



# GUIDE FOR HAZARDOUS SUBSTANCES OF BOTAŞ LNG OPERATION DIRECTORATE

PREPARATION DATE: 29.02.2016

NIGAR AYGUN

## BOTAŞ LNG Deputy Business Manager

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## **REVISION PAGE**

Item	Revision No	Content Of Revision	<b>Revision Date</b>	The person who made the revision		
No				Name Surname	Signature	
1	0	Preparation of Hazardous	29.02.2016	Emel Yıldırım Enes		
		Substances Guide		Sak		
2	1	Facility Information Form Revision	12.01.2017	Emel Yıldırım		
3	2	Adding TMGD Information to the	03.01.2018	Emel Yıldırım		
	2	Facility Information Form				
4	3	Addition of TMGD information to	23.03.2018	Emel Yıldırım		
		the Facility Information Form				
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## 1. INTRODUCTION

1.1 The general information of the facility should include the minimum information stated in the information form provided below.

## **FACILITY INFORMATION FORM**

1	Facility operator's name / title	BOTAŞ/ Joint Stock Company				
	Facility operator's Contact information	Bilkent Plaza A-2 Blok Bilkent/ANKARA Phone 00 90 312 297				
2	(Address, Telephone, Fax, E-mail and web	2000 (Pbx)				
	page)	Fax 0090 312 266 0733 & 266 0734 http://www.botas.aov.tr				
3	Name of the facility	BOTAŞ LNG Directorate of Operations				
4	•	Tekirdağ				
5	Contact details of the facility (address,	details of the facility (address, BOTAŞ LNG Directorate of Operations Mailbox: 17 Marmara				
5	telephone, fax, e-mail and web page)	Ereğlisi/TEKİRDAĞ Phone: 0282 6115700 Fax: 0282 613 02 58				
	Geographical area where the facility is	5				
6	located	Marmara Region				
	Don't Authority and contact details of the	Tekirdağ Port Authority / Hürriyet, 59030 Tekirdağ				
7	Port Authority and contact details of the	Merkez/Tekirdağ, Phone: 0282 2612025,				
	Port Authority	Fax:0282 2629162				
	The municipality to which the facility is	Marmara Ereğlisi Belediyesi Cumhuriyet Cd. Cumhuriyet Meydanı				
8	affiliated and the contact details of the	eNo:1 Phone: (0282) 6131250 Fax: (0282)6131311 Marmara				
	municipality	Ereğlisi / TEKİRDAĞ				
	Name of Free Zone or Organized	1				
9	Industrial Zone to which the facility is	3-				
	affiliated					
	Period of validity of the work					
10	permit/temporary work permit certificate	:17.08.2017				
	of the coastal facility					
11	Activity status of the facility (X)	Own load and third Own load () Third person ()				
		additional person (X)				
	Name and surname of the person	Nigar AYGÜN, Deputy Business Manager.				
12	responsible for the facility, contact details	SPhone: 0282 6115700-5701, Fax: 0282 6130258,				
	(phone, fax, e-mail)	niaar.ayaun@botas .gov.tr				
		Murat KAYAKUZGUN, Deputy Process Manager				
13	person for dangerous goods operations.	Phone: 0282 6115700/5735, Fax: 0282 6130258,				
	contact details (telephone, fax, e-mail)	murat.kayakuzaun@botas .aov.tr				
		sTMGD Dangerous Goods Safety Advisor A.Ş.				
14	Goods Safety Advisor, contact details					
	(phone, fax, e-mail)	Phone: 0212 3513059-60				

		tankut@tmgddanismanlik.com
		Scaffold load line is at 40°59'30.46" North -27°59'00.57" East and
15	The sea coordinates of the facility	storage facilities, 40°59'36.73" North - 27°58'56.81" Eastern
		coordinates
	Types of dangerous goods handled at the	
	facility (MARPOL Annex-I, IMDG Code,	LNG, Liquefied Natural Gas, IMDG Code: UN 1972 Diesel Oil,
16	IBC Code, IGC Code, IMSBC Code,	IMDG Code: UN 1202
	Grain Code, TDC Loads covered by code	
	and asphalt/bitumen and scrap loads)	
	Types of the ships that may be able to	
17	dock to the facility	LNG Ships + Oil/Product Tanker
18	The distance from facility to main	500 m
	road(kilometer)  The distance from facility to railway	
19	(kilometers) or railway connection (Exists	
	/Not Exist)	
	The nearest airport's name and distance to	
20	the facility	Çorlu Airport, 16 km
		101 ships/ year
21	Cargo handling capacity of the facility	4.818.000 tons / year (gasification capacity) 27375 vehicle / year
	(Ton / Year, TEU / Year, Vehicle / Year)	(land tank filling)
22	Whether or not scrap handling has been	Not available
	carried out at the facility	
23	Is there a border gate? (Yes/No)	No
2.4	2 (7)	
24	Is there a customs area? (Yes/No)	Yes
25	Cargo handling equipment and capacities	Discharging arms: 10900 m3/h, LNG discharge capacity 550 ton/h
		gasification capacity, 75 tanker/day
26	Storage tank capacity (m3)	85000 m3 x 3 = 255000 m3
27	Open storage area (m2)	Not available
28	Semi-closed storage area (m2)	Not available
29	Closed storage area (m2)	Not available
30	Specified fumigation and / or fumigant	Not available
	decontamination area (m2)	
<u></u>		

Name/title of the provider of Pilot and				ndBOTA	BOTAŞ M.Ereğlisi Pilot and Tugboat Organization Tel: 0282 611				
Tugbo	at service	s and contact d	letails	57 00	57 00				
Has tl	he Securi	ty Plan been	establishe	ed?Port F	Port Facility Security Plan (LTGP) approved by the Ministry of				
(Yes/No)		Transp	Transportation, Maritime and Communications, prepared within the						
				scope o	cope of ISPS CODE, and port facility Protection and Security Plan				
				prepare	ed under	r the Law N	To. 5188	are available.	
				Waste	Waste Type			Capacity (m3)	
Capac	ity of V	Vaste Accepta	nce Facil	itySludge	Sludge Tank			10	
(this s	section w	ill be arrange	d separat	ely Bilge 7	Bilge Tank			15	
accord	ling to th	e wastes acce	pted by	the Marpo	1 Al	NNEX-V	(Ship		
facility)					ge)			8 containers with 0.8 m3 capacity	
				Waste	oil stora	ige area		200 m2	
The pr	operties o	of Pier / Wharf	and such	facilities					
Wharf	Boy	Width	Maximu	Minimum	water	The larges	st tonna	age and length of ships to dock	
	(meter)	(meter)	m water	depth (me	eter)	(DWT or	GRT - n	meter)	
			depth						
			(meter)						
	440	2	17	15	5 132000 DWT		OWT-	VT- 356 meter length- (Maximum	
					Displacement) 18		ent) 180	180000D/T	
ne of t	the pipelin	ne (If available			(mete	er) Length	L		
		`	Number						
			*		(mete	r)	Diamet	er (inch)	
Marmara Ereğlisi - Önerler between 1 piece main line			1 piece		23000		24		
LNG-002A - Between filling handle				1300 30		30			
and storage tank				1300					
LNG-002B - Between filling handle				1300 30		30			
and storage tank				1300		50			
LNG-002C - Between filling handle				1300		30			
age ta	nk		piece		1300				
	Tugbo Has the (Yes/N) Capace (this is accorded facility) The property Wharf  The property with the pro	Tugboat service Has the Securit (Yes/No)  Capacity of V (this section water according to the facility)  The properties of Wharf Boy (meter)  440  440  are of the pipelinacility)  are Ereğlisi - Örne (D2A - Between age tank)  D2B - Between age tank	Tugboat services and contact of Has the Security Plan been (Yes/No)  Capacity of Waste Accepta (this section will be arranged according to the wastes acceptated facility)  The properties of Pier / Wharf Wharf Boy (meter)  Wharf Boy (meter)  440 2  a Ereğlisi - Önerler between the pipeline (If available accility)  The properties of Pier / Wharf (meter)  Add 2  Between filling handle arge tank  D2B - Between filling handle arge tank  D2C - Between filling handle arge tank	Tugboat services and contact details  Has the Security Plan been established (Yes/No)  Capacity of Waste Acceptance Facility (this section will be arranged separate according to the wastes accepted by a facility)  The properties of Pier / Wharf and such Wharf Boy (meter) (meter) (meter) (meter) (meter)  440 2 17  The properties of Pier / Wharf and such (meter) (meter) (meter) (meter) (meter) (meter) (meter) (meter)  440 2 17  The properties of Pier / Wharf and such (meter)	Tugboat services and contact details  Has the Security Plan been established? Port F (Yes/No)  Transp scope of prepare  Waste Capacity of Waste Acceptance Facility Capacity of Waste Acceptance Facility Capacity of Waste Acceptance Facility Capacity of Waste Acceptance Facility Capacity of Waste Acceptance Facility Capacity of Waste Acceptance Facility Capacity of Waste Acceptance Facility Capacity of Waste Acceptance Facility Capacity of Waste Acceptance Facility Capacity of Waste Acceptance Facility Capacity of Waste Acceptance Facility Capacity of Waste Acceptance Facility Capacity of Waste Acceptance Facility Capacity of Waste Acceptance Facility Capacity of Waste Acceptance Facility Capacity of Waste Acceptance Facility Capacity Capacity of Waste Acceptance Facility Capacity Capacity of Waste Acceptance Facility Capacity Cap	Tugboat services and contact details  Has the Security Plan been established? Port Facility (Yes/No)  Transportation scope of ISPS prepared under Waste Type  Capacity of Waste Acceptance Facility (this section will be arranged separately)  Exactly Tank according to the wastes accepted by the facility)  The properties of Pier / Wharf and such facilities  Wharf Boy Width Maximu Minimum water depth (meter)  (meter) (meter) m water depth (meter)  440 2 17 15  The properties of Pier / Wharf and such facilities  Marpol Al Garbage)  Waste oil stora (meter)  1 piece 13000  1 piece 1300  1 piece 1300  1 piece 1300  1 piece 1300	Tugboat services and contact details  Has the Security Plan been established? Port Facility Sludge Tank Marpol ANNEX-V Garbage)  Waste Type  Marpol ANNEX-V Garbage)  Waste oil storage area  (DWT or depth (meter) (DWT	Tugboat services and contact details  Has the Security Plan been established? Port Facility Security Plan (LTG (Yes/No))  Transportation, Maritime and Co scope of ISPS CODE, and port far prepared under the Law No. 5188  Waste Type  Capacity of Waste Acceptance Facility  Capacity of Waste Acceptance Facility  Capacity of the wastes accepted by the facility)  Waste Type  Sludge Tank  Marpol ANNEX-V (Ship Garbage)  Waste oil storage area  The properties of Pier / Wharf and such facilities  Wharf Boy Width Maximu Minimum water The largest tonna depth (meter) (meter)  (meter) (meter) m water depth (meter) (DWT or GRT - radepth (meter))  440 2 17 15 132000 DWT-Displacement) 180  The properties of the pipeline (If available cility)  The properties of Pier / Wharf and such facilities  Wharf Boy Width Maximu Minimum water The largest tonna (meter) (DWT or GRT - radepth (meter))  I piece 13000 DWT-Displacement) 180  The properties of Pier / Wharf and such facilities  Wharf Boy Width Maximu Minimum water The largest tonna (meter) (DWT or GRT - radepth (meter))  I piece 13000 DWT-Displacement) 180  The properties of Pier / Wharf and such facilities  The properties of Pier / Wharf and such facilities  Wharf Boy Waste oil storage area  The properties of Pier / Wharf and such facilities  Wharf Boy Waste oil storage area  The properties of Pier / Wharf and such facilities  Wharf Boy Waste Oil ANNEX-V (Ship Garbage)  Waste oil storage area  The properties of Pier / Wharf and such facilities  Wharf Boy Waste Oil ANNEX-V (Ship Garbage)  Waste Oil ANNEX-V (Ship Garbage)  Waste Oil ANNEX-V (Ship Garbage)  The properties of Pier / Wharf and such facilities  Wharf Boy Waste Oil ANNEX-V (Ship Garbage)  The properties of Pier / Wharf and such facilities  Wharf Boy Waste Oil ANNEX-V (Ship Garbage)  Waste Oil ANNEX-V (Ship Garbage)  The properties of Pier / Wharf and such facilities  Wharf Boy Waste Oil ANNEX-V (Ship Garbage)  Waste Oil ANNEX-V (Ship Garbage)  Waste Oil ANNEX-V (Ship Garbage)  Waste Oil ANNEX-V (Ship Garbage)  Waste Oil	

## 1.2. The procedures for loading/evacuation, handling and storage of hazardous materials handled and temporarily stored at the coastal facility

According to the operation procedure of the Directorate of Process and Technical Safety, the handling and storage procedure of LNG, which is handled and temporarily stored at the facility, is as follows:

- First, the preparations for LNG discharge are started at the terminal by checking whether there is room for the ship in the storage tanks. Preparations for LNG evacuation are started.
- After the ship enters the manoeuvre area, the suitability of the dock is asked by the Harbour Pilot for docking. With the Maritime Affairs Directorate, it is agreed that the appropriate ship will dock within the framework of the program.
- After the ship docks, discharge letter (notice of ready to discharge) is signed by the Master and given to the Process Director.
- A copy of the Ship / Shore Safety Check List is filled in to ensure safe berthing of the ship and the LNG is to be discharged safely, and a copy will be presented to the Process Directorate. Discharge Officer and a copy will be presented to the master.
- Unloading Master arrives aboard the ship to perform volume measurement calculations of LNG stored in ship tanks.
- The tests of the emergency shutdown system (ESD 1) are carried out in coordination with the ship.
- LNG discharge starts in pre-determined tanks with cooling of connection arms (cool down).
- Ship pumps are activated and maximum discharge flow is achieved. The laboratory is informed and chromatographic analysis is started. Chromatographic analysis is terminated due to the drop of ship pumping towards the end of discharge.
- After the LNG discharge is completed, the removal of the arms is carried out within the framework of the ship discharge instructions. LNG is stored in designated storage tanks.
- Calculation of tank volume and LNG emptied to the terminal are carried out within the framework of the GIGNL 2002 Custody (last edition) Transfer Handbook and the information is transmitted to the Technical Office.
- The report prepared by the Technical Office is taken to the ship and a copy is delivered to the Master of the ship, the reports prepared by the ship Master are mutually reconciled and one copy is taken and stored.

## 2. RESPONSIBILITIES

All the parties involved in the transport of dangerous goods must take all necessary measures to make transportation safe and environmentally harmless, to prevent accidents and to minimize the damage in case of an accident.

All parties engaged in hazardous cargo handling are obliged to take all necessary measures to make transportation safe and environmentally harmless, to prevent accidents and to minimize Damage In case of accident.

#### 2.1. The responsibilities of the freight authority are as follows:

- All mandatory documents and information documents related to dangerous loads are prepared, and these documents are carried together during the transportation activity.
- Classification, identification and labelling of dangerous loads are realized in accordance with the legislation.
- Dangerous loads are safely loaded, transported and discharged to the cargo handling unit.
- Training of all relevant personnel on risks, safety precautions, safe working, emergency measures, safety and similar issues are provided and training records are kept.
- Safety precautions are taken for substances that are unsuitable, unsafe, or dangerous to people or the environment.
- In case of emergency or accident, necessary information and support are provided to the concerned.
- Dangerous cargo accidents in the area of responsibility are reported to the administration.
- The information and documents required for the checks carried out by the official authorities shall be submitted and the necessary cooperation shall be ensured.

#### 2.2. Responsibilities of the coastal facility operator are as follows:

- Suitable, sheltered, secure anchoring and connecting ships are provided.
- The entry-exit system between the ship and the shore is ensured to be suitable and safe.
- The persons involved in the loading, unloading and handling of dangerous loads are provided with training.
- Dangerous loads are carried, handled, temporarily suspended and controlled by the personnel who have taken the appropriate quality occupational safety precautions in the workplace.
- All mandatory documents and information related to dangerous loads are requested from those concerned with cargo and they are ensured to be present together with the cargo.
- Up-to-date list of all dangerous loads in the business area are kept.
- Training of all business personnel on risks of handled hazardous loads, safety measures, safe working, emergency measures, safety and similar issues is provided and training records are kept.
- The relevant documents are checked to confirm that dangerous loads entering the premises are properly defined, classified, certified, declared, loaded and transported safely to the freight forwarder.
- It is reported to the Port Authority by taking the necessary safety precautions for non-compliance with the rules, unsafe or dangerous substances which pose a risk to the people or the environment.
- Emergency arrangements are made and all persons concerned are informed about these issues.
- Dangerous cargo accidents occurring in the area of business liability are reported to the Port Presidency.
- Necessary support and cooperation is provided in the controls made by the authorities.
- Activities related to dangerous substances are carried out at docks, storages and warehouses established in accordance with these activities.
- For ships to perform LNG discharge, the Quay is equipped with appropriate facilities and equipment for this purpose.
- Vessels carrying Dangerous Goods shall not be able to dock without the permission of the Port Authority.
- For containers carrying dangerous goods, a suitable storage area will be allocated to the sorting and sorting rules and the fire, environment and other safety precautions required in this area will be taken. For the evacuation of dangerous goods from vessels and marine vessels and the evacuation of vessels necessary safety measures shall be taken against heat and other hazards, especially during hot seasons. Flammable materials must be kept away from spark-forming operations and tools or operations that generate sparks and no spark-generating vehicle or instrument can be operated at hazardous load handling area
- An emergency evacuation plan is prepared for evacuation of ships and sea vessels from coastal facilities in case of emergency.

### 2.3. The responsibilities of the ship's Master are as follows:

- 1. It is ensured that the equipment and devices of the ship are in compliance with the dangerous cargo transport.
- 2. All the mandatory documents and information related to dangerous loads are requested from the coastal facility and the person in charge of loads and the Master shall cause them to accompany the dangerous load.
- 3. To ensure the full implementation and continuity of the safety measures related to loading, handling, and unloading of dangerous loads on board and to carry out the necessary inspections and controls.
- 4. That dangerous cargo entering the ship is properly identified, classified, certified, marked, declared, approved and safely loaded and transported to the appropriate cargo handling unit is ensured.
- 5. It is ensured that all ship personnel are informed and trained on the risks of dangerous loads carried, loaded, unloaded, of safety measures, safe operation, emergency measures and similar matters.
- 6. It is ensured that the persons who have received appropriate qualified and necessary training in the loading, transportation, unloading and handling of dangerous loads work by taking occupational safety precautions.
- 7. Without the permission of the Harbour Presidency, the Master can not move out of the area allocated to him, anchor and berth.
- 8. All rules and measures shall be applied during the manoeuvring, anchoring, docking and departure of the ship to carry the dangerous cargo safely.

- 9. Safe entry-exit between the ship and the dock is provided.
- 10. Personnel shall be informed about the applications, safety procedures, emergency measures and intervention methods related to dangerous substances on board the ship.
- 11. He shall keep current lists of all dangerous loads on board and declared to interested persons.
- 12. He shall notify the Port Authority of the situation by taking the necessary safety precautions for dangerous substances which are not in compliance with the rules, unsafe, threatening to the ship, persons or the environment.
- 13. Dangerous cargo accidents on board shall be reported to the Port Authority.
- 14. He shall provide the necessary support and cooperation in the checks carried out on board by the authorities.

## 2.4. Responsibilities of the Dangerous Substances Advisor

Regulation on the Transport of Dangerous Substances by Sea facilities should assign Hazardous Material Safety Adviser according to the provisions of the 8th article of this regulation. Hazardous Material Safety Adviser's Duties and responsibilities are given below:

- To monitor compliance with the provisions of the International Convention on the transport of Dangerous Goods and the Convention (ADR/RID);
- To offer suggestions to the operator for the transportation of hazardous substances according to the provisions of ADR/RID;
- To prepare annual activity report on the transportation of dangerous goods in the first three months as of the end of the year and to submit it to the administration in electronic environment.
- To determine the requirements and conformity by determining the dangerous substances to be carried procedures in compliance with in the related article in the ADR;
- To guide the purchase of transport vehicles which the entity will use for the transportation of dangerous goods subject to operation;
- To determine the procedures for the control of equipment used for the transport, loading and unloading of hazardous substances:
- Regarding national and international legislation and changes in these, to provide and/or receive education for the purposes of this training and to maintain records of these trainings;
- To determine the emergency procedures to be applied in the event of an accident or an event which may affect safety during transportation, loading or unloading of dangerous substances, to have the employees perform the exercises on a regular basis and to keep records of these;
- To ensure that measures are taken to prevent re-occurrence of accidents or serious violations;
- To ensure that special requirements for the transport of dangerous substances in the selection and operation of subcontractors or third parties are taken into account;
- To ensure that employees involved in the transport, filling or discharging of hazardous substances have knowledge of operational procedures and instructions;
- To be prepared for possible risks in the transportation, loading or unloading of dangerous goods and to take measures to raise awareness of the personnel concerned;
- To prepare instructions for keeping documents and safety equipment in the vehicle during transportation according to the class of hazardous substances;
- To prepare the Operational Security Plan specified in section 1.10.3.2 of ADR/RID and to ensure the implementation of the plan;
- To record all kinds of activities including training, supervision and control, to keep these records for a period of 5 years and to present them to the Administration upon request.
- To keep records by specifying the date and time regarding the audited persons and businesses in the audits to be carried out in the enterprise.
- To stop the work done until the danger is eliminated in case of any danger, to start the work with his/her own approval in case the danger is eliminated and to operate any stage of the process until the danger is eliminated and to inform the competent authorities in writing.

• To determine the procedures related to packaging, labelling, marking and loading of the cargo loaded on the transport vehicles in accordance with the ADR/RID provisions.

## 2.5. The responsibilities of third parties, cargo / ship agency:

- The 4 day ship ETA is sent to the relevant LNG directorates by the agency of the incoming ship,.
- Delivery of ship ETA Information and loading reports by fax to the LNG Operation Directorate by the agency.
- Security information required by ISPS code (the information on the 10 ports, the incoming ship last visited, declaration of the ship, ship's personnel list, list of ration to be provided to ship, list of personnel to be aboard or to leave the vessel) is sent/transmitted by the ship agency.
- The temperature value of the LNG and the amount discharged are learned from the related person responsible for making the measurements for the calculation of the total energy.
- For Algeria and Nigeria LNG vessels, the average composition, LNG temperature and discharged quantities are entered into the current calculation program in the computer and output by density, upper heat value (GCV) and other calculations. If the ship is a Nigerian ship, the LNG supply representative and third party ship supervisor and if the ship is an Algeria ship, the documents are signed by both sides by checking the calculations with the ship's Master as representative. Mutually signed documents are given to the Master of the Algerian ship and to the LNG procurement representative.
- Once the discharge is over, the vessel is cleared by the vessel of the discharge arms, and then the ship's port and vessel are separated from the vessel by agreement with the ship's agent and Master on the departure time.
- After the vessel leaves the port, the Tugboat Masters prepare Working Reports (BOT-FRM-LDN-001-004). The Harbour Pilots prepare the Garbage Service Bill and Service Bill and submit them to e Maritime Affairs Department.

#### 3. THE RULES AND MEASURES TO BE APPLIED / TAKEN BY THE COASTAL FACILITY

Operators of coastal facilities having the Dangerous Goods Conformity Certificate shall take the following precautions:

oastal operators shall ensure that if the dangerous goods are not stored in the area evacuated from the port or quay, they shall be transported outside the coastal premises as soon as possible without being kept in the port area.

- Dangerous goods shall be packed properly and provided with information identifying the dangerous substance on the package and information on risk and safety measures.
- Coastal facility personnel, seafarers and other cargo officers engaged in the handling of dangerous goods shall wear protective clothing in accordance with the physical and chemical properties of the load during loading, unloading and storage of.
- Persons fighting fire at the handling of dangerous goods shall be equipped with firefighter equipment and fire extinguishers and first aid units and equipment shall be ready for use at any time.
- Coastal operators shall prepare an emergency evacuation plan for the evacuation of ships and marine vessels in coastal facilities in case of emergency and submit them to the Port Authority for approval.
- Coastal operators are obliged to take fire, safety and security measures.

### **General Safety Rules at the Facility:**

- The security personnel must be registered at the terminal entrance door and the visitor badges must be worn.
- Within the terminal limits, the maximum speed is 30 km/h.
- Smoking is strictly prohibited except for sections devoted to smoking.
- The visitor who enters the process and filling station must deliver the mobile phone and the spark-generating materials such as cameras to the security personnel.
- Except for the officers, it is forbidden to enter the terminal site with a gun.

C

- Pedestrians should use walking paths within the terminal, entrances and exits to the process site must be made from turnstiles.
- At the Terminal, it is forbidden to do business without obtaining a work permit from the Hazardous Area Manager and the Occupational Safety Expert.
- In all kinds of works within the terminal boundaries, protective equipment and materials must be used according to the type of work.
- In case of emergency, you should definitely go to the nearest emergency meeting point. (There are drawings of emergency meeting points on the collar cards given at the terminal entrance.)
- Vehicles must be parked in front of the car in the direction of exit. The ignition key should be left on the vehicle and the brake should not be pulled.
- The work should not be started without taking the necessary precautions at the place of work within the scope of the hot work without gas control. If there is any danger, the work should be stopped immediately and the relevant persons should be notified.
- It is dangerous and forbidden to enter areas and roads where barrier or safety lane is drawn.
- When an accident occurs in the terminal, the vehicle should not be moved and the accident report should be prepared by informing the concerned.
- The use of cameras, videos, electrical and electronic devices in the terminal is subject to the permission of the Directorate.
- It is strictly forbidden to bring alcohol and drugs to the terminal or to come under the influence of these substances.
- All terminal personnel are responsible for complying with the rules:
  - Coastal facility operators shall have the issues specified in this article approved by the Port Authority and notify those concerned.
  - In accordance with the International Code on Dangerous Loads Carried by Sea, published in the Official Gazette numbered 29601, dated 22/01/2016, the personnel not having the required training and authorization are not permitted to operate with hazardous cargo handling operations and not to enter the areas where these operations are performed.

## 4. CLASSIFICATION, TRANSPORT, HANDLING, SEPARATION, STACKING AND STORAGE OF HAZARDOUS SUBSTANCES

The following sections describe the classification, transport, handling, separation, stacking and storage of dangerous substances in detail:

### 4.1. Classes of dangerous substances

NAME OF THE PRODUCT	UN CODE	CLASS	
LNG	UN 1972	2	
DIESEL	UN 1202	3	

## 4.2. Packages and packaging of dangerous substances

Packaging transactions are not carried out to dangerous substances in our facility.

## 4.3. Placards plates, markers and labels for dangerous substances









Flammable Gases

Dangerous for the environment









Flammable Liquid

**Dangerous for the environment** 

## 4.4. Signs and packaging of dangerous substances

Dangerous substances stored in the facility are not packaged because of their being stored in large capacity tanks. Therefore, no danger signs are placed. Hazard symbol is used for the transport of dangerous goods by land.

NAME OF THE PRODUCT	CODE	CLASS I		PACKAGING GROUP
LNG	UN 1972	2		-
DIESEL	UN 1202	3	3 3	-

## 4.5. Separation tables on board and port according to classes of hazardous substances

There is no separation plate for ships arriving in which only LNG is located and not carried with other dangerous substances.

## 4.6 separation distances and separation terms of hazardous loads in warehouse storage

LNG is stored in 3 tanks of 85,000 m3.

#### 4.7. Dangerous cargo documents

Ship waste transfer form, written instructions, SRC 5 certificate for tanker drivers

#### 5. HANDBOOK ON DANGEROUS CARGO HANDLING AT THE COASTAL FACILITY

Coastal facilities engaged in hazardous cargo handling and temporary storage activities are required to contribute to the fulfillment of such activities in a safe manner; Classification of dangerous goods, packaging of dangerous goods, packaging, labels, signs and packing groups, shipboard and port sorting tables according to the class of dangerous goods, separation distances of dangerous goods in warehouse stores, separation terms, dangerous goods documents, dangerous goods, emergency response action flow diagram, a Hazardous Material Handbook was prepared and attached.

#### 6. OPERATIONAL CONSIDERATIONS

## 6.1. The procedures for safely handling, connecting, loading/unloading, housing or anchoring of vessels carrying hazardous substances during the day and night

- The Guard Harbour Pilot is appointed according to the ship's schedule.
- The Harbour Pilot performs the necessary preparations and the following final checks, and if the answers to the questions below are positive, the related procedures are started.
  - Is there a Docking Ordinance of the ship obtained from the Port Presidency?
  - Is there a Commitment or Payment Certificate obtained from the Agent?
  - Is there a docking instruction obtained from the Directorate of Operations and / or other service providers?
  - Does the ship agree to dock and has the Master presented the Preparatory Letter?
  - Is the pier to be docked ready?
  - What is ISPS Security Level?
  - Are the weather and sea conditions suitable?
  - Instruction to prepare the Pilot Boat to take the Harbour Pilot to the ship and the Marine Vehicles to be used for manoeuvre be prepared is given.
  - Harbour Pilot goes aboard. He learns the necessary information about the ship by reaching consensus on the docking manoeuvre with the ship's Master.
  - Calls for sea vehicles and land hawsers to the task required for docking.
  - Harbour Pilot supervises the Ship Master in the berthing of the ship.
  - Ensures safe berthing and tied.
  - After the completion of the manoeuvre, the task of sea vehicles and land hawsers end.
  - The ship's loading or unloading preparations are checked within the scope of Ship / Shore Safety Check List.
  - As long as the ship is on the pier, the changes in the weather conditions should be examined carefully and, if deemed necessary,
    - 1. The loading and unloading operations can be interrupted.
    - 2. Arms/Handles can be removed.
    - 3. The trailers are requested to be present.
    - 4. The ship can be removed from the pier.
  - Tugs and hawsers to be used for the separation of the ship are called to the task.
  - The Master of the ship is supervised in the separation of the ship from the pier.
  - After the ship ropes are dissolved, the duty of the land hawsers ends.
  - After the ship leaves the dock and reaches safe distance, the duty of the tugboats end.
  - After departure;
    - Harbour Pilot departs from the piers and buoys of the other service providers and returns to the port via Pilot Boat.
    - After the LNG ship's departure manoeuvre, Harbour Pilot continues the Marmara voyage with the LNG ship, as a recommender until the Dardanelles Gallipoli Guidance Station.
  - The documents belonging to the ship are delivered to the Maritime Affairs Directorate.

## 6.2. The procedures for additional measures to be taken in accordance with the seasonal conditions for loading, evacuation and limbo operations of dangerous substances.

In cold weather in winter, it is more likely to freeze in night shifts and the following precautions should be taken according to weather conditions:

- Cooling tower drains can be opened slightly.
- The 110 JB air compressor will run every shift for half an hour (110 JA in mechanical maintenance). If the 110 JC is not engaged, the compressor outlet air tank will be on as the drains will normally remain open for some time. In the case of faults in the desiccants, immediately the maintenance group will be informed and the faults will be removed and the desiccants will be provided with normal operation.
- Run 114-115-116-121 122J water pumps every 4 hours.
- 105 JA / B and 106 JA / B and 107 J natural gas compressors, water and oil pumps and heaters must be in operation at all times. Clean filters if they are contaminated. Each shift shall change oil and water pumps.
- One of the well water pumps must be in circulation. If the well water pumps can not be replaced, open some of the Bunker C tank water inlet drains.
- Hot water chlorination should be on every cycle, if not available, drain chlorine tank.
- Keep the SMV's water pumps on.
- open the drains behind the Service Lines (between the tank, metering, about 107 J and 106JB, the HP (E), open the drains of the service lines in front of the tank for tank gas analysis, the filter drains are also opened at potable and open the drains of the service water lines and potable water lines in the jetty head.
- If necessary, open the vents slightly in cold weather so that the water pressure lines and flow indicators do not freeze in cold weather.
- Open some hydrant valves such as metering on fire hydrant valves in process area, opposite to flare, some of the hydrant valves between tank and ORV, ramp, hot water pool, upper stairs as well as some of the hydrothermal valves on the road before coming to the water pump, administrative buildings, sea water pump, as well as jetty heads. If the foam truck water heater fails, drain the foam truck water tank.
- Gas chromatographic analysis of jetty head water bath heaters should also be activated. The water temperature will be 60 ° C (see also during pre-ship checks).
- If water is given to the ship, drain the vessel potable line after the ship.
- Open the water drain in the arm care area or where the toilet is located.
- Open the water line drain of the nitrogen filling building.
- The osmosis system heater will be in operation.
- In arm maintenance area (the line used to wash emergency barrier) drain will be enabled.
- The water line will be drained by opening some amount in nitrogen tube filling building
- The valve next to the garden irrigation line valve PW will be closed and opened from the lodging area.
- The fire line will be closed from the hydrant in front of the automation building and the water in the lodging area will be completely discharged.
- Heating system in osmosis drinking water building will be commissioned.
- By notifying administrative works, the garden irrigation line will be closed from potable water and the area to the administrative building will be drained completely.
- Sea water pumps seal water inlet will open the top platform service line drain.
- 113 pump pit line drain valve will be opened slightly.
- The foam around 101 ZA /ZB foam pools will be closed in water block valves (GAV). Before this process, the main water line valve next to foam tanks will be closed and the water between the lines will be expected to be drained with its own charm.

- ORV sea water lines should be renewed if the insulation of annubars has deformed.
- Activate all heat-tracing processes, including the ramp foam system.

6.3. The procedures for keeping flammable, combustible and explosive materials away from sparks and not to run tools, or materials that generate sparks in hazardous load handling, stacking and storage areas.

#### The Measures to be Taken against Explosions

In the event of intentional or unintentionally occurring flammable gases, vapours, mist or combustible powders which may cause explosion hazard, other appropriate measures shall be taken to ensure that they are properly directed or removed to a safe place and, if this is not practical, to prevent them from spreading.

If explosive atmospheres consist of several types of flammable gases, vapours, mist or dust, the protective measures to be taken should be appropriate to the highest risk.

In particular, static electrical discharges shall be taken into account in the prevention of ignition hazards in cases where workers and the working environment may be a static electrical carrier or producer. Personal protective equipment should be worn to prevent the formation of static electricity, which can ignite explosive atmospheres.

Facilities, equipment, protective systems and related devices can be safely used in explosive atmospheres, if they are indicated in the explosion protection document. This rule applies to equipment and fittings which are not considered to be equipment or protective systems for equipment and protective systems used in explosive atmospheres, but which, at the installation site, are themselves at risk of ignition. The necessary precautions must be taken to avoid any confusion in the connectors.

In order to minimize the risk of explosion and to control the explosion, to minimize the spread of the explosion to workplaces and work equipment, all necessary measures must be taken to design, build, assemble, and maintain workplaces, work equipment, and all associated equipment in order to minimize the risk of explosion and to minimize the spread of the explosion to workplaces and Appropriate measures should be taken to minimize the risk of employees being exposed to the physical effects of explosion at workplaces.

- Where necessary, before the explosion conditions occur, there must be a system to ensure that
  employees are warned with voice and/or visual signs and evacuate from the environment in a short
  time.
- If it is deemed necessary in the explosion protection document; in case of a hazard, evacuation system is installed so that employees can move away from the dangerous zone immediately and safely.
- Workplaces with potentially explosive atmospheres must prove that all workplaces are safe from explosion before commencing operation. All conditions must be met to ensure protection from explosion.
- Proving that safety is ensured in terms of explosion, the related explosion protection transactions are done by trained and experienced experts.
- In cases where any power failure may result in additional risks, safety equipment and safety systems must be ensured to operate safely and independently from other parts of the facility.
- In case of any deviation from the operating conditions intended for automatic processes, manual intervention should be carried out on condition that the safety of the equipment and protective systems connected with the automatic system is not compromised. Only authorized employees should do this.
- In case of emergency stop of the system, the accumulated energy should be evacuated as quickly and safely as possible or isolated so as to avoid danger.

#### The Criteria to be Complied in the Selection of Equipment and Protective Systems

In the event that in explosion protection document prepared according to the risk assessment otherwise is not stated, equipment and protective systems in all places where explosive atmospheres may occur shall be selected according to the categories specified in the Regulation on equipment and protective systems used in probable explosive atmospheres. For gases, vapours mist and dust, equipment in the category given below is used.

Region 0 or region 20 : Category 1 equipment,

Region 1 or region 21 : Category 1 or 2 equipment, Region 2 or region 22 : Category 1, 2 or 3 equipment,

The categories of dangerous zones and equipment and protective equipment to be used in these zones are stated in the "Regulation on Equipment and Protective Systems to Be Used in Potentially Explosive Atmospheres".

#### Warning Signs for Places Where Explosive Conditions May Occur

The distinguishing characteristics of the warning sign are as follows:

- Triangular shaped,
- Land text on black edges and yellow background,
- The yellow floor will be at least 50% of the landmark area.

#### 6.4. The procedures for fumigation, gas measurement and purification of gas

No hazardous substances including fumigation are handled within the facility. LNG storage is carried out and work is done within the scope of job permits procedure for gas measurement and gas purification.

## 7. DOCUMENTATION, CONTROL AND REGISTRATION

7.1. The procedures for the identification and control of all compulsory documents and information concerning dangerous goods and the procedures for obtaining and controlling such documents and information by the respective parties.

In the Protocol made with the LNG ship personnel before and after the handling of hazardous substances at the coastal facility, the documents of the cargo which are exchanged and given are as follows:

- Mate's receipt (is provided from Port Presidency).
- Preparation Letter (NOR) (prepared by ship and agency)
- Ship / Coast Guard checklist (ISPS Codes)

## For loads

- Load Report
- Safety Check List (approved mutually by the unloading master and ship Master)
- Time Sheet
- Analysis Report
- Transfer Form for Wastes
- Letters of Protest (if available)
- Cargo Manifest (if available)

## 7.2. The procedures for keeping up-to-date list of all hazardous substances in the coastal facility area and other relevant information regularly and thoroughly.

While discharge from LNG ship from our terminal is carried out, the samples are taken and analyzed with the help of chromatography, the necessary calculations are carried out and the documents are recorded.

After gasification of LNG found in tanks, analysis is performed and even analyzed with the help of the chromatography found in metering and even shipped. The measurements made here are recorded on a daily basis (based on 08:00) in the EBT system. At the same time, records are kept in business computers.

LNG quantities loaded from the storage tanks to the land tankers are recorded and monthly reports are prepared after the necessary calculations are made.

The measurements recorded, ship discharge, quantities shipped to the industry are prepared and recorded as monthly, 1<sup>st</sup>. six months 2<sup>nd</sup>. six months and as annual reports. This way, such information as ship discharge information from the terminal, even daily shipping values, land tanker, daily tank levels, etc. many information is being recorded.

7.3. The procedures for the identification of dangerous goods which are declared in accordance with the dangerous goods, the reporting of the use, certification, packaging, labelling and declaration of dangerous goods by the correct shipping names, checking and transporting of the goods in a safe and proper packaging, container or freight transporting unit and reporting procedures of control results.

LNG's MSDS and analysis reports are available from our Terminal. In addition, samples are taken and analyzed before discharge from ship tanks. According to the results, the quality of the declared product is approved.

In order to prevent the spread of LNG or natural gas to the environment as a result of an accident and to prevent the danger, the construction, operation and testing of LNG facilities have been carried out by considering the highest safety factors and taking advantage of the double safety systems that control each other.

During the transfer of the liquid gas to the terminal, the leakage which may be caused by the discharge arms can be detected by means of spill detectors and the PERC (Pressure Emergency Release Couplin) valves located on the transfer arms can be deactivated by isolating the system in less than 30 sec.

There is a system that will completely or partially disable the terminal against dangerous situations such as leakage, fire etc. that may occur anywhere in the plant.

Although the probability of leakage, leaks, fire, etc., is very low at LNG plants, the following warning systems are used to prevent such situations.

- 1. Spill and flame detectors
- 2. Low temperature detectors
- 3. Combustible gas detectors

## 7.4. The procedures for the provision and keeping of hazardous Material Safety Data Sheet (MSDS)

- Safety information for the use and storage of hazardous materials is requested from the relevant supplier during the purchase of the material. Material Safety Data Sheet is not taken from the relevant company.
- Material Safety Data Sheet for the material being purchased is sent to ISG units.
- Material Safety Data Sheet is reviewed. In the event that the information in the form is not sufficient, necessary investigations are carried out on hazardous material/s. Incomplete information is sent to the relevant company for processing by the machine supply units and a copy of the form is kept.
- The necessary training is provided by the related company according to Material Safety Data Sheets and Hazardous Material Use and Work Safety Instructions on safety information, use, storage methods and conditions of dangerous materials to be used in work. It is ensured that these requirements are included in the specification. Training is conducted in accordance with the Procedure.
- Safety and usage information in the forms related to dangerous materials to be used in work are transferred to the relevant personnel with the information on the work before the start of the work.
- Use and storage of materials is ensured in accordance with the Safety Data Sheet.
- In the work carried out in hazardous areas and other facilities within the company, Material Safety Data Sheets and the Performance Measurement and Monitoring Procedure are checked in accordance with the requirements mentioned in the Dangerous Material Handling and Work Safety Instructions.

## 7.5. The procedures for keeping records and statistics of dangerous loads.

The LNG information uploaded to our terminal is recorded both in the EBT system and in the computer environment of the company. The system has been keeping records for all ships since 1994 and the required information is reached.

Registration documents at the terminal can be listed as follows:

- LNG Management Directorate's 'Board Book' (Recondenser, compressors, natural gas gasification units, storage tanks, High Pressure Pumps, sea water gasification units, metering).
- Shift Superintendent's Book
- Shipment dispatch and Weighbridge receipt
- Ship calculation program results (Algeria, Nigeria)
- Daily Calculation Program

### 8. EMERGENCY SITUATIONS, PREPARATION AND RESPONDING TO EMERGENCY SITUATIONS

#### 8.1. The Precautions Related to Emergency Interventions

The aim of the Emergency procedure, Emergency Action Plan and coastal emergency response plan is to identify potential emergency situations that will affect all facilities within our company, to plan the actions to be taken in case of emergency, to prevent and mitigate the adverse consequences of Emergency Situations and to prevent or reduce the loss of life and property by determining the procedures and plans in this regard and this plan is attached. The first intervention arrangements for accidents involving dangerous substances are included in the documents related to the emergencies mentioned above, but the first aid and reporting of accidents are given in the Annex with the reporting procedure of accidents and occupational diseases, and the investigation and analysis of occupational accidents and occupational diseases identified in our company, and the registration of them. It is aimed to determine the deficiencies and other factors that cause ISG and to determine the need for corrective and preventive action and the opportunities for improvement in order to prevent recurrence of similar situations and to publish the results of the research.

The notifications that need to be made in emergency situations, reporting procedures, emergency evacuation plans, emergency drills, are described in detail Emergency Situation Plans.

#### 8.2 Information on Fire Protection Systems

The fire protection systems in our facility consist mainly of the following structures:

• KKT& CO2 TUBES • KKT AND FOAM&WATER VEHICLES • COOLING ( DELUGE) SYSTEMS • LNG COLLECTION POOLS ( FOAM POOLS ) • KKT SYSTEMS IN TANK's PSVS • CHEMICAL EXTINGUISHING SYSTEMS • TRAINING AND DRILLS

The operating procedures of the systems that provide the water needed during fire protection can be summarized as follows:

- 1. When a major fire and related incident occurs at the terminal, large amounts of water will be needed to protect equipment likely to be affected by fire and fire from thermal radiation. This is about 4500 m3/hr. For this purpose, 2 113 JA/B fire diesel pumps and 1 113 JC Electric fire pump are available with capacity of 2250 m3/hour.
- 2. 113JC electric pump is connected to 42" sea water common outlet line with 24" line from pump outlet and can be used to supply both sea water line and fire lines for double purposes. This 24" line has PV252 control valve set to both 6.0 barg. When feeding the sea water line to 113JC, if there is a PALL 35 alarm on the fire line (alarm at 6 bar) PV252 control valve and MOV25 are closed and directly feed 113JC fire line.
- 3. While there is no fire, the fire water line 114 JA/B is pressurized by fresh water at 10 bar by working one of the fire jockey pumps and holding the other in stand-by.

#### **Control Room Fire Panel**

Control room fire panel includes switches that enable automatic or manual commissioning of fire pumps by the operator.

Activating sequence of fire pumps by pressing the general Start button on the fire control panel or by pressing the fire line pressure low alarm (6.0 barg), 113JC, 113JB and 113 JA pumps are activated (second 114 J fire fresh water jockey pump is activated when PAL P33 (set at 8 bar). If 113JC is not activated or if the PALL35 alarm is not activated within 8 seconds even though it is activated, 113JB fire diesel pump is activated. If there is an electrical failure, 113JC EDA alarm, 113 JB will activate directly without waiting for 8 seconds. If the PALL35 Alarm fails within 15 seconds, the 113 JA fire diesel pump will also be activated. If there is an EDA Alarm in 113 JB or 113JA, it will not be taken into account in 15

seconds. When the general Stop button on the fire control panel is pressed, 113 JA, 113JB and 113 JC will be disabled, respectively, as opposed to the start sequence. Pumps will not stop when the PALL35 alarm is present.

#### 9. OCCUPATIONAL HEALTH AND SAFETY

#### 9.1. Occupational Health and Safety Measures

All health and safety measures must be taken in accordance with the occupational health and safety Law No.6331. In this context, risk assessments have been made and the studies are conducted in a safe and secure manner. Occupational Safety experts, workplace physicians and other health personnel are in charge of our operation. Occupational Health and Safety Council meets regularly once a month, and in extraordinary circumstances more than one. Trainings are organized monthly in our business and they are related to risk assessments, informing about the related laws, safety and health during work, methods to increase occupational health and safety awareness such as work accident prevention methods.

All work done in the workplace is subject to work permit and supported by the relevant procedures. Work permits procedure preliminary inspections are carried out in order to prevent incidents and accidents that may occur during the work to be carried out by employees and subcontractor (supplier) personnel within the scope of BOTAŞ LNG Operation Directorate and after the necessary precautions are taken, and to ensure that the workplace and its employees are kept away from possible hazards by ensuring that the work performed is controlled at certain intervals.

#### 9.2 Information on Personal Protective Clothing and the Procedures in Relation to Their Use

Personal protective equipment is required to be used during work. The features of these PPE, locations, use, etc are explained by procedures and guidelines. The Personal Protective Equipment Procedure is intended to protect occupational health and safety of all employees, including subcontractors, supplier personnel, trainees and other visitors, within our organization, from hazards arising from activities, facilities, materials, equipment and such elements that may affect the physical and mental health .LNG, handled at the facilities, is a chemical that is colorless, odorless, flame-free and liquid at about -162 degrees centigrade, transported and/or/stored by/at isolated tanks and pipes. LNG is quickly gasified as soon as it comes in contact with air. Therefore, those working on LNG lines use special cold-resistant work gloves. When it becomes gas, it is in the air at a certain rate, and when it contacts with a fire source it burns. In order for the personnel working in hazardous areas to be able to get away from the dangerous environment in a healthy way, they must wear flame-resistant work clothes.

## 10. OTHER CONSIDERATIONS

### 10.1 Validity of Hazardous Substance Compliance Certificate

#### 10.2 The Tasks Defined for Hazardous Substances Safety Advisor

The duties and obligations for the TMGD are stated in Article 23 in the Communiqué on Hazardous Substances Safety Advisor published in the Official Gazette No. 29007 dated 22.05.2014.

#### The Duties and Responsibilities of Hazardous Substances Safety Advisor

- **ARTICLE 23 -** (1) The principal duty of the Advisor is to facilitate the management of the related activities in the most secure way by determining and using the most appropriate tools and activities under the responsibility of the person in charge of the enterprise within the scope of the requirements of the work done.
- (2) Given the activities within the enterprise, a consultant conducts the following principal duties:
  - a) To monitor compliance with the provisions of the International Convention on the transport of Dangerous Goods and the Convention (ADR/RID);
  - b) To offer suggestions to the operator for the transportation of hazardous substances according to the provisions of ADR/RID;
  - c) To prepare annual activity report on the transportation of dangerous goods in the first three months as of the end of the year and to submit it to the administration in electronic environment. The annual report in question includes the following issues as minimally:

- 1) Classification and characteristics of dangerous substances;
- 2) Total quantities according to classes of hazardous substances;
- 3) Reports on accidents occurred in the workplace according to ADR/RID, section 1.8.3.6;
- 4) Which type of transport the dangerous substances are carried by;
- 5) If any load is carried within the scope of the exemption foreseen in ADR, and if it is carried, the amount and class;
- 6) Additional security assessment required by the security advisor for the enterprise;
- ç) To determine the requirements and conformity by determining the dangerous substances to be carried procedures in compliance with in the related article in the ADR;
- d) To guide the purchase of transport vehicles which the entity will use for the transportation of dangerous goods subject to operation;
- e) To determine the procedures for the control of equipment used for the transport, loading and unloading of hazardous substances;
- f) Regarding national and international legislation and changes in these, to provide and/or receive education for the purposes of this training and to maintain records of these trainings;
- g) To determine the emergency procedures to be applied in the event of an accident or an event which may affect safety during transportation, loading or unloading of dangerous substances, to have the employees perform the exercises on a regular basis and to keep records of these;
- ğ) To ensure that measures are taken to prevent re-occurrence of accidents or serious violations;
- h) To ensure that special requirements for the transport of dangerous substances in the selection and operation of subcontractors or third parties are taken into account;
- (1) To ensure that employees involved in the transport, filling or discharging of hazardous substances have knowledge of operational procedures and instructions;
- i) To be prepared for possible risks in the transportation, loading or unloading of dangerous goods and to take measures to raise awareness of the personnel concerned;
- j) To prepare instructions for keeping documents and safety equipment in the vehicle during transportation according to the class of hazardous substances;
- k) To prepare the Operational Security Plan specified in section 1.10.3.2 of ADR/RID and to ensure the implementation of the plan;
- 1) To record all kinds of activities including training, supervision and control, to keep these records for a period of 5 years and to present them to the Administration upon request.
- m) To keep records by specifying the date and time regarding the audited persons and businesses in the audits to be carried out in the enterprise.
- n) To stop the work done until the danger is eliminated in case of any danger, to start the work with his/her own approval in case the danger is eliminated and to operate any stage of the process until the danger is eliminated and to inform the competent authorities in writing.
- o) To determine the procedures related to packaging, labelling, marking and loading of the cargo loaded on the transport vehicles in accordance with the ADR/RID provisions.
- (3) The TMGD collects information about the accident and reports an accident to the management in case an accident occurs during transportation, loading or unloading in the enterprise for which TMGD is responsible. This report does not replace the report that should be written by the Business Administration as per international or national legislation.
- (4) TMGD's are required to receive a renewal training every 2 years for changes to the ADR/RID.
- (5) A TMGD can advise up to 5 enterprises.
- 10.3. The issues for those who carry dangerous substances to the coastal facility (the documents which must be kept at entry/exit into/from the port or the coastal facility area of the road vehicles carrying dangerous substances, the equipment that these vehicles must have; speed limits at the port site, etc.)

#### **The Documents Requested in Terms of Security**

• The latest list of the land tankers and drivers who are currently in our BOTAŞ LNG Management Department for LNG filling, together with the information and documents mentioned below, will be prepared in a file without delay and sent to our Management Directorate by the annexing such documents to the cover letter. In addition, companies will update the list of personnel every three (3) months and send it to our Directorate.

- Before the company personnel who have just started to work as tanker driver comes to our facilities for filling, the following documents will be prepared and sent to our Directorate. The new drivers whose documents are not sent to our Directorate will not be taken to the Facilities for filling.
- The Land tankers and their drivers, with which/whom the related company doesn't work any longer (the drivers the labor contracts of whom are cancelled), will be notified in writing to our Directorate.
  - Photocopy of driver's license belonging to tanker drivers for once.
  - Photocopy of identity card belonging to tanker drivers for once.
  - "General information form" to be filled by tanker drivers with their own handwriting.
  - The certificate taken from the Prosecutor's office belonging to tanker drivers specifying that 'There is no criminal record for the mentioned person'. These documents will be updated every six (6) months and sent to our Directorate.
  - The ''Residence Certificate'' belonging to tanker drivers will be taken from the Birth Registration Office and if there is a change of residence, the new residence certificate will be sent to our Directorate. All these requests shall be regularly met by the companies without the need for warnings by our Directorate.

#### Filling Ramp / Issues to be Considered for LNG Land Tankers' Being Filled

- All filling tanker personnel in the land filling unit will be pre-trained by their firms in terms of LNG usage
  conditions and on basic hazards and this training will be certified, SRC5 drivers licences (SRC5 type
  professional qualification certificate) will be kept in the vehicle. In addition, companies are responsible for
  fulfilling all obligations mentioned in the ADR regulation.
- Companies will present the names of the new vehicle drivers to our Directorate with the necessary information and documents for entry into our facility, in terms of ease of follow-up, not with the current vehicle driver list to be sent every three months, but only for the new vehicle drivers. In addition, changes in tankers and trailers will be notified to our Directorate in the same way.
- The information about the driver of the vehicle to fill in the name of another company, and trailer must be reported to our Directorate in writing by both companies, and the demand in this direction will not be accepted if such a request is made by the company.
- Quarterly Land Tanker Allocations will not be revised in any way after being notified to us. In case of idle
  capacity, companies intending to receive more allocations will be able to benefit from the additional
  allocation by obtaining the necessary approval of the relevant Department/s of BOTAŞ General
  Directorate.
- Motorized road transport vehicles compulsory financial liability and union insurance, and manufacturing information and insurances belonging to trailers coming filling for the first time will be submitted to the Directorate before the tanker fills and will be filled within working hours after approval after the necessary inspections. (This includes in the trailers which has been heated and cooled and serviced for any reason. In addition, the company has to provide the maintenance information about trailer). Compulsory financial liability insurances will be issued for both tow trucks and trailers.
- During filling, materials that will not emit sparks will be used and filling will be made according to 88 % low level.
- The fire extinguisher tubes will be controlled by the driver with visual inspection and the low pressure fire tube will not be kept in the vehicles. As stated in the Regulations, on site general inspections shall be done once a year, the extinguishing agent shall be renewed at the end of a maximum of four (4) years and the hydrostatic tests shall be carried out once every ten (10) years and the above issues shall be specified on the tubes. If a problem occurs in the fire tubes, the faulty tube will be replaced with a new one without waiting for the legal period, and the driver will have knowledge and training on fire extinguishing devices.
- In the filling facility, tankers and/or carrier personnel must strictly comply with all written and oral instructions given to them by the officers in order to ensure their life safety, occupational safety and safe and accurate operation of the filling operation.
- During filling, protective clothing (flame-free, antistatic, one-piece or two-piece work clothes), hard hat, protective face cover, antistatic shoes and cryogenic gloves will be worn.
- Drivers will act in accordance with the standards, vehicle drivers are required to wear all personal protective equipment before entering the main entrance door and carry the identity cards allocated by the companies to the Drivers visibly by not removing them until the related transactions finished. Excluding

- KDD, the drivers will not use the non-PPE materials (t-shirt, shorts, slippers, etc.) until they fill up and leave our Operation Directorate.
- The carrier connects the grounding clamp to the grounding bar in the tank body before filling and making connections, sees the grounding lamp on. When the filling is finished, the arms or hose is removed from the tank and the grounding clamp is separated from the grounding rod in the tank body. If the carrier forgets this and breaks off the ground clamp by means of vehicle movement, the damage will be compensated from the company.
- The filling must be monitored by both sides to the end of the filling, after the filling is completed, two (2) minutes shall pass so as to enamel an exact percolation, if the filling is realized with hose instead of the handle, the hose should be shaken slightly and the percolation should be provided downward.
- The vehicle should be loaded in accordance with the loading limit, and certainly should not be loaded on top of this limit and should not be insisted on this. The drivers who do not load according to the loading limit and who have been determined to increase the load by trying different ways will not be taken to the facility again for filling.
- Tankers will come to the filling with clean, sound, empty and equipped with safety devices. Otherwise, tankers can't be filled. The buyer or the carrier is responsible for the responsibility.
- There will be one tool box in the land tankers belonging to the companies.
- The transporter can not make anything that will disrupt and close the traffic in the parking places and in front of the ramp filling entrance doors and on the road route.
- The maximum speed limit of the carrier tank within LNG terminal boundaries is 20 km/h. Each company will provide a list of people, who can intervene in tanker accidents, and a list of vehicles that can intervene as soon as possible and contact information. Vehicles will be able to intervene as soon as possible with a list of vehicles and contact information will be given.
- Carrier shall not carry matches and lighter within the tank filling area, including social facilities, and shall not smoke. Cell phone can't be used in the filling area, and photos can not be taken. The carrier will deliver all of the mobile phones, matches, lighters, cigarette etc. on the security gate (filling ramp) and will receive them at the exit.
- After removing the carrier tanker to the weighbridge, the tanker stops and turns off the tape, lights and the main switch, and pulls the handbrake. While the tank is being filled, no device connected to the battery should function/operate. Otherwise, the battery circuit breaker main switch must be installed in the tank because it may cause short circuit f for any reason.
- During the filling of the tank, a malfunction which may be due to a fault in the weighbridge or the printer shall be recorded with a minute.
- If trailer will be filling LNG for the first time, LNG transport tank manufacturing technical information will be delivered along with gas-free and cooling reports to the Terminal Process and Technical Safety Directorate, and subsequent to the controls, oxygen measurement will be carried out at trailer after the necessary approval is obtained. After the oxygen measurement reaches 3 percent or below, and the pipe thicknesses, TSV PSV lines are checked, the pressure will be reduced to 0, 5 bar, the filling will be made.
- Set values of Tank PSVS's and filling line PSV's will be seen clearly seen on the valves, certificates will be available and calibrations, maintenance will be performed periodically. Filling lines PSV set will be at least 20 bar
- On the top of the trailer there will be a sign indicating that there is dangerous, flammable and explosive substance in the trailer. The orange plates representing LNG (UN Code:1972, Hazard Code:223) (dimensions: 300mm x 400 mm) should be fixed on all sides of the tank and the tanks be positioned in such a way as to enable the orange plates to be seen.
- The Red hazard class sheets showing the flammable liquids class (class 3) and the phrase "DANGEROUS SUBSTANCE" should be on the back and on either side of the vehicle and secured to places visible on the tank. These hazard class plates should not be disassembled or replaced when carrying LNG. There should be a "EMPTY-FILLED" plate in the rear of the vehicle in such a way as to centre the bumper and in a visible position.
- In order to enable the visibility of LNG land tankers in the dark, a tape with phosphorescent strip must be fixed to the tank.
- After the carrier leaves the premises, he/she will not park at the junction of BOTAŞ for sleeping or for any other purpose and will continue his/her route without waiting.
- **PI Diagram:** this diagram should both be in the file and scraped on the metal plate and riveted to a place easily visible on the tanker. When designing this PI diagram, it should be drawn according to the manifold arrangement recommended by BLNG. Manufacture of the system should be done accordingly.

- The information showing the tanker identity should be in the file. This information should be engraved on a metal plate and riveted to a place easily visible on the tank.
- The safety valve group controlling the internal tank pressure should be found in two sets, and the other set should be deactivated when the set is activated with the help of a triple valve. Each set must have two safety valves. While one is set to the design pressure of the tanker, the other is set to 0.3 bar below it as a minimum.
- Lower filling, upper filling and gas return lines and valves on these lines should be 02".
- BLNG has the right not to fill a tank or to fill a tank on condition that the revisions and modifications BLNG shall offer will be made.
- If the tow truck is new, financial liability insurance policy, hazardous material liability insurance policy and comprehensive insurance policy will be presented to our Operation Directorate.
- Transporter tanker shall be parked on the outside allocated parking area. The carrier shouldn't do the following in the allocated parking area:
  - The carrier can not perform repairs on the tanker (in case of necessity, however, under the supervision of the technical safety officer by obtaining permission from the shift supervisor);
  - The carrier can not clean the tanker;
  - The carrier can not make an outdoor lighting;
  - The carrier can not make a fire under the tanker;
  - The carrier can not contaminate the environment and the social facility;
  - The carrier may not leave his/her tanker, trailer and/or tow truck at the parking place allocated to him. The driver can not leave his/her vehicle;
  - The tankers will definitely not emit natural gas within the boundaries of the facility. If the nitrogen pressure in the tankers coming to the facility for the first time will be released to the atmosphere, after the necessary gas measurements have been carried out, degassing will be done under the supervision of the shift supervisor.

## 10.4. It is prohibited for the ship and sea vessels in the port area to do repairs, scraping, painting, welding and other hot works, cold works or other maintenance works.

As long as the vessels or marine vehicles carrying dangerous cargo or engaged in loading / unloading operations are tied to the coastal facilities, they must keep a red lantern at nights, which can be seen from any direction at the highest possible level. Such vessels or marine vehicles should hoist the ''bravo'' flag in the daytime as long as they are tied to the coastal facilities.