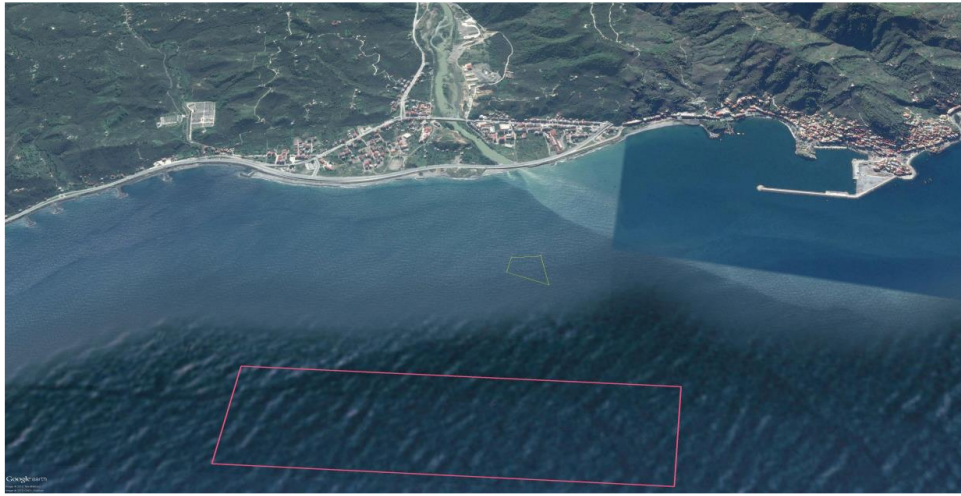


## KARADENİZ LPG

### DANGEROUS CARGO HANDLING GUIDE



14.03.2024

( See Revision Page for Revisions)

**Sinan Öztürk**  
**Terminal Manager**

**REVITION PAGE**

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## 1. INTRODUCTION

### 1.1 General Information About the Terminal

Karadeniz LPG Terminal ( here in referred to as Terminal ) is located on the eastern side of the Tirebolu Fishing Port. Mariner are referred to Turkish Hydrography Service ( “ TN-ONHO ” ) Chart No 133 and also BA Chart No 2236

Tirebolu is a small town in the Giresun Province, Turkey. It is located eastern Black Sea coast of Turkey and has a little harbour.

Terminal entered service in November 2006 as a LPG Terminal. LPG is stored in 2 x 3000 m<sup>3</sup> tanks which is situated 2500 metres far from berth

### FACILITY INFORMATION FORM

1	Facility Operator Name	KARADENİZ LPG TERMINAL
2	Contact Details of the Property Operator ( Adress, phone, fax, e-mail )	Körliman Mahallesi Eski Doğankent Yolu Sokak No:4 Tirebolu Giresun Tel: (454) 429 2800 Faks: (454) 429 3032 <a href="mailto:info@krdlpg.com">info@krdlpg.com</a> , <a href="http://www.krdlpg.com">www.krdlpg.com</a>
3	Name of the Port Facility	Karadeniz LPG Depolama ve Deniz Terminali Tic. A.Ş.
4	The province where the Facility is Located	Giresun
5	Contact Details of the Property ( Adress, phone, fax, e-mail and web page )	Körliman Mahallesi Eski Doğankent Yolu Sokak No:4 Tirebolu Giresun Tel: (454) 429 2800 Faks: (454) 429 3032 <a href="mailto:info@krdlpg.com">info@krdlpg.com</a> <a href="http://www.krdlpg.com">www.krdlpg.com</a>
6	Geographical area where the propert is located	BlackSea Region
7	Port Authority to which the facility is affiliated and contact details	Tirebolu Port Authority Phone: ( 454 ) 411 4073 Fax: ( 454 ) 411 5238
8	The Municipality to which the facility is affiliated and contact details	Tirebolu Municipality Phone: ( 454 ) 411 4016 Fax: ( 454 ) 411 2077
9	Name of the Free Zone or Organized Industrial Zone where the facility is located	—



