requires that all vessels calling at LNG Terminal is required to provide Pre Arrival Information consistent with International Ship and Port Security (ISPS) Code together with the 72hrs notification of arrival. See Form-5 Pre-Arrival Information for ISPS Code.

5.2. Berthing and Mooring

5.2.1. Pilotage

Pilotage is compulsory for LNG vessels navigating within the Port Limits. One pilot will board the vessel prior to approaching the jetty at the limit of outer harbor between the Ilica Cape and Tavsan Island (38 50'11"N-026 51'38"E) and will stay on board until the vessel leaves the jetty after the unloading/loading operation.

CONTROLLED COPY

Pilot boarding facilities shall comply IMO requirements.

Pilotage is provided by third party, in line with local regulations.

5.2.2. Escort (Manoeuvring) & Stand by Tug Boats

While approaching to the jetty, after the limit of outer harbor, for LNG vessels up to 200,000 m^3 three or four tug boats, providing at least 150 tonnes Bollard Pull for LNG vessels more than 200,000 m^3 at least 4 tug boats providing 240 tonnes Bollard Pull, to escort the vessel with the vessel stopped in the water. These tug boats will continuously communicate with the vessel. They will maintain close station with the vessel as required by the Master on the advice of the pilot.

Two tug boats stay at the terminal tug boat jetty during the unloading to keep ready for emergency conditions as per Aliaga Port Authority instructions.

Tugs are provided by third party, in line with local regulations.

5.2.3. Mooring Boats

During the ship maneuvering, there are 2 mooring boats and boat & shore personnel provided by the Tug Companies. They are positioned at the forward and aft of the maneuvering vessel. Pilot onboard manages skippers of mooring boats for handling ship lines from vessel to shore personnel. As mooring boats safely maneuver around vessel & jetty and ensure timely mooring operation, shore personnel securely position ship lines onto the Terminal hooks.

All personnel shall have certificates approved by the Turkish Ministry of Transport and Infrastructure.

5.2.4. Berthing

Ships will always berth starboard side alongside unless previously discussed and agreed by the Vessel, the Terminal and the Aliaga Port Authority.

When the LNG vessel reaches the LNG Terminal limits, contact will then be made by portable VHF radio set with the LNG Terminal in order to test the communication system.

All communication during incoming maneuvers must be through **VHF channel 12,14,16.**

Before berthing operation, the Master will ask for permission to berth and the permission will be granted if the following conditions are fulfilled:

- Acceptance of the Ship by Aliaga Port Authority, (shall be confirmed by shipping agent)
- The technical condition of the vessel is in accordance with the vessel check list, (shall be confirmed by pilot)
- The terminal facilities are ready,

CONTROLLED COPY

- The actual wind speed is less than 10.3 m/sec,
- Visibility must be at least 750 meters, (at night 1,500 meters)
- Wave height at a level not affecting the reading of list and trim of the ship,

When permission is not granted, the LNG vessel will be directed to a safe anchorage area.

Only daylight berthing operation will be permitted.

Berthing operation of the LNG vessel will be carried out under the instructions of the pilot on board with tug boats escorting the vessel.

The berthing philosophy is to maneuver the vessel into a position parallel to the jetty by tugs and then push the vessel onto the breasting dolphins. To avoid damage to the fenders the vessel should be landed squarely on to the fenders with a contact speed not exceeding 0.06 m/second.

The Master and the Terminal will agree to the final ship position in accordance with the Ship and Terminal Cargo handling arrangements.

5.2.5. Mooring

The layout for the mooring arrangement of EgeGaz LNG Terminal Berths was developed to suit a wide range of LNG Tanker designs. All mooring and breasting dolphins are equipped with quick release mooring hooks with load sensors and are monitored with a Tension Monitoring system located in the Main Terminal Control Room and also can be monitored locally.

Triple Mooring Hooks

Breasting Dolphins

CONTROLLED COPY

AMooring calculation Study must be done with results included into ship and shore compatibility study carried out by the Vessel Operator.

General layout of the Terminal Jetty is given Section 3.2

1. The Master is responsible for providing adequate mooring lines and ensuring that they are properly tended whilst the LNG Vessel is alongside.
2. The Master is responsible to ensure that his vessel is securely moored having due regard to the forecasted weather conditions.
3. The Master is responsible to follow-up the weather conditions and forecasts during the vessel's stay alongside and to take necessary precautions.
4. The Master shall ensure that appropriate action taken in advance of deteriorating weather.
5. The Master shall ensure that sufficient & competent personnel maintain a strict mooring watch so as to ensure that adjustments are made to the moorings so as to prevent slack or over tight lines.
6. Any adjustment of mooring lines shall be carried out in controlled manner by competent personnel, as per recommendations contained in the latest edition of MEG.

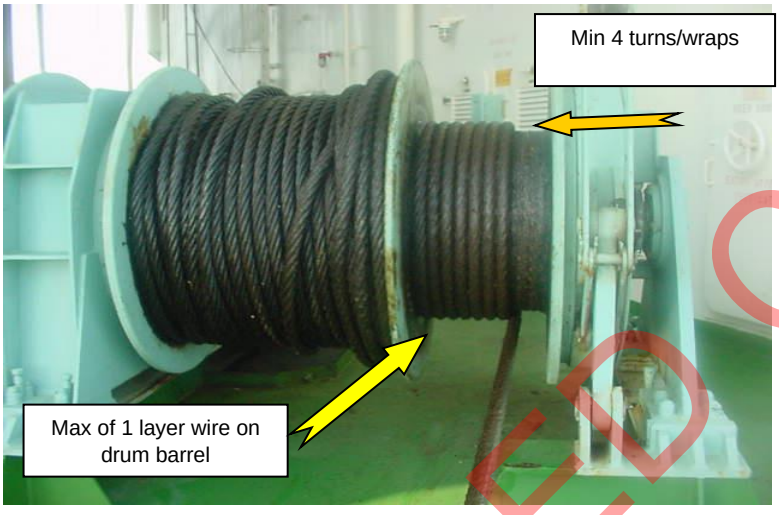
7. **UNDER NO CIRCUMSTANCE TOTAL MOORING LINE LOADS OF ANY DOLPHINS SHALL NOT EXCEED THE DESIGN LOADS OF DOLPHINS. ALARMS ARE SET AT 40 TONS FOR MOORING AND BREASTING DOLPHINS.**

8. **UNDER NO CIRCUMSTANCE SHOULD THE VESSEL BE ALLOWED TO MOVE OUT OF HER INITIAL BERTHING POSITION.**

9. The Ship's mooring equipment shall be maintained in good condition so as to meet the requirement of keeping the Ship in a proper and safe position alongside the Berth at all times.
10. Ships that are fitted with self-tension mooring winches must have these on manual control when at the Berth.

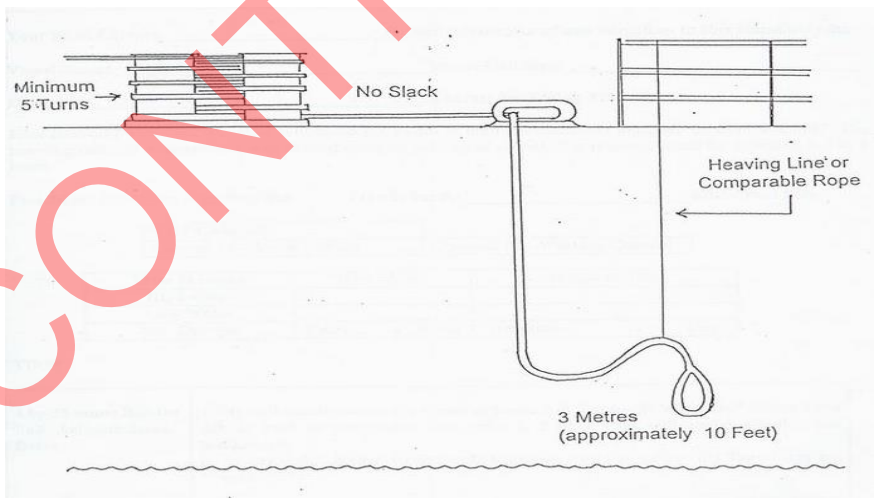
CONTROLLED COPY

11. Where spilt drums are fitted wire-mooring lines must be properly reeled in accordance with section 22.4 of MEG 4



5.2.6. Fire Wires

During the vessel's stay alongside, the fire wires should be positioned on the offshore bow and quarter. The eye of the wire shall be lowered to the level of the sea, with the inboard end led directly through a fairlead to the bitts, or bollard, where the wire shall be made fast using a minimum five turns. There shall be no slack between the fairlead and the bollard. A heaving line, or other comparable rope, shall be secured to the wire immediately inboard of the eye and hove up until the eye positioned at a height of approximately three (3) meters above the level of sea. The eye shall be maintained at that height at all times while the Vessel is alongside.



CONTROLLED COPY

6. Operational Information

6.1. Gangways

6.2. Pre-transfer Conference Policy

6.2.1. Cargo Handling Manual

Each Ship &The Terminal has detailed procedures for the operations of their respective facility. EYS-EK-007 EgeGaz ALIAGA LNG Terminal Cargo Handing Manual is deemed to be an interface document between the Ship and the Terminal Operations.

6.2.2. Cargo Handling Agreement

The procedures for the intended cargo handling must be pre-planned, discussed and agreed by the Terminal Responsible Persons and the Vessel Responsible Person prior to the start of the operations. See Form-11 “Cargo Handling Agreement”.

6.2.3. Control and Supervision of Operations

The Master shall ensure that at all times, sufficient crew must remain on board his Ship to ensure the proper handling of all cargo operations.

All shipboard cargo handling operations must be competently and constantly supervised on board by a designated responsible person or persons so appointed by the Master.

The Terminal Operations Manager is responsible for the operations from the shore.

The LNG unloading operations are overlooked and coordinated by the Terminal Loading Master.

6.2.4. Ship / Shore Pre-Unloading Meeting

A Pre-Unloading / Loading Meeting will be held in the Ship’s meeting room, in compliance with “ EgeGaz ALIAGA LNG Terminal Cargo Handling Manual”.

The designated responsible person(s) appointed by the Master to supervise the cargo handling operations on board the Ship shall attend this meeting so representing the Ship.

The following documents will be given by the Terminal to the Ship to be discussed, completed and agreed accordingly during this meeting:

CONTROLLED COPY

DOCUMENTS	IN AGREEMENT WITH
FORM-4 PRE-ARRIVAL CHECK LIST	Ship/Terminal
FORM-5 PRE-ARRIVAL INFORMATION	Ship/Terminal
FORM-7 COMMUNICATION AGREEMENT	Ship/Terminal
FORM-9 SAFETY DECLARATION	Ship/Terminal
FORM-10 SHIP/SHORE SAFETY CHECK LIST	Ship/Terminal/Port
FORM-11 CARGO HANDLING AGREEMENT	Ship/Terminal
EYS-PL-033 JETTY EMERGENCY EVACUATION PLAN	Ship/Terminal

Information and document exchange between the Ship and the Terminal is required, as defined below section.

6.2.5. Vessel Documentation

The ship is to provide the terminal the below listed documents and certificates which shall be reviewed during the compatibility study to be carried out for determining if the ship is acceptable at the terminal jetty, and thus be found as compatible and accepted for berthing.

Documents and certificates needed for compatibility study are given on Form 1, 2, 3, 4, 5 and needed for acceptance (for 'compatible' ships) are given on Form-6 all to be sent to the terminal by e-mail or fax, before the ship berths to jetty for unloading / loading.

The ships, which have not been found to be compatible or acceptable, shall not be permitted to berth at the terminal jetty.

It is the Masters' responsibility to ensure that the vessel has current versions of the following documents:

- Aliaga Port Regulations
- EgeGaz LNG Terminal Information Booklet
- Jetty Emergency Evacuation Plan
- Ship to Shore Check List

CONTROLLED COPY

Copies of EgeGaz LNG Terminal Port Regulations, Jetty Emergency Evacuation Plan and Ship to Shore Check List will be provided upon request to EgeGaz LNG Terminal Management or Commercial Operations Department.

6.2.6. Jetty Shutdown Systems

In accordance with SIGTTO regulations, in order to minimize the risks of potential hazards of a release of LNG, unloading / loading system is protected by two emergency shutdown systems: ESD-1 and ESD-2. ESD-1 allows the rapid shutdown of the unloading operation during an emergency.

ESD-2 uncouples the unloading arms quickly by activating the PERC's when manually initiated or the arms are overextended. This emergency situation (e.g. Potential unloading arm failure) is generally due to the ship moving outside the design envelope of the unloading arms.

6.3. Ship/Shore Safety Checklist

"Ship/Shore Safety Checklist" carried out in accordance with Form-10.

6.4. Ballasting Policy

The master of the ship is responsible for the ballasting operation.
The ballasting operation shall be supervised by an appointed officer.

Only clean ballast water may be discharged into the harbor waters. By clean ballast water is understood water that has been carried in a separate ballast tank that has not got any connection to a cargo tank. The discharge ballast water condition should comply with the IMO Ballast Water Management Convention requirements.

6.5. Loading Arm Connection and Disconnect/Draining Procedures

6.5.1. Liquid and Vapor Arms Connection

Unloading LNG from the Ship will normally be carried out by the terminal equipped through four Liquid and one Vapor loading arms on the Berth, unless previously agreed between the Ship and the Terminal during the Pre-Unloading Meeting. No other transferring device will be accepted for cargo handling operations.

Boil-off vapor required by the Ship will be sent back to the Ship through the vapor return arm, which will be connected prior to the liquid unloading arms.

The Master is required to ensure that the Ship's manifolds are ready for connection prior to the completion of berthing and that the Ship's manifolds water curtain has been started before the Terminal maneuvers the arms on board.

CONTROLLED COPY

Liquid unloading arms and Vapor return arm which are equipped with hydraulic coupling system (QCDC) will be connected by the Terminal upon Ship's confirmation of readiness, and after the Terminal is satisfied that the Vessel is in compliance with the requirements of the Ship Shore Safety Checklist.

The Master is required to provide assistance from his crew on Ship's manifold for communication purposes with the Terminal during arms maneuver and connection.

6.5.2. Liquid and Vapor Arms Disconnection

The terminal follows the latest version of SIGTTO recommendations LNG Marine Loading Arms and Manifold Draining, Purging and Disconnection

Procedure

The liquid and vapor arms will be purged with nitrogen (HC Content <1% By Vol) by the Terminal prior to disconnection.

The Master is required to ensure that the Ship's manifolds and cargo lines are ready for purging and disconnecting operations.

THE MASTER SHALL ENSURE THAT STEPS ARE TAKEN TO PREVENT MIS-OPERATION OF VESSEL ESD/MANIFOLD VALVES THAT MAY RESULT IN A RELEASE OF LNG OR VAPOUR THROUGH THE MANIFOLD AT THE TIME OF DISCONNECTION.

The liquid and vapor arms which are equipped with hydraulic coupling system (QCDC) will be disconnected and stowed one by one by the Terminal. The Master is required to provide assistance from his crew on the Ship's manifold for communication purposes with the Terminal during arm draining/purging and disconnection.

6.6. Cargo Transfer Policy

6.6.1. Cargo Measurement

The Master shall ensure that the cargo measurements are conducted in compliance with the EgeGaz Cargo Handling Manual & CTMS (Custody Transfer Measurement Survey) Manual.

For an accurate measurement it is required that LNG manifolds on ship's deck be in an identical inventory condition during both CTS (Custody Transfer Survey): either completely filled with LNG both during the opening custody transfer, or otherwise be drained during both the opening and closing CTS.

It is essential that CTMS operations are conducted with the cargo in a static condition

CONTROLLED COPY

The Terminal reserves the right to witness the cargo measurements on board the Ship in accordance with particular SPA (Sale and Purchase Agreement) or TSA (Terminal Service Agreement).

The use of gas for engine room requirements (firing in Diesel engines/burning in boilers) is only permitted where commercial and terminal requirements in respect of gas measurement are followed. In case of gas burning, terminal demands valid calibration certificate, which complies with the standard ISO 19970 for gas flow-metering device.

At LNG discharge operation, all measurements and gauging shall be witnessed and verified by an independent surveyor.

6.6.2. Cargo Handling Equipment Condition

The Master is required to ensure that all Ship's equipment used in cargo handling operations is properly manned and maintained at a good level throughout the cargo handling operations. Any deficiency that may impair the safety or the efficiency of the cargo handling operations must be immediately reported to the Terminal.

6.6.3. Unloading Start-up /Stopping

All unloading start-up and stoppage of the cargo handling operations will be at the Master's discretion.

The Terminal reserves the right to delay the unloading start-up or to require the unloading to be stopped at any time due to Terminal operational requirements.

The Master is required to provide reasonable notice to the Terminal for any changes or requirements that may affect the cargo handling operations. This does not change the Master's authority to deal with emergency situations.

The Terminal will provide reasonable notice to the Master for any changes or requirements that may affect the cargo handling operations.

6.6.4. Unloading Rates

The Master and the Terminal will agree to the maximum unloading rate at the pre-unloading meeting. The agreed unloading rate will be recorded on the cargo handling agreement. The Master and Terminal will monitor the unloading rates throughout all stages of unloading but particularly during the initial stages of cargo handling operations. The unloading rates changes will be mutually agreed between the Terminal and the ship.

Being the receiving end, the Terminal reserves the right to request unloading rate adjustment at any stage of the transfer operation without having to give any justification to the vessel

CONTROLLED COPY

THE MASTER HAS THE SOLE RESPONSIBILITY FOR THE SAFETY OF HIS SHIP AND CREW.

THE MASTER SHOULD ENSURE THAT ALL CREW MEMBERS REMAIN AT A SAFE DISTANCE FROM THE LOADING ARMS WHILST THEY ARE BEING MANEUVERED BY THE TERMINAL. THE MASTER SHOULD BE AWARE THAT A PERC RELEASE MAY OCCUR WITHOUT ANY NOTICE AT ANY STAGE ONCE THE LOADING ARMS ARE PUT IN FREE WHEELING MODE.

6.6.5. Ship / Shore Post Unloading Meeting

A post-unloading meeting will be held in the Ship's meeting room, in compliance with the EgeGaz LNG Terminal Cargo Handling Manual.

From the Terminal side, Operations Manager, HSE Department, Quality Systems Department, Marine Superintendent and Loading Master will attend this meeting.

The designated responsible person(s) appointed by the Master to supervise the cargo handling operations on board the Ship shall attend this meeting so representing the Ship.

6.7. Returning Boil off Vapor to Ship

During ship unloading, additional vapor generated in the Terminal tanks due to flashing of liquid and displacement as the tanks are filled, necessitates utilization of additional compressor capacity. The compressed gas from boil off compressor discharge flows to condenser and to ship.

Boil-off vapor required by the Ship will be sent back to Ship through the vapor return arm.

Boil-off vapor flow rate will be controlled and adjusted by the Terminal as per Ship's requirements and for monitoring the Ship tanks pressures.

6.8. Crude Oil Washing (COW)

Not Applicable

6.9. Safe Operations Requirements

6.9.1. Weather Precautions

The Master must be attentive towards the weather forecasts.

The Master is required to ensure that a vigilant watch is maintained on board the Ship to monitor any environmental changes to weather, wind, tide swell, that may affect cargo operations or the integrity of the moorings.

Terminal Adverse Weather Philosophy is given at Table-7.

CONTROLLED COPY

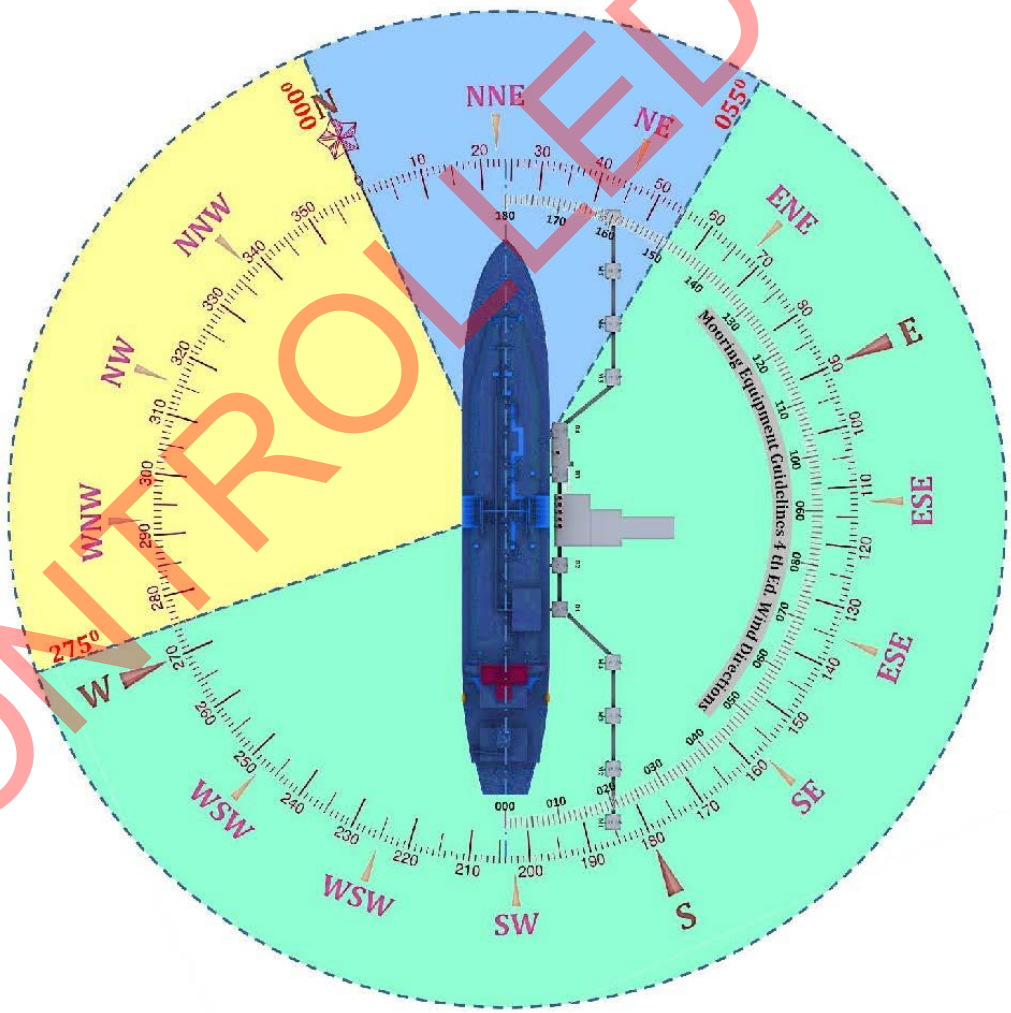
The decision whether the Ship should evacuate the berth, shall be made in consultation between the Ship's Master and the Terminal representative in consultation with Pilot on duty. The terminal shall not be responsible for any cost that may occur due to such a decision.

The terminal reserves the right to suspend operations and disconnect loading arms in the event of deteriorating weather.

During the period of a localized electrical storm, flood, high wind, earthquake and emergency at the Terminal, cargo operations shall be suspended and all cargo valves closed, whilst also ensuring that cargo tank pressures are controlled to avoid venting operations.

The following figure-4 is taken into account for the directions.

Figure-4 Wind Directions



Prepared by	Checked by	Approved by
Operations Manager	Terminal Operations Director	General Manager

CONTROLLED COPY

Table-7 Adverse Weather Philosophy

Environmental Condition 275° - 000° NW	**Environmental Condition 000° - 055° NE**	**Environmental Condition 055° - 275° S**	**Operation**	**Action**	**Comments**
Wind ≥ 20 kts* (10.3 m/s)	Wind ≥ 20 kts* (10.3 m/s)	Wind ≥ 20 kts* (10.3 m/s)	Berthing	Berthing suspended	
Wind ≥ 25 kts* (12.9 m/s)	Wind ≥ 27 kts* (13.9 m/s)	Wind ≥ 40 kts* (20.6 m/s)	Unloading	Unloading suspended	
Wind ≥ 25 kts* (12.9 m/s)	Wind > 30 kts* (15.4 m/s)	Wind > 45 kts* (23.2 m/s)	Unloading	Unloading arms to disconnect	Necessary precautions to take for safe disconnect of the unloading arms, considering presence of terminal staff and wind velocity.
Wind ≥ 27 kts* (13.9 m/s)	Wind > 32 kts* (16.5 m/s)	Wind > 50 kts* (25.8 m/s)	Unloading	Ship unberths	Decision to unberth to be made by Aliaga Port Authority, ship master and the terminal representative in consultation with pilot on duty.
Any wind speed					Terminal reserves the right to freely decide any actions to build up or maintain its safety and security, while berthing, unloading and unberthing, and such a decision to be obeyed by the ship.

CONTROLLED COPY

Lightening			Unloading	Suspend unloading, close all ship tank valves and vents. Manage cargo tank pressures to prevent inadvertent venting.	If lightening in immediate vicinity of the Terminal. Suspension of operation is mutually decided by the Terminal and Ship representative.
List > 3° Trim> 2,5 m			Unloading	Suspend Unloading close all unloading valves.	Ship is requested for remedy Q-FLEX 3m

* Average (Steady) wind speed over a 15 minutes period - as measured at EgeGaz Terminal whether monitoring equipment

CONTROLLED COPY

Prepared by	Checked by	Approved by
Operations Manager	Terminal Operations Director	General Manager

Aliaga Port Authority instructions are governing besides the ship's and terminal's decisions for berthing and unberthing.

Notes:

- Critical wave height is 1.7 meters for mooring safety.
- Critical wave height is 1.5 meters for the tugboat's maneuvering safety.
- In cases where the above table values regarding the departure of the ships are exceeded, a risk assessment is made between the parties and a decision is made. In the evaluations to be made on the wind speeds, first of all, the force loads on the mooring hooks are evaluated.

EgeGaz shall not be responsible for any cost that may occur due to delays and any other events which could happen following any decisions taken related to adverse weather conditions and their applications.

6.9.2. Stability / Draft

The Master is required to maintain appropriate trim and list and to retain sufficient positive stability to enable safe cargo handling operations and emergency unberthing.

The maximum Trim permitted is 2.5 meters (3 meters for Q-Flex vessels) by the stern. (See Table-7 Terminal Adverse Weather Philosophy)

The maximum List permitted is 2 degree. (See Table-7 Terminal Adverse Weather Philosophy)

Terminal reserves the right to suspend operations and disconnect loading arms and decide the ship to unberth in the event of maximum permitted trim and list values are exceeded. The terminal shall not be responsible for any cost that may occur due to such an action.

Masters are advised to frequently check the correct function of the Breasting Fenders.

6.10. Tank Cleaning and Tank Entry Policy

Tank entering and cleaning is strictly prohibited.

6.11. Inert Gas Systems Policy

If a ship is fitted with an inert gas system then this system should be fully operational (in accordance with Class requirements).

6.12. Surveyors/Sampling and Gauging

At LNG discharge operation, all measurements and gauging shall be witnessed and verified by an independent surveyor.

CONTROLLED COPY

6.13. Bunkering Policy

Whilst alongside the Terminal the bunkering is prohibited.

6.14. Pollution Prevention

Vessel is to carry required valid certificates (IOPP etc.).

6.14.1. Leaks and Pollution Prevention

THE VESSEL SHALL IMMEDIATELY REPORT ANY LEAKS OR POLLUTION INCIDENT, DURING SHIP IN TRANSIT TO AND FROM TERMINAL BERTH OR AT ANCHORAGE AREA TO THE PORT MANAGEMENT.

Any unused Ship cargo and bunker connections must remain tightly closed and blanked.

Deck scuppers, drain holes, and drip trays on the Ship within the vicinity of any potential pollution area must be suitably plugged and any accumulated water or effluent drained off as required.

In the event that any pollution as per the Port Limits occurs, regardless of cause of origin, the person in charge or responsible for operation, works or location where such pollution occurs, **shall immediately report the incident to the Terminal Management and Aliaga Port Authority via VHF Ch.16.**

Failure to report a pollution incident is a serious offense against the regulations and persons found contravening this requirement will be liable to heavy fines and prosecution by Turkish Courts.

A vigilant look out must be maintained by the vessel's crew in order to prevent and/or detect leaks or spillage during cargo handling or liquid nitrogen bunkering operations.

THE VESSEL SHALL IMMEDIATELY REPORT ANY LEAKS OR POLLUTION TO THE TERMINAL.

Loading Arm connections to the Ship will be leak tested with the Terminal nitrogen supply prior to the commencement of cargo unloading operations. The pressure used for this leak test will be agreed between the Ship and Terminal and will be dependent upon the maximum expected operating pressure for the planned operation. The maximum allowed pressure in the unloading arms will be detailed in the Cargo Handling Agreement.

6.14.2. Bilge Discharge

THE DISCHARGE OF BILGE EFFLUENTS, OIL, OR ANY MIXTURE CONTAINING OIL TO SEA IS STRICTLY PROHIBITED.

CONTROLLED COPY

The Terminal, having ballast and oily water reception facility, may take such wastes in case of pre-request before 96 hrs. to estimated time of arrival.

6.14.3. Waste Management

The disposal of garbage and liquid waste from ship to shore is possible if it does not delay the vessel schedule. It should be arranged through Ship Operator's Agent. Information for waste disposal is to be notified three days before entry into the port of EGEGAZ with the ship's waste notification form of the Port Authority of Aliaga.

Garbage storage facilities are available at the entrance of jetty. Storage facility has garbage waste containers separated into eleven categories in accordance with MARPOL Annex-V.

Liquid waste (MARPOL Annex I) such as bilge water, sludge and (MARPOL Annex IV) sewage accepted through independent pipelines. Waste oil (MARPOL Annex I) is taken to the jetty with plastic drums. During the discharging operations, spill equipment shall be provided near the pipe connection point for the prompt removal of any spillage on deck. If no permanent spill container is fitted, portable drip tray should be placed under the pipe connection point and, if possible, between connection of flexible hoses.

6.14.4. Gas Freeing

GAS-FREEING OF ANY SHIP'S TANKS TO ATMOSPHERE IS STRICTLY PROHIBITED ALONGSIDE THE BERTH.

6.14.5. Venting

Venting cargo vapor to the atmosphere is not permitted. Terminal has cargo vapor receiving facility. **Vapor unloading arm are used to send or receive of the ship cargo vapor.**

In the event of an emergency situation during which venting occurs, cargo handling operations will be immediately stopped. The Master is required to report to the Terminal and take all necessary action to prevent accidental venting.

6.15. Potable Water

Potable water supply is not available. Only service water is available with the connections 4" and 2" ANSI B16.5 flanges or international shore connection.

7. List of Drawings/Tables/Figures/Forms

7.1. List of Drawing

Drawing-1 Evacuation Plan

Prepared by	Checked by	Approved by
Operations Manager	Terminal Operations Director	General Manager

CONTROLLED COPY

Drawing-2:Gangway

Drawing-3 General Layout of the Terminal Jetty

Drawing-4 Jetty Mooring Hooks Plan

Drawing-5 Working Envelope of Unloading Arms

Drawing-6 Dimensions and Operating Limits of Unloading Arms

7.2. List of Tables

Table-1 Summary of Tone-Speech Alarms

Table-2 Emergency Actions

Table-3 Summary of all ESD-1 Valves Closing Times

Table-4 ESD/Communication Cable Pin Configuration

Table-5 Average Number of Windy Days between 1964-1990 from the data of Aliaga Meteorology Station

7.3. List of Figures

Figure-1 Ship-Shore Connection

Figure-2 Cause&Effect Diagram

Figure-3 Aliaga Meteorology Station Wind Diagram

Figure-4 Wind Directions

7.4. Forms

1. Conditions of Use
2. Documents and Certificates Needed for Compatibility Study
3. Documents and Certificates Needed for Being Accepted to The Terminal
4. Pre-Arrival Check List
5. Pre-Arrival Information for ISPS Code
6. Other Practical Security Related Information (Not Details of The Ship Security Plan) (If Required by Port Management)
7. Communication Agreement
8. ISPS Declaration of Security
9. Safety Declaration
10. Ship/Shore Safety Check List
11. Cargo Handling Agreement

CONTROLLED COPY

1. CONDITIONS OF USE FOR THE PORT OF EGEGAZ TERMINAL

1. CONDITIONS OF USE

Masters are requested to sign the 'Conditions of Use' as a prerequisite of entering the Port of **EGE GAZ A.Ş. (EgeGaz) Terminal.**

CONDITIONS OF USE FOR THE PORT OF EgeGaz TERMINAL

I,....., the Master ("Master") of the Ship ..... ("Ship"), owned by ..... ("Owner") whose address is at ..... hereby acknowledge receipt of these Conditions of Use ("Conditions of Use") of the EgeGaz Terminal Port and a copy of the EgeGaz Terminal Regulations and Information ("EgeGaz Terminal Information Booklet" -Port Regulations-) and agree to be bound by their terms.

1. In these Conditions of Use, the following expressions shall have the meaning assigned to each of them:

"Company" means EgeGaz and its affiliated companies operating at the Terminal, as well as, any of their directors, officers, agents, employees and servants in whatever capacity they may be acting;

"Terminal Facilities" mean all facilities, assets, equipment and installations of whatever nature existing at the Terminal as of the date hereof, whether the same are fixed or movable, including, without limitation, the berth, unloading facilities and any such or like facility, asset, equipment or installation;

"Terminal Management" means EgeGaz Terminal Management; and,

"Port Services" mean any service, advice, instruction or assistance tendered, provided to the ships, including, without limitation, pilotage, towage, tug assistance, mooring or other navigational services, whether the same are provided by the Terminal or others.(regardless of the providing parties)

Other terms used in these Conditions of Use but defined in the Port Regulations shall have the same meaning assigned to them in the Port Regulations unless the context otherwise dictates.

2. These Conditions of Use shall apply in addition to the Port Regulations and any other laws, rules, regulations or procedures enacted, promulgated, declared or issued by the Government of the Republic of Türkiye or by the Terminal Management.

3. The Master shall at all times and under all circumstances be responsible for the safe and proper operation and navigation of the Ship. Whilst the Company shall exercise every reasonable care, skill and diligence to ensure the proper exercise and operation of the Port Services and the Port Facilities, the Company, nonetheless, makes no representation, guarantee or warranty as to the adequacy, suitability, fitness for purpose or safe conduct thereof.

CONTROLLED COPY

1. CONDITIONS OF USE FOR THE PORT OF EGEGAZ TERMINAL

4. Except to the extent caused or contributed to by Company's sole fault or negligence, The Master and the Owner shall be responsible for, indemnify and hold harmless the Company from and against all claims, losses, damages, delays, costs (including legal costs), expenses and liabilities of every kind and nature resulting from any personal injury including fatal injury, illness or disease, *arising out of or in connection with the Ship's use of (a) the Port, (b) Port Services or (c) the Terminal Facilities* regardless of whether or not the negligence, act, omission, or default, of the Master or the Ship caused or contributed to such claim, loss, damage, delay, cost, expense or liability.

5. Except to the extent caused or contributed to by Company's sole fault or negligence, The Master and the Owner shall be responsible for, indemnify and hold harmless the Company from and against all claims, losses, damages, delays, costs (including legal costs), expenses and liabilities of every kind and nature resulting from any loss and/or damage to any property including, without limitation, the Terminal Facilities, *arising out of or in connection with the Ships use of (a) the Port, (b) Port Services or (c) the Terminal Facilities* regardless of whether or not the negligence, act, omission, or default of the Master or the Ship caused or contributed to such claim, loss, damage, delay, cost, expense or liability.

6. Except to the extent caused or contributed to by Company's sole fault or negligence, the Master and the Owner shall be responsible for, indemnify and hold harmless the Company from and against all claims, losses, damages, delays, costs (including legal costs), expenses and liabilities of every kind and nature resulting from any loss and/or damage to any third party, *arising out of or in connection with the Ship's use of (a) the Port, (b) Port Services or (c) the Terminal Facilities* regardless of whether or not the negligence, act, omission, or default of, the Master or the Ship caused or contributed to such claim, loss, damage, delay, cost, expense or liability.

7. If the Ship or any person on board or any object, thing, article, substance, equipment or installation of the Ship or on its board sinks, grounds or otherwise becomes or is likely to become, an obstruction, threat, hazard or danger to navigation, operations, safety, health, security or environment in or adjacent to the Terminal, then the Master and/or the Owner shall upon receiving the Terminal Management request, proceed immediately and without delay to clear, remove or deal with the obstruction, threat, hazard or danger within the period specified in the written notice served by the Terminal Management. Failing such immediate action by the Master and/or Owner, or if the said obstruction, threat, hazard or danger, in the sole opinion of the Terminal Management, is delaying, hindering, interfering with or in any way affecting the navigation, operation, safety, health, security or the environment in or adjacent to the Terminal, then the Terminal Management shall be entitled to take all reasonable measures as the Terminal Management deems appropriate to clear, remove or deal with the said obstruction, threat, hazard or danger, and the Master and Owner shall be responsible for, indemnify and hold harmless the Terminal Management from and against any claim, loss, damage, delay, cost, expense or liability associated therewith.

8. For the avoidance of doubt, any liability incurred by the Master and/or Owner by operation of these Conditions of Use shall be joint and several.

9. Without prejudice to the liability of the Master and/or the Owner, the Master shall immediately report to the Terminal Management any accident, incident, claim, damage, loss, or unsafe condition or circumstance. Any such report shall be made in writing and signed by the Master. The Terminal

CONTROLLED COPY

1. CONDITIONS OF USE FOR THE PORT OF EGEGAZ TERMINAL

Management shall be entitled to inspect and investigate any such report, without prejudice to any rights, remedies, or liabilities arising therefrom.

10. Notwithstanding anything in these Conditions of Use to the contrary, the liability of the Owner and/or the Master shall not exceed USD 150 million (United States Dollars one hundred and fifty million) in the aggregate any one event.

11. These Conditions of Use shall be construed, interpreted and applied in accordance with the laws of the Republic of Türkiye, and the parties named herein submit exclusively to the jurisdiction of the courts of the Republic of Türkiye.

Signed and acknowledged:

By:

Date:

Time:

CONTROLLED COPY

2. DOCUMENTS AND CERTIFICATES NEEDED FOR COMPATIBILITY STUDY

FORM "C"

2. DOCUMENTS AND CERTIFICATES NEEDED FOR COMPATIBILITY STUDY

'Form "C" Gas' document which covers following datas;

No			
1	SHIP'S NAME AND CALL SIGN		
2	IMO NO		
3	PORT OF REGISTRY		
4	GROSS/NET TONS:/CAPACITY/TANK CAPACITIES		
5	LENGTH OVER ALL (m)		
6	DRAFT (LOADED) (m)		
7	CONFIRM POLLUTION COVER		
8	DATA ON INERT GAS SYSTEM		
9	DATA ON SMOKE/FIRE DETECTION AND FIXED FIRE EXTINGUISHING SYSTEMS FULLY OPERATIONAL		
10	SIZE, RATING AND STANDARDS OF CARGO MANIFOLD CONNECTION		
11	DETAILED DIMENSONAL DATA ON MANIFOLD LAYOUT		
12	INMARSAT No.	TELEFAX No.	EMAIL.
13	DOES VESSEL COMPLY WITH ISM CODE		
14	VALIDITY OF ISM DOC/SMC AND ISSUING AUTHORITY		
15	DOES VESSEL COMPLY WITH ISPS CODE		

CONTROLLED COPY

3. DOCUMENTS AND CERTIFICATES NEEDED FOR BEING ACCEPTED TO THE TERMINAL

3. DOCUMENTS AND CERTIFICATES NEEDED FOR BEING ACCEPTED TO THE TERMINAL

No	
1	NAME OF THE SHIP
2	VOYAGE/CARGO NO
3	CONFIRMATION OF TRUTH OF THE DOCUMENTS AND CERTIFICATES ISSUED TO THE TERMINAL FOR COMPATIBILTY STUDY
4	OFFICER MATRIX
5	ACCIDENT REPORT COVERING FIVE RECENT LOADING, TRANSPORT AND UNLOADING
6	CONFIRMATION OF PRESSURE, TEMPERATURE AND LEVEL INSTRUMENTS IN THE CARGO TANKS ARE IN GOOD OPERATING MODE AND DATES OF VALIDITY OF CERTIFICATES FOR THESE INSTRUMENTS
7	ANY DEFECT THAT MAY EFFECT THE UNLOADING OPERATIONS AS WELL AS CAPABILITY TO MANEUVRE OR BERTH.
8	NAME OF P&I CLUB AND VALIDITY OF CERTIFICATE
9	THE LAST TEST DATE OF EMERGENCY SHUT DOWN SYSTEM OF THE SHIP AND CONFIRMATION THAT IT IS IN GOOD OPERATING MODE
10	CONFIRM THAT THE MANIFOLD VALVES ARE CHECKED TO REMOTELY OPERATE FOR OPEN/CLOSE, AND IF IN GOOD OPERATING MODE, TYPE OF VALVES AND CLOSING TIMES.
11	MAX. UNLOADING RATE OF THE SHIP (m^3/hr)
12	ESTIMATED TIME OF UNLOADING
13	CONFIRMATION OF CONVENIENCE TO STANDARTS OF MANIFOLD FLANGES (16”150 #) AND GASKET SURFACES
14	CONFIRM EXISTENCE OF 60 MESH (0.25 mm) FILTER ON THE SHIP FLANGES AT THE CONNECTION TO THE UNLOADING ARMS OF THE TERMINAL
15	IN THE LAST SIX MONTHS, ACCORDING TO THE OCIMF RULES, SIRE REPORT MADE BY CERTIFIED THIRD PARTY INSPECTION OR THE COMPLETENESS OF ALL THE POINTS MENTIONED IN THIS REPORT ARE TO BE CONFIRMED
16	RELATED PAGES OF PORT REGULATIONS OF EGE GAZ A.Ş. ALIAGA LNG TERMINAL TO BE DULY SIGNED BY THE SHIP MASTER AND RETURNED TO THE TERMINAL

CONTROLLED COPY

4. PRE-ARRIVAL CHECK LIST

THE FOLLOWING CHECKS SHALL BE COMPLETED THREE DAYS PRIOR TO ARRIVAL AT EGE GAZ A.Ş. ALIAGA TERMINAL.

Description	Tick
CARGO MANIFOLD WATER SPRAY SYSTEM TESTED AND PROVEN OPERATIONAL	
GAS FREE CONDITION OF HOLD SPACES BY INERT GAS	
OPERATION OF CARGO SYSTEM REMOTE CONTROL VALVES AND THEIR POSITION INDICATING TESTED AND LEAKAGE CHECK BEEN MADE	
ALARM FUNCTION OF FIXED GAS DETECTION SYSTEM	
CARGO SYSTEM INSTRUMENTS ALARM AND SET POINTS	
OPERATION OF ESD	
CONFIRM THAT, BEFORE COMMENCEMENT OF UNLOADING, SHIP TANKS AVERAGE PRESSURE ARE EQUAL OR LESS THAN 80 MILLIBAR GAUGE	

CONTROLLED COPY

5. PRE-ARRIVAL INFORMATION FOR ISPS CODE

PRE-ARRIVAL INFORMATION TO BE PROVIDED BY SHIPS INTENDING TO PORT OF EGEGAZ

FORM A

5. PRE-ARRIVAL INFORMATION FOR ISPS CODE

PRE-ARRIVAL INFORMATION TO BE PROVIDED BY SHIPS INTENDING TO PORT OF EGE GAZ A.Ş.

FORM A

1. International Ship Security Certificate (ISSC) or Interim ISSC

   Issuing Authority :

   Dates of Issue and Expire :

2. The current security level of the Ship :
3. The security levels in the previous ten calls at port facilities :
4. Any special or additional security measure taken by the ship in any previous port where it has conducted a ship/port interface during the period covered by previous ten calls at port facilities.

   a) Measures taken while visiting a port facility located in the territory of a state which is not a Contracting Government

   b) Any Declarations of Security that were entered into with port facilities or other ships.

5. Confirmation that appropriate ship security procedures were maintained during any ship-to-ship activity during the period covered by previous ten calls at port facilities.

   a) Measures taken while engaged in a ship-to-ship activity with a ship flying the flag a State which is not a Contracting Government

   b) Measures taken while engaged in a ship-to-ship activity with a ship flying the flag of a Contracting Government but not required to comply with the provisions of SOLAS Chapter XI-2 and part A of the ISPS Code.

   c) In the event that persons or goods rescued at sea are on board all known information about such persons or goods, including their identities when known and the results of any checks run on behalf of the ship to establish the security status of those rescued.

CONTROLLED COPY

6. OTHER PRACTICAL SECURITY RELATED INFORMATION (NOT DETAILS OF THE SHIP SECURITY PLAN) (IF REQUIRED BY PORT MANAGEMENT)

FORM B

6. OTHER PRACTICAL SECURITY RELATED INFORMATION (NOT DETAILS OF THE SHIP SECURITY PLAN) (IF REQUIRED BY PORT MANAGEMENT)

FORM B

1. Information contained in the Continuous Synopsis Record (CSR).
2. Location of the ship at the time the report in made.
3. Expected time of arrival of the ship in port.
4. Crew list.
5. General description of cargo aboard the ship.
6. Passenger list.
7. Information regarding who is responsible for appointing the members of the crew or other persons currently employed or engaged on board the ship in any capacity on the business of that ship.
8. Information regarding who is responsible for deciding the employment of the ship.
9. In cases where the ship is employed under the terms of charter party (ies), who are the parties to such charter party (ies).

CONTROLLED COPY

7. COMMUNICATION AGREEMENT

7. COMMUNICATION AGREEMENT

AN EXPLOSION PROOF PYLE 37-WAY NATIONAL CONNECTOR HAS BEEN CONNECTED TO YOUR SHIP. IT WILL ENABLE THE FOLLOWING MEANS OF COMMUNICATIONS:

E.S.D FROM THE SHIP (Emergency shut-down)	→	Uni-directional. Can be activated at any time from the Ship in case of emergency. Inform Terminal as far as possible before use. (See appendix-1.10.1)
E.S.D FROM TERMINAL (Emergency shut-down)	→	Uni-directional. Can be activated at any time from the Terminal in case of emergency. Inform Ship as far as possible before use.
☎HOT LINE	→	Bi-directional. To contact directly the TCR (Terminal Control Room) in case of an emergency.
☎TERMINAL EXCHANGE	→	Bi-directional. To exchange normal information between Ship and Terminal during cargo handling operations. **Phone : 3144**
☎PUBLIC LINE	→	Bi-directional. Enable the Ship to use the Turkish National telephone network, "TURK TELEFON" **Phone :+90 232 618 20 82**

FOR SHIP (person in charge)	FOR TERMINAL (person in charge)
Name.....	Name.....
Position.....	Position.....
Signature.....	Signature.....
Time	Date ...../...../.....

CONTROLLED COPY

8. ISPS DECLARATION OF SECURITY

8. ISPS DECLARATION OF SECURITY

DECLARATION OF SECURITY BETWEEN A SHIP AND A PORT FACILITY

Name of Ship	
Port of Registry	
IMO Number	
Name of port Facility	

This Declaration of security is valid from .....until ..... for the following activities. (list the activities with relevant details)

Under the following security levels:

Security level (s) for the ship	
Security level(s) for the port facility	

The port facility and ship agree in the following security measures and responsibilities to ensure compliance with the requirements of Part A of the International Ship and Port Facility Security (ISPS) Code.

	The affixing initials of the SSO or PFSO under these columns indicates whether the activity will be done, in accordance with the relevant approved plan, by	
Activity	The Port Facility	The Ship
Ensuring the performance of all security duties		
Monitoring restricted areas to ensure that only authorized personnel have access		
Controlling access to the port facility		
Controlling access to the ship		
Monitoring of the port facility, including berthing areas and areas surrounding the ship		
Monitoring of the ship, including berthing areas and areas surrounding the ship		
Handling of cargo		
Delivery of ship's stores		
Handling unaccompanied baggage		
Controlling the belongings of passengers and their effects		
Ensuring that security communication is readily available between the ship and port facility		

CONTROLLED COPY

8. ISPS DECLARATION OF SECURITY

The signatories to this agreement certify that security measures and arrangements for both the port facility and the ship during the specified activities meet the provisions of SOLAS XI-2 and Part A of the ISPS Code and will be implemented in accordance with the provisions already stipulated in their approved plan or the specific arrangements agreed to and set out in the attached annex

Dated at ....., on the (place) .....

Signed for and on behalf of	
The Port Facility	The Ship
(Signature of Port Facility Security Officer)	(Signature of master or Ship Security Officer)

Name and title of person who signed	
Name:	Name:
Title:	Title:
Contact Details (To be completed as appropriate) (Indicate the telephone numbers or the radio channels or frequencies to be used)	
For the port facility	For the ship

The Port Facility	:	Captain	:
Port Facility Security Officer	:	Ship Security Officer	:
		Company	:
		Company Security Officer	:

CONTROLLED COPY

9. SAFETY DECLARATION

9. SAFETY DECLARATION

The Master:

Ship :

Dear Sir,

Responsibility for the safe conduct of operations whilst your ship is at this Terminal rests jointly with you as Master of the Ship, and with the responsible Terminal representative. We wish, therefore, before operations start, to seek your full cooperation and understanding on the safety requirements set out in the Ship/Shore Safety Check List which are based on safe practices widely accepted by the oil and tanker industries.

We expect you and all under your command to adhere strictly to these requirements throughout your stay alongside this Terminal and we, for our part, will ensure that our personnel do likewise and cooperate fully with you in the mutual interest of safe and efficient operations.

Before the start of operations, and from time to time thereafter, for our mutual safety, a member of the Terminal Staff, where appropriate together with a responsible officer, will make a routine inspection of your ship to ensure that the questions on the Ship/Shore Safety Checklist can be answered on the affirmative. Where corrective action is needed we will not agree to operations commencing, or should they have been started, we will require them to be stopped.

Similarly, if you consider safety is endangered by any action on the part of our staff or by any equipment under our control you should demand immediate cessation of operations.

THERE CAN BE NO COMPROMISE WITH SAFETY

Please acknowledge receipt of this letter by countersigning and returning the attached copy.

Terminal Representative on duty is :	Position or Title :
Telephone Number :	UHF/VHF Channel :
Signed (Terminal Operations Director) :	

Ship Representative on duty is :	Date :
Position or Title :	Time :
Signed (Master of Ship) :	SS/MV :

CONTROLLED COPY

10. SHIP/SHORE SAFETY CHECK LIST

SHIP/SHORE SAFETY CHECK LIST (ISGOTT Sixth Edition)

DATE AND TIME : …….

PORT AND BERTH : ALIAGA-IZMIR-TURKEY /EGE GAZ A.Ş. LNG TERMINAL

TANKER : ……

TERMINAL : ……

PRODUCT to be TRANSFERRED : ……

PART 1A Tanker: checks pre-arrival		**Status**	**REMARKS**
1	Pre-arrival information is exchanged	☐ Yes	
2	International shore fire connection is available	☐ Yes	
3	Transfer hoses are of suitable construction	☐ Yes	
4	Terminal information booklet reviewed	☐ Yes	
5	Pre-berthing information is exchanged	☐ Yes	
6	Pressure/vacuum valves and/or high velocity vents are operational	☐ Yes	
7	Fixed and portable oxygen analysers are operational	☐ Yes	

PART 1B Tanker: checks pre-arrival if using inert gas system		**Status**	**REMARKS**
8	Inert gas system pressure and oxygen recorders are operational	☐ Yes	
9	Inert gas system and associated equipment are operational	☐ Yes	
10	Cargo tank atmospheres' oxygen content is less than 8%	☐ Yes	
11	Cargo tank atmospheres are at positive pressure	☐ Yes	

CONTROLLED COPY

10. SHIP/SHORE SAFETY CHECK LIST

	PART 2 Terminal: checks pre-arrival	**Status**	**REMARKS**
12	Pre-arrival information is exchanged	☐Yes	
13	International shore fire connection is available	☐Yes	
14	Transfer equipment is of suitable construction	☐Yes	
15	Terminal information booklet transmitted to tanker	☐Yes	
16	Pre-berthing information is exchanged	☐Yes	

	PART 3 Tanker: checks after mooring	**Status**	**REMARKS**
17	Fendering is effective	☐Yes	
18	Mooring arrangement is effective	☐Yes	
19	Access to and from the tanker is safe	☐Yes	
20	Scuppers and savealls are plugged	☐Yes	
21	Cargo system sea connections and overboard discharges are secured	☐Yes	
22	Very high frequency and ultra-high frequency transceivers are set to low power mode	☐Yes	
23	External openings in superstructures are controlled	☐Yes	
24	Pumproom ventilation is effective	☐Yes	
25	Medium frequency/high frequency radio antennae are isolated	☐Yes	
26	Accommodation spaces are at positive pressure	☐Yes	
27	Fire control plans are readily available	☐Yes	

	PART 4 Terminal: checks after mooring	**Status**	**REMARKS**
28	Fendering is effective	☐Yes	
29	Tanker is moored according to the terminal mooring plan	☐Yes	
30	Access to and from the terminal is safe	☐Yes	
31	Spill containment and sumps are secure	☐Yes	

CONTROLLED COPY

10. SHIP/SHORE SAFETY CHECK LIST

PART 5A Tanker and terminal: pre-transfer conference		**TANKER Status**	**TERMINAL Status**	**REMARKS**
32	Tanker is ready to move at agreed notice period	☐Yes	☐Yes	
33	Effective tanker and terminal communications are established	☐Yes	☐Yes	
34	Transfer equipment is in safe condition (isolated, drained and de-pressurised)	☐Yes	☐Yes	
35	Operation supervision and watchkeeping is adequate	☐Yes	☐Yes	
36	There are sufficient personnel to deal with an emergency	☐Yes	☐Yes	
37	Smoking restrictions and designated smoking areas are established	☐Yes	☐Yes	
38	Naked light restrictions are established	☐Yes	☐Yes	
39	Control of electrical and electronic devices is agreed	☐Yes	☐Yes	
40	Means of emergency escape from both tanker and terminal are established	☐Yes	☐Yes	
41	Firefighting equipment is ready for use	☐Yes	☐Yes	
42	Oil spill clean-up material is available	☐Yes	☐Yes	
43	Manifolds are properly connected	☐Yes	☐Yes	
44	Sampling and gauging protocols are agreed	☐Yes	☐Yes	
45	Procedures for cargo, bunkers and ballast handling operations are agreed	☐Yes	☐Yes	
46	Cargo transfer management controls are agreed	☐Yes	☐Yes	
47	Cargo tank cleaning reguirements, including crude oil washing, are agreed	☐Yes	☐Yes	See also parts 7B/7C as applicable
48	Cargo tank gas freeing arrangements agreed	☐Yes	☐Yes	See also part 7C
49	Cargo and bunker slop handling requirements agreed	☐Yes	☐Yes	See also part 7C
50	Routine for regular checks on cargo transferred are agreed	☐Yes	☐Yes	

CONTROLLED COPY

10. SHIP/SHORE SAFETY CHECK LIST

51	Emergency signals and shutdown procedures are agreed	☐Yes	☐Yes	
52	Safety data sheets are available	☐Yes	☐Yes	
53	Hazardous properties of the products to be transferred are discussed	☐Yes	☐Yes	
54	Electrical insulation of the tanker/terminal interface is effective	☐Yes	☐Yes	
55	Tank venting system and closed operation procedures are agreed	☐Yes	☐Yes	
56	Vapour return line operational parameters are agreed	☐Yes		
57	Measures to avoid back-filling are agreed	☐Yes	☐Yes	
58	Status of unused cargo and bunker connections is satisfactory	☐Yes	☐Yes	
59	Portable very high frequency and ultra high frequency radios are intrinsically safe	☐Yes	☐Yes	
60	Procedures for receiving nitrogen from terminal to cargo tank are agreed	☐Yes	☐Yes	

PART 5C Tanker and terminal: liquefied gas. Checks pre-transfer		**TANKER Status**	**TERMINAL Status**	**REMARKS**
71	Inhibition certificate received (if required) from manufacturer	☐Yes		
72	Water spray system is operational	☐Yes	☐Yes	
73	Appropriate personal protective equipment is identified and available	☐Yes	☐Yes	
74	Remote control valves are operational	☐Yes	☐Yes	
75	Cargo pumps and compressors are operational	☐Yes	☐Yes	
76	Maximum working pressures are agreed between tanker and terminal	☐Yes	☐Yes	
77	Reliquefaction or boil-off control equipment is operational	☐Yes	☐Yes	
78	Gas detection equipment is appropriately set for the cargo	☐Yes	☐Yes	
79	Cargo system gauge operation and alarm set points are confirmed	☐Yes	☐Yes	

CONTROLLED COPY

10. SHIP/SHORE SAFETY CHECK LIST

80	Emergency shutdown systems are tested and operational	☐Yes	☐Yes	
81	Cargo handling rate and relationship with valve closure times and automatic shutdown systems is agreed	☐Yes	☐Yes	
82	Maximum/minimum temperatures/pressures of the cargo to be transferred are agreed	☐Yes	☐Yes	
83	Cargo tank relief valve settings are confirmed	☐Yes	☐Yes	

PART 6
Tanker and terminal: agreements pre-transfer

Part 5 Item	Agreement	Details	Tanker initials	Terminal initials
32	Tanker maneuvering readiness	Notice period (maximum) for full readiness to maneuver: Period of disablement (if permitted):		
33	Security protocols	Security Level: Local requirements:		
33	Effective tanker/terminal communications	Primary system: Backup system:		
35	Operational supervision and watch keeping	Tanker: Terminal:		
37 38	Dedicated smoking areas and naked lights restrictions	Tanker: Terminal:		
45	Maximum wind, current and sea/swell criteria or other environmental factors	Stop cargo transfer: Disconnect: Unberth:		

CONTROLLED COPY

10. SHIP/SHORE SAFETY CHECK LIST

45 46	Limits for cargo, bunkers and ballast handling	Maximum transfer rates: Topping-off rates: Maximum manifold pressure: Cargo temperature: Other limitations:		
45 46	Pressure surge control	Minimum number of cargo tanks open: Tank switching protocols: Minimum number of cargo tanks open: Tank switching protocols: Full load rate: Topping-off rate: Closing time of automatic valves:		
46	Cargo transfer management procedures	Action notice periods: Transfer stop protocols:		
50	Routine for regular checks on cargo transferred are agreed	Routine transferred quantity checks:		
51	Emergency signals	Tanker: Terminal:		
55	Tank venting system	Procedure:		
55	Closed operations	Requirements:		

CONTROLLED COPY

10. SHIP/SHORE SAFETY CHECK LIST

56	Vapour return line	Operational parameters: Maximum flow rate:		
60	Nitrogen supply from terminal	Procedures to receive: Maximum pressure: Flow rate:		
83	For gas tanker only: cargo tank relief valve settings	Tank 1: Tank 2: Tank 3: Tank 4: Tank 5: Tank 6: Tank 7: Tank 8: Tank 9: Tank 10:		
XX	Exceptions and additions	Special issues that both parties should be aware of:		

PART 7A General tanker: checks pre-transfer		**Status**	**REMARKS**
84	Portable drip trays are correctly positioned and empty	☐Yes	
85	Individual cargo tank inert gas supply valves are secured for cargo plan	☐Yes	
86	Inert gas system delivering inert gas with oxygen content not more than 5%	☐Yes	
87	Cargo tank high level alarms are operational	☐Yes	
88	All cargo, ballast and bunker tanks openings are secured	☐Yes	

CONTROLLED COPY

10. SHIP/SHORE SAFETY CHECK LIST

DECLARATION:
We the undersigned have checked the items in the applicable parts 1 to 7 as marked and signed below:

	Ship	Terminal
Part 1A. Tanker: checks pre-arrival	☐	☐
Part 1B. Tanker: checks pre-arrival if using an inert gas system	☐	☐
Part 2. Terminal: checks pre-arrival	☐	☐
Part 3. Tanker: checks after mooring	☐	☐
Part 4. Terminal: checks after mooring	☐	☐
Part 5A. Tanker and terminal: pre-transfer conference	☐	☐
Part 5C. Tanker and terminal: liquefied gas. Checks pre-transfer	☐	☐
Part 6. Tanker and terminal: agreements pre-transfer	☐	☐
Part 7A. General tanker: checks pre-transfer	☐	☐

In accordance with the guidance in chapter 25 of *ISGOTT*, we have satisfied ourselves that the entries we have made are correct to the best of our knowledge and that the tanker and terminal are in agreement to undertake the transfer operation.
We have also made arrangement to carry out repetitive checks noted in parts 9 and 10 of the *ISGOTT* SSSCL, which should occur at intervals of not more than…….hours for the tanker and not more than……..hours for the terminal.

If, to our knowledge, the status of any item changes, we will immediately inform the other party.

TANKER	**TERMINAL**
NAME: **RANK:** **SIGNATURE :**	**NAME:** **POSITION:** **SIGNATURE:**
DATE: **TIME:**	**DATE:** **TIME:**

CONTROLLED COPY

10. SHIP/SHORE SAFETY CHECK LIST

PART 8 Tanker: repetitive checks during and after transfer										
Item ref	**Check**	**Time**	**Time**	**Time**	**Time**	**Time**	**Time**	**Time**	**Time**	**Remarks**
Interval Time: ..... hrs										
8	Inert gas system pressure and oxygen recording operational	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	
9	Inert gas system and associated equipment are operational	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	
11	Cargo tank atmospheres are at positive pressure	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	
18	Mooring arrangement is effective	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	
19	Access to and from the tanker is safe	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	
20	Scuppers and savealls are plugged	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	
23	External openings in superstructures are controlled	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	
24	Pumproom ventilation is effective	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	
28	Tanker is ready to move at agreed notice period	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	
29	Fendering is effective	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	
33	Communications are effective	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	
35	Supervision and watchkeeping is adequate	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	
36	Sufficient personnel are available to deal with an emergency	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	
37	Smoking restrictions and designated smoking areas are complied with	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	

CONTROLLED COPY

10. SHIP/SHORE SAFETY CHECK LIST

38	Naked lights restrictions are complied with	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	
39	Control of electrical devices and equipment in hazardous zones is complied with	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	
40 41 42 51	Emergency response preparedness is satisfactory	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	
54	Electrical insulation of the tanker/terminal interface is effective	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	
55	Tank venting system and closed operation procedures are as agreed	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	
85	Individual cargo tank inert gas valves settings are as agreed	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	
86	Inert gas delivery maintained at not more than 5% oxygen	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	
87	Cargo tank high level alarms are operational	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	
Initials										

CONTROLLED COPY

EgeGaz

10. SHIP/SHORE SAFETY CHECK LIST

PART 9 Terminal: repetitive checks during and after transfer										
Item ref	**Check**	**Time**	**Time**	**Time**	**Time**	**Time**	**Time**	**Time**	**Time**	**Remarks**
Interval Time: ..... hrs										
18	Mooring arrangement is effective	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	
19	Access to and from the terminal is safe	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	
29	Fendering is effective	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	
32	Spill containment and sumps are secure	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	
33	Communications are effective	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	
35	Supervision and watchkeeping is adequate	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	
36	Sufficient personnel are available to deal with an emergency	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	
37	Smoking restrictions and designated smoking areas are complied with	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	
38	Naked lights restrictions are complied with	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	
39	Control of electrical devices and equipment in hazardous zones is complied with	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	
40 41 47 51	Emergency response preparedness is satisfactory	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	
54	Electrical insulation of the tanker/terminal interface is effective	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	
55	Tank venting system and closed operation procedures are as agreed	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	
Initials										

CONTROLLED COPY

11. CARGO HANDLING AGREEMENT

11. CARGO HANDLING AGREEMENT

VESSEL :				DATE :		
QUANTITY OF CARGO UNLOADED :				m3		
CONFIRM BOIL-OFF VAPOUR GENERATED TERMINAL WILL BE SENT BACK TO SHIP :						
SHIP'S CARGO LINES CONDITION : ☐ WARM ☐ COOLED-DOWN TO :				C		
SHIP'S TANKS CONDITION	TK No. 1	TK No.2	TK No.3	TK No.4	TK No.5	TK No.6
PRESSURE (mbar.a)						
CARGO TANK TEMPERATURE (°C) Top & Bottom Average (Membrane)						
Equator (Moss)						
LEVEL (mm)						
VOLUME (m^3)						
CONFIRM PYLE NATIONAL LINK E.S.D. IS OPERATIVE :						
CONFIRM PYLE NATIONAL LINK E.S.D WILL BE USED AS PRIMARY MEANS IN CASE OF EMERGENCY : ☐						
CLOSING RATE OF SHIP'S E.S.D VALVES:			CLOSING RATES OF SHORE E.S.D VALVES:			
STARTING TIME OF UNLOADING (EST) : DURATION OF UNLOADING (EST) :						
CONFIRM STOP UNLOADING ON : ☐ SHIP REQUEST ☐ TERMINAL REQUEST						
AGREED MANIFOLD PRESSURE DURING COOLDOWN : barg						
AGREED MAXIMUM SHIP TANKS PRESSURES FOR VAPOR RETURN : mbarg						
MAXIMUM VAPOR RETURN RATE FOR TERMINAL : SCM / HR						
MAX. UNLOADING RATE FOR TERMINAL : (CM/HR.)			MAX. UNLOADING RATE FOR SHIP : (CM/HR.)			
STARTING RATE REQUIRED CM/HR.)			STOPPING RATE REQUIRED (CM/HR.)			
CONFIRM ALL NECESSARY CARGO HANDLING PROCEDURES HAVE BEEN UNDERSTOOD :						
FOR SHIP			**FOR TERMINAL**			
Name			Name			
Position			Position			
Signature			Signature			
Time			Date			

CONTROLLED COPY