10	Validity Date of Port Facility Operation Permit/Temporary Operation Permit Certificate	14.11.2026
11	Operating Status of Facility	Own Cargo and Additional 3rd party
12	Name and surname of the property manager, contact details ( phone, fax, e-mail )	Sinan Öztürk Phone: ( 454) 429 28 00 Fax: ( 454) 429 30 32 Mobil: (537) 816 25 89 sinanozturk@krdlp.com
13	Name and Surname of the facility's hazardous Cargo operations officer, contact details ( phone, fax, e-mail )	Sinan Öztürk Phone: ( 454) 429 28 00 Fax: ( 454) 429 30 32 Mobil: (537) 816 25 89 sinanozturk@krdlp.com
14	Name and Surname of the facility's Dangerous Goods Safety Consultant, contact details ( phone, fax, e-mail )	Elif Kaplan Phone: ( 212) 351 30 59 Faks: - Mobil: (535) 360 53 26 elif@tmgddanismanlik.com
15	Port Facility Sea Coordinates	41° 01 07" N 38° 50 28" E
16	Types of dangerous cargoes handled at the plant ( MARPOL Annex-1, IMDG Code, IBC Code, IGC Code, IMSBC Code, Grain Code, TDC Code and asphalt/bitumen and scrap loads )	IGC Code
17	Dangerous Cargoes Handled at the Facility	LPG, Propane, Butane, Etyl Mercaptan Un No 1011-1075-1965-1969-1978-2363
18	Classes for Handling Cargo Subject to IMDG Code	–
19	IMSBC Subject to Code, Groups in the characteristic table for Cargo Handled	–
20	Types of ships that can dock at the facility	LPG Ship
21	Distance of the main road ( kilometers )	4
22	Distance of the railway or railway connection	None

23	Name of nearest Airport and distance from the property ( kilometers )		Ordu-Giresun Airport-75 kilometers		
24	Load Handling of the Facility ( Ton/year )		50000 ton/year		
25	Whether scrap handling is carried out at the facility		No		
26	Is there a border crossing? ( Yes/No )		No		
27	Is there a custom field? ( Yes/No )		No		
28	Load Handling Equipment and Capacity		Pipeline 10 inches 2500 meters		
29	Storage Tank Capacity ( m <sup>3</sup> )		6139 m <sup>3</sup>		
30	Outdoor Storage ( m <sup>2</sup> )		—		
31	Semi-enclosed storage ( m <sup>2</sup> )		—		
32	Indoor Storage ( m <sup>2</sup> )		—		
33	Designed fumigation and fumigation clearance area ( m <sup>2</sup> )		—		
34	Name / title of the pilotage and trailer services provider contact details		Mertcan Denizcilik Denizcilik Liman Hizmetleri İç ve Dış Ticaret Ltd. Şti. Kaledere Mahallesi Yirmi Temmuz Caddesi № 2 Kat: 2 Ünye ORDU Phone: (452) 323 7008 Fax: (452) 333 0453		
35	Has a Security plan been published? ( Yes/ No )		Yes		
36	Waste Reception Facility Capacity		Exempt		
37	Features, docks/piers etc.				
Dock/Pier No	Height ( meters )	Width ( meters )	Maximum water Depth ( meters )	Minimum Water Depth ( meters )	Largest Bert-up Vessel ( DWT-GT/meters )
Buoy	—	—	11.5 meters	—	15000 DWT ve 145 meters
Pipeline Name		Piece	Length ( meters )	Diameter ( inches )	
LPG		1	2500	10	

## **1.2 Procedures**

Only LPG is handled and stored at the coastal facility. Loading / unloading, handling and storage procedures for dangerous goods handled and temporarily stored at the coastal facility are as follows:

- a) Ship Loading/Unloading
- b) Storage
- c) Working at the Sea
- d) Truck Loading
- e) Truck Unloading
- f) Truck Gas-Up
- g) Port Information and Terminal Regulations
- h) Working on the ship
- i) Truck entry and exit

## **2. RESPONSIBILITIES**

All parties within the dangerous goods transportation activities are obliged to take all necessary measures to transport safely, securely and environmentally friendly, to avoid accidents and to reduce the damage as little as possible, if an accident occurs. The responsibilities defined in the Regulation on the Transport of Dangerous Goods by Sea and Loading Safety (hereinafter will be referred to as the regulation) and what needs to be done to fulfill these responsibilities are as follows:

- a) General Responsibilities
- b) Responsibilities of the Cargo Owner
- c) Responsibilities of the Carrier
- d) Responsibilities of the Port Facility Operator
- e) Responsibilities of the Ship's Contact Person

## **2.1 General Responsibilities**

The general responsibilities of all parties involved in the transport of dangerous goods are as follows:

- They are obliged to take all necessary precautions to make the transportation safe, secure and harmless to the environment, to prevent accidents and to minimize the damage in case of an accident.
- In emergency situations such as fire, leakage, spillage that occur during the transportation of dangerous goods, they benefit from the EmS Guide, which includes Emergency Response Methods and Emergency Schedules for Ships Carrying Dangerous Goods.
- They benefit from the Medical First Aid Guide (MFAG) in the IMDG Code annex in order to provide the necessary medical first aid for the people affected by the damages of the dangerous goods and the health problems caused by the accidents involving these loads.

## **2.2 Responsibilities of the Cargo Owner**

- To Prepare mandatory documents, info and documents related to dangerous cargoes and to ensure that these documents are present with the cargo during the transportation activity
- To ensure that dangerous cargoes are classified, packaged, marked, labelled and plated in accordance with their type.
- To ensure that dangerous cargoes are loaded, stacked and securely fastened in accordance with the rules and in accordance with the rules in approved packaging and cargo transport units.

## **2.3 Responsibilities of the Carrier**

- Requests mandatory documents, information and documents related to dangerous goods from the cargo authority and ensures that they are present with the cargo during the transportation activity.
- Controls the compliance of the dangerous goods classified, packaged, marked, labeled and plated by the cargo authority with the legislation.
- Checks that the dangerous goods are packaged in accordance with the rules by using approved packaging and load transport units, they are safely loaded and securely fastened to the cargo transport unit.

**2.4 Responsibilities of the Port Facility Operator**

- Not to approved the ships carrying dangerous goods at the port facility without the permission of the port authority.
- Provides written information to the ship that will dock at the facility within the scope of facility rules, cargo handling rules and relevant legislation.
- It does not handle dangerous goods for which it has not received permission from Authority and does not victimize the ships that will dock by planning in context.
- Requests mandatory documents, information and documents related to dangerous goods from the cargo owner and ensures that they are found with the cargo. In case the relevant documents, information and documents cannot be provided by the cargo owner, it is not obliged to accept or handle the dangerous cargo at the port facility
- Shares all the data that may be required according to the characteristics of the cargo with the ship concerned and performs the loading or unloading operation according to the agreement to be reached. The ship does not make changes in the operation without the knowledge of the person concerned.
- To determine the operating limits taking into account the safe working capacity of the facility and the weather forecasts and To take the necessary precautions to keep the ship safely connected to the port and to carry it out
- Checks the transport documents containing information that the dangerous cargoes arriving at the facility have been properly classified, packaged, marked, labeled, labeled and safely loaded into the cargo transportation unit.
- To ensure that the personnel involved in the handling of dangerous goods and the planning of this handling are certified by receiving the necessary trainings and To not assign non- certified personnel to these operations.
- Ensures that the dangerous goods handling equipment at the facility is operational and that the relevant personnel are trained and documented on the use of these equipment.
- To ensure that the personnel use protective equipment appropriate to the physical and chemical characteristics of the dangerous cargo by taking occupational safety measures in the port facility

## **DANGEROUS CARGO HANDLING GUIDE**

- To ensure that activities related to dangerous cargoes are carried out in docks, piers and storage established in accordance with these Works.
- To equip the quays and piers reserved for ships that will load or unload dangerous liquid bulk cargoes with appropriate installations and equipment for this work.
- Keeps an up-to-date list of all dangerous cargoes on board ships berthed at the facility and indoor and outdoor at the facility. To provide this information to the relevant person upon request.
- Informs the port authority of the immediate risk posed by the dangerous cargoes handled or temporarily stored in its facility and the measures taken for this purpose.
- To report the port authority of the accidents related to dangerous goods, including the accidents at the entrance to the indoor areas.
- To provide the necessary support and cooperation in the controls and inspections carried out by the Administration and the port authority.
- Provides transportation of Class 1 (except Class 1 Compliance Group 1.4 S), Class 6.2 and Class 7 dangerous cargoes, which are not allowed for temporary storage, out of the coastal facility as soon as possible without waiting. In cases where it is necessary to wait, it applies to the Administration for permission.
- Temporarily stores the cargo transport units where dangerous goods are transported in accordance with the separation and stacking rules, and takes fire, environment and other safety measures in accordance with the class of the dangerous cargo in the storage area. It keeps fire extinguishing systems and first aid units ready for use at any time in the areas where dangerous cargoes are handled and makes the necessary controls periodically
- Receives permission from the port authority before the hot work work and operations to be carried out in the areas where dangerous cargoes are handled and temporarily stored.
- Prepares an emergency evacuation plan for the evacuation of ships from coastal facilities in case of emergency, presents it to the port authority and informs the relevant persons about the plan found appropriate by the port authority.
- Ensures that the internal loading of the load carrying units is carried out in accordance with the loading safety rules in the facility.

### **2.5 Responsibilities of Ship's Contact Person**

- Ensures that the cargo to be carried by the ship is certified as suitable for transportation and that the cargo holds, cargo tanks and cargo handling equipment are in a suitable condition for cargo transportation.

## **DANGEROUS CARGO HANDLING GUIDE**

- Requests all mandatory documents, information and documents related to dangerous cargoes from the cargo person and ensures that they are present with the cargo during the transportation activity.
- Ensures that the documents, information and documents required to be present on board regarding dangerous cargoes within the scope of legislation and international conventions are appropriate and up-to-date.
- It checks the transport documents containing information that the cargo transportation units loaded on the ship are properly marked, labelled and loaded safely.
- Informs the relevant ship personnel about the risks of dangerous cargoes, safety procedures, safety and emergency measures, response methods and similar issues.
- Keeps up-to-date lists of all dangerous cargoes on board and declares them to interested parties upon request.
- It ensures that the loading program, if any, is approved and documented and kept in working condition.
- Informs the port authority and the coastal facility about the immediate risk posed by the dangerous cargoes on board the ship approaching the coastal facility and the measures taken for this purpose.
- It does not accept to carry dangerous cargo in case of leakage of dangerous cargo or in case of such a possibility.
- Notifies the port authority of dangerous cargo accidents that occur on its ship during the cruise or while it is at the coastal facility.
- Provides the necessary support and cooperation in the controls and inspections carried out by the Administration and the port authority.
- It does not accept to carry dangerous goods that are not included in the ship certificates issued by the relevant institutions and organizations.
- Ensures that the ship's person in handling dangerous goods use personal protective equipment appropriate to the physical and chemical properties of the cargo during handling.
- Provides the requirements for the loading safety of the cargoes loaded on the ships.

## **3. POLICIES / APPLIED RULES AND MEASURES TO BE FOLLOWED BY TERMINAL**



### **3.1 Storage**

If the operators of the coastal facility cannot ensure that the dangerous cargoes are stored in the area where they are unloaded on the pier or dock, they ensure that these substances are transported out of the coastal facility as soon as possible without waiting in the port area.

LPG and ethylmercaptan used for odorizing LPG are handled at the terminal. LPG is stored in covered tanks. Ethylmercaptan is stored in the tank located in the odorizing unit.

### **3.2 Packages and Labels**

Dangerous cargo are properly packaged and labelled which including risk and safety information to identify the hazardous material.

Only bulk liquid cargo is handled in terminal.

### **3.3 Safety Clothes**

Terminal personel who handled dangerous goods, ship's crew and cargo interests wear safety clothes during loading, unloading and handling which adequate phsical and chemical properties of cargo.

According to Turkish Occupational Health and Safety Law , each personel have to use personel protective equipment. By the way ship's crew and third party personel have to use personel protective equipment.

### **3.4 Firefighting Equipment**

Personel who will be fighting in hazardous material handling field are equipped with firefighting equipment. Fire extinguishers and first aid units and equipment are kept always ready for use

Because of there is no interface between the terminal to ship, terminal will not be able to contribute in the fire fighting of ship. There is fire fighting equipment in tug which used in ship's maneuver.

There is 13 pieces of fire hydrants in terminal. Besides there is two sprinkler system on the truck loading platforms and compressor platform

### **3.5 Emergency Plan**

Terminal operators prepares emergency evacuation plan for the removal of vessels in case of emergency situation from coastal resort of sea and after that offers this plan to the approval of the port authority.

### **3.6 Fire Protection**

Terminal operators are obliged to take fire, safety and security measures

### 3.7 Approval Authority

Terminal operator is approved by port authority mentioned in this article and is announced this information to the relevant matters.

### 3.8 Control

The inspection of the provisions of this article is carried out by the port authority and when any nonconformity is detected, the handling operation is stopped and the nonconformity is eliminated.

### 3.9 Untrained Staff

According to the Regulation on Training and Authorization in the Scope of International Code for Dangerous Goods Transported by Sea published in the Official Gazette dated 11/2/2012 and numbered 28201, personnel who do not have the necessary training and certificates are not allowed to work in dangerous cargo handling operations and enter the areas where these operations are carried out.

## 4. CLASSIFICATION, CARRYING, LOADING / UNLOADING, HANDLING, SEPERATION, STACKING and STORING OF DANGEROUS CARGO

### 4.1 Classification of Dangerous Cargo

Only LPG and Ethylmercaptan are handled at the terminal.

Cargo	Proper Shipping Name	UN №	Class
LPG	Butane	1011	2
	Liquefied Petroleum Gas	1075	2
	Hydrocarbon Gas Mixture, Liquefied (Not Otherwise Specified)	1965	2
	Isobutane	1969	2
	Propane	1978	2

TMGD TEHLİKELİ MADDELER  
GÜVENLİK BAKIMCI A.Ş.  
Sakarya Bulvarı No: 10, 06500 Çankaya/ANKARA  
Tic. Sic. No: 274545 - Mers: 08100012745450000000  
Tic. Sic. No: 274545 - Mers: 08100012745450000000  
Tic. Sic. No: 274545 - Mers: 08100012745450000000

Cargo	Proper Shipping Name	UN No.	Class
Ethylmercaptan	Ethylmercaptan	2363	3

## 4.2 Dangerous Cargo Packing and Packages

LPG terminale dökme olarak gelmektedir. Etilmerkaptan varille tesise getirilip kokulandırma ünitesindeki tanka boşaltılmaktadır.




### 4.3 Dangerous Cargo Marking, Labels and Placards


There is no a special labels for LPG which transported as bulk. The plate of ethylmercaptan is as follows.



**TMGD TEHLİKELİ MADDELER**  
**GÜVENLİK BAKANLIĞI A.Ş.**  
Sultan Saitin İsmi Tarih: 26.04.2014, L. No: 14/10000/ÜT  
Tic. Sic. No: 270545 - Mersis No: 0805001545000000  
Tic. Sic. No: 270545 - Mersis No: 0805001545000000

## 4.4 Dangerous Cargo Packaging and Approval Marking

Cargo	Proper Shipping Name	UN №	Label
LPG	Butane	1011	
	Liquefied Petroleum Gas	1075	
	Hydrocarbon Gas Mixture, Liquefied (Not Otherwise Specified)	1965	
	Isobutane	1969	
	Propane	1978	

Cargo	Proper Shipping Name	Un No	Label	Packaging Group
Ethylmercaptan	Ethylmercaptan	2363		PG I

#### 4.5 Separation Tables on Board and Shore Facility According to the Classes of Dangerous Cargoes

It is not applied because it is a liquid bulk cargo terminal.

#### 4.6 Segregation distances and terms of dangerous cargo in warehouses

It is not applied because it is a liquid bulk cargo

## 5. HANDBOOK OF DANGEROUS CARGO

The Coastal Facility, which is engaged in dangerous cargo loading / unloading, handling and temporary storage activities, in order to contribute to the safe performance of these activities;

- Dangerous Goods Classes
- Packages of dangerous goods,
- Packaging,
- Labels,
- Marks and packing groups,
- Separation tables on the ship and in the port according to the classes of dangerous goods,
- Dangerous goods emergency response action flow diagram
- Emergency contact information
- Emergency equipment locations and operating instructions

a Hazardous Materials Handbook containing coastal facility rules issues, in a pocket-portable size, has been prepared and presented to the use of interested parties

## 6. OPERATIONAL ISSUES

## 6.1 Procedure of Ships Carrying Dangerous Cargo Safely Berthing, Loading /Unloading, Shelter or Anchorage During The Day and at Nigh

- a) Terminal will accept only LPG gas carrier (LPG/C) vessel.

**TMGU TEHLİKELİ MADDELER  
GÜVENLİK DANIŞMANLIK A.Ş.**  
Sarı Sahil Mah. Tuzlu Su No: 25/1 A. Levent Kat: 10/10  
Tic. Sic. No: 275545    Telsiz: 0212 364 90 80  
Tlx. No: 0212 364 90 80    Faks: 0212 364 90 80  
E-posta: info@tmgu.com.tr    Web: www.tmgu.com.tr

- b) Under adverse conditions the Terminal Manager, captain or the pilot may order the cancellation of a scheduled berthing at any stage of operation.
- c) There are three designed anchorages in the Tirebolu Harbour, which one of them may be used by arriving or departing LPG gas tankers. Tankers are not to anchor outside these anchorages except in any emergency
- d) All tankers mooring and unmooring at the Terminal are required to use one or two tugs.
- e) Depending on the ship length and expected conditions, normal mooring pattern will be 2 x 130 m head lines and 4 x 130 m stern lines. An additional head line may be run if appropriate.
- f) As far as possible, it is recommended that tankers use ropes on self-stowage drums, mooring lines are to be secured by the winch brake with clutch disengaged.

## **6.2 Procedure of According to The Seasonal Conditions Additional Measures That Loading/Unloading, Limbo Operation of Dangerous Cargo Should be Taken by Terminal**

- a) Terminal is not sheltered from Black Sea and subjected to the effects of direct sea swell. North-westerly winds produce the worst wave conditions at Terminal.
- b) In bad weather, vessels must wait for weather to improve before mooring. This is decided between the captain and the pilot.
- c) Load / discharge operations shall be stopped in the event of storms, high winds in the vicinity. In addition, all cargo valves and all vents and inert gas ("IG") valves shall be closed.
- d) Load / discharge operation shall be stopped and the hose disconnected when the wind speed reaches a sustained 5 beaufort (30~40 km/h – 16~20 knots).
- e) If the wind speed exceeds 6 beaufort (40~50 km/h – 21~26 knots), vessels will be removed and the Terminal will close.

## **6.3 Procedures About Flammable, Combustible or Explosive Materials must be Kept Away From Process Which could be Generate Sparks and Tools, Equipments or Instruments Which Could be Generate Sparks Should Not Switched on Where Dangerous Cargo Handling, Stowage and Storing Area**

- a) Before starting any hot work, on board a ship, the responsible person of the company to carry out the hot work shall be in possession of a written authorization to carry out such hot work issued by the port authority. Such authorization should include details of the specific location of the hot work as well as the safety precautions to be followed.

b) In addition to the safety precautions required by the port authority, before starting any hot work, the responsible person of the company to carry out the hot work together with the responsible persons of the ship, should add any additional safety precautions required by the ship.

c) These should include:

- the examination, and frequency of re-examination of local areas and adjacent areas, including tests, carried out by accredited testing establishments, to ensure the areas are free, and continue to be free, of flammable and/or explosive atmospheres and, where appropriate, are not deficient in oxygen;
- the removal of dangerous cargoes and other flammable substances and objects away from the working and adjacent areas. This includes scale, sludge, sediment and other possible flammable material;
- efficient protection of flammable structural members, e.g. beams, wooden walls, floors, doors, wall and ceiling coverings against accidental ignition; and
- the sealing of open pipes, pipe lead-throughs, valves, joints, gaps and open parts to prevent the transfer of flames, sparks and hot particles from the working areas to adjacent or other areas.

d) A duplicate of the hot work authorization and safety precautions should be posted adjacent to the work area as well as at each entrance to the work area. The authorization and safety precautions should be readily visible to, and clearly understood by, all persons engaged in the hot work.

e) While carrying out hot work it is essential that:

- checks are carried out to ensure that conditions have not changed; and
- at least one suitable fire extinguisher is readily available for

f) During hot work, on completion and for a sufficient time after completion of such work, an effective fire-watch should be maintained in the area of the hot work as well as adjacent areas where a hazard resulting from the transfer of heat may be created.

g) Additional valuable guidance on hot work procedures may be found in the International Safety Guide for Oil Tankers and Terminals (ISGOTT) should be consulted.



## **7. DOCUMENTATION, CONTROL AND RECORD**

### **7.1 Procedures Regarding to All Necessary Documents, Information and Certification Relating to Dangerous Cargo and Their Procurement and Control by The Relevant Persons**

Cargo handling at the terminal are exchanged between the vessel and terminal for the documents that are;

- 1) Arrival Report (NOR – Notice of Ready) (blank form brought by agent),
- 2) Inspection Report (blank form brought by agent),
- 3) Ballast Water Declaration (blank form brought by agent),
- 4) The Waste Notification Form (blank form brought by agent),
- 5) Ship's Declaration Form (blank form brought by agent),
- 6) Minimum Safety Manning Certificate,
- 7) Crew List,
- 8) Passenger List,
- 9) Bill of Lading,
- 10) Cargo Manifest,
- 11) Vessel Experience Factor,
- 12) Store List,
- 13) Last Ten Port of Call,
- 14) Maritime Health Declaration,
- 15) Medical Certificate,
- 16) Dredging Certificate,
- 17) Tonnage Certificate,
- 18) Certificate of Insurance or other Financial Security in respect of
- 19) Civil Liability for Oil Pollution,
- 20) Last Cargo
- 21) Confirm number, size and disposition of LPG gas loading / unloading manifold connections,
- 22) The ISPS Code Security Level for the vessel,
- 23) Ship / Shore Safety Check List (prepares the ship and terminal together),

24) Unloading Protocol.

### **7.2 Procedures of Keeping a Regular and Accurate Current List of All Dangerous Cargo in The Terminal Area and Other Relevant Information**

Only LPG is handled at the terminal. All product records are kept in files and electronically.

### **7.3 Procedures Regarding to Appropriate Identification of Hazardous Substances Delivered to The Facility, Correct Use of Shipping Names of Dangerous Cargo, Certification, Packaging, Labeling and Declaration, Inspection on Loading and Transport of Dangerous Cargo in The Certified and Proper Package, Container or Cargo Unit in a Safety Way and Reporting of Inspection Results**

Only LPG is handled at the terminal. All documents related to the ship to be evacuated are received from the agency or the ship operation directorate to the operations chief. These documents are examined and after being found appropriate, the goods acceptance process is made and the evacuation program is prepared.

### **7.4 Procedures Related to Procurement of The Dangerous Cargo Safety Data Sheets (SDS)**

According to the Laws of our country as of January 1st, 2014, Dangerous Goods Safety Data Sheet (SDS) with the following information must be present with the dangerous goods to be transported through all transport modes (by road, rail, air and marine).

- Number,
- PSN name (Proper Shipping Name) (required for marine transport)
- Class (with lower hazards)
- Packaging Group (Class 3, 4.1, 4.2, 4.3, 5.1, 6.1, 8, 9)
- Marine Pollutants or otherwise,
- Tunnel Restriction Code (required for road transport).

It is checked that if this document is available with the Dangerous substance for the all Dangerous goods to be accepted in the port.

### **7.5 Procedures For Records and Istatistics of Dangerous Cargo**

All cargoes arriving at the terminal are recorded in the on-line system of the Ministry of Transport and Infrastructure. In addition, electronic and paper copies of records are kept at the facility. In addition, the amount of LPG handled to the Port authority every 3 months is presented by the Dangerous Goods Safety Advisor as a report.

The records of all ships arriving at the terminal are kept in the ship file.

## **7.6 Information About the Quality Management System**

As Karadeniz LPG, all of our activities carried out in line with our continuous improvement goals are carried out in an integrated manner with management systems. Our company has ISO 9001 management systems certificates obtained from the relevant authorized certification bodies. The documents mentioned in this guide are numbered and recorded and made available to the relevant persons within the company. Within the scope of these documents, we are subject to internal and external audits at least once a year, and our activities aiming to continuously increase the importance we attach to human and environmental health and our stakeholder satisfaction are continued.

## **8. EMERGENCY SITUATION, EMERGENCY PREPAREDNESS and RESPONSE**

### **8.1 Response Procedures For Dangerous Cargo That are Dangerous For Life, Property and/or Environment and Hazardous Situations Involving Hazardous Materials**

The choice of protective actions for a given situation depends on a number of factors. For some cases, evacuation may be the best option; in others, sheltering in-place may be the best course. Sometimes, the set locations may be used in combination. In any emergency, officials need to quickly give the public instructions. The public will need continuing information and instructions while being evacuated or sheltered in-place.

Proper evaluation of the factors listed below will determine the effectiveness of evacuation or in-place protection (shelter in-place). The importance of these factors can vary with emergency conditions. In specific emergencies, other factors may need to be identified and considered as well. This list indicates what kind of information may be needed to make the initial decision.

#### **a) The Dangerous Goods**

- Degree of health hazard
- Chemical and physical properties
- Amount involved
- Containment/control of release
- Rate of vapor movement

#### **b) The Population Threatened**

- Location
- Number of people
- Time available to evacuate or shelter in-place
- Ability to control evacuation or shelter in-place
- Building types and availability
- Special institutions or populations, e.g., nursing homes, hospitals, prisons

c) Weather Conditions

- Effect on vapor and cloud movement
- Potential for change
- Effect on evacuation or shelter in-place

### **8.1.1 Protective Actions**

Protective Actions are those steps taken to preserve the health and safety of emergency responders and the public during an incident involving releases of dangerous goods.

Isolate Hazard Area and Deny Entry means to keep everybody away from the area if they are not directly involved in emergency response operations. Unprotected emergency responders should not be allowed to enter the isolation zone.

This “isolation” task is done first to establish control over the area of operations. This is the first step for any protective actions that may follow..

### **8.1.2 Evacuate**

Evacuate means to move all people from a threatened area to a safer place. To perform an evacuation, there must be enough time for people to be warned, to get ready, and to leave an area. If there is enough time, evacuation is the best protective action.

Begin evacuating people near by and those outdoors in direct view of the scene. When additional help arrives, expand the area to be evacuated downwind and crosswind to at least the extent recommended in this guidebook. Even after people move to the distances recommended, they may not be completely safe from harm.

They should not be permitted to congregat such distances. Send evacuees to a definite place, by aspecific route, far enough away so they will not have to be moved again if the wind shifts.

### **8.1.3 Shelter In-Place**

Shelter In-Place means people should seek shelter inside a building and remain inside until the danger passes. Sheltering in-place isused when evacuating the public would cause greater risk than staying where they are, or when an evacuation cannot be

performed. Direct the people inside to close all doors and windows and to shut off all ventilating, heating and cooling systems.

In-place protection (shelter in-place) may not be the best option if

- the vapors are flammable;
- if it will take along time for the gas to clear the area; or □ if buildings cannot be closed tightly.

Vehicles can offer some protection for a short period if the windows are closed and the ventilating systems are shut off. Vehicles are not as effective as buildings for in-place protection.

It is vital to maintain communications with competent persons in side the building so that they are advised about changing conditions. Persons protected-in-place should be warned to stay far from windows because of the danger from glass and projected metal fragments in a fire and/or explosion.

Every dangerous goods incident is different. Each will have special problems and concerns. Action to protect the public must be selected carefully. These pages can help with initial decisions on how to protect the public. Officials must continue to gather information and monitor the situation until the threat is removed.

## **8.2 Information on Resource, Capability and Capacity of The Terminal Regarding to Respond to Emergencies**

Terminal fire fighting equipment is;

- a) Water Tank – 1 pcs (572 m<sup>3</sup>)
- b) Diesel Fighting Pumps – 2 pcs (2 x 250 m<sup>3</sup>/h)
- c) Fire Hydrants – 13 pcs
- d) Sprinkler Systems – 2 pcs (Truck Loading Platform + Compressor Platform )

## **8.3 Regulations Related to The First Aid For Accidents Involving Dangerous Cargo (First Aid Procedures, First Aid Resources and Capabilities and So on.)**

Hazardous substances that are listed in the IMDG Code that can create fire and measures to be taken against leakage are given in the appendices.

In terminal, only LPG is handled. Whether big or small, first action in such an accident is prevented gas leakage. The prevention of gas leakage is not sufficient to eliminate danger. If there is not a fire, the space should be ventilated. Whether the space with LP gases is not sufficiently ventilate or the wind doesn't blow enough by the way sprinkler system should be run. If the space with LP gases in the absence of sprinkler installation, sprinkler effect should be made by means of fire hoses.

- Prevent gas leakage
- Ventilate the space
- Run the sprinkler system (or made sprinkler effect)

All operation employees has been given first aid training and certificated.

#### **8.4 On-Site and Off Site Notifications Required to be Made in Case of Emergency**

In an emergency, notification will be made in three ways:

- a) In-house notices,
- b) State authorities notices,
- c) Notices to neighbouring plants which will be affected by event.

#### **8.5 The Procedures for Reporting Accidents**

Dangerous cargoes accidents must be reported to the Port Authority. The report format shall be free-form and include the following details in full.

- The type and time of the accident
  - Exact location of the accident site,
  - The class/quantity and condition of the Hazardous Substances involved in the accident,
  - Whether hazardous good is marine pollutant,
  - The labels, marks on hazardous goods packaging,
  - Areas affected by hazardous substances,
  - The manufacturer of the hazardous goods, The number of dead and injured in the accident (if any),
  - What has been done to respond the accident,
  - From which organizations assistance is requested,
  - Digger ship or adjacent plants that may be affected by the accident,

#### **8.6 Coordination, Support and Co-operation Methods with Authorities**

All accidents related to dangerous goods will primarily be coordinated with Port Authority. Aid units of county fire department, DEMP and adjacent facilities will provide support and cooperation by informing the Port Authority. .

## **8.7 Emergency Plan For The Evacuation Of The Ship And Vessels From The Terminal in Case of Emergency**

### **8.7.1 Preparation for Emergency Separation Operation**

All emergencies should be reported to the Port Authority.

If the emergency separation of ship is decided, the safe places that the ship can be transferred under controlled conditions must be specified by the Port Authority.

In case of an emergency situation that requires emergency separation, the ship's captain and port facilities shall initiate the emergency separation by mutual agreement and inform the situation to the Port Authority as as soon as possible. A Port Master (or his representative), Terminal Manager (or Operation Chef), Ship Captain, Guide Captain shall come to a mutual agreement on the time and type of the separation before the immediate action where the severity and time of the emergency allow.

The ship's machinery, steering gear and mooring bouys systems equipment shall be ready for use immediately.

All cargo discharge, ballast discharge process must be stopped and shall be prepared for the separation process.

If necessary, salt water system of the ship must be watered and water mist must be used for strategic departments.

If the atmosphere needs vent operation, the engine room staff must be ready, all unnecessary receiver entrance must be closed, all the necessary safety measures relating to the normal operation must be fulfilled and and a warning notice must be published.

If the necessary responds are over the terminal resources for all emergencies, local police or fire department must be reported immediately.

The decision to depart the ship under control is set out on the safety principle and it should cover the following requirements:

- a) The adequacy of the tugs
- b) The ships's ability to depart with its own power
- c) The availability of a safe place that a ship can or will be taken in an emergency case.
- d) Fire-fighting competence



- e) The proximity of other vessels
- f) Emergency towing wires

Emergency towing wires shall be kept on the top and shoulder of the ships as long as the ship is at Port Facility. The eye of the rope should be wound down to the sea level and the section on the board must be tight with at least five rounds to the bollard. Part of the top board of the rope must be stretched from the bollard. A cord that can carry the rope must be tied right before the eyes of the rope and the eye of the rope must be located in a way that it is three meters above the sea level. The eye of rope must be kept at this level while the ship is at mooring bouys.

### **8.7.2 Realization of Emergency Separation**

If all the preparations above examined and deemed appropriate, the ship will be immediately departed.

Emergency separation will be provided by the fulfillment of the following processes in order. A close coordination and cooperation between Terminal, Ship and Port Authorities is required for each phase.

Emergency Separation Process is as below.

- a) Activating an alarm
- b) Inform about the emergency by VHF phone
- c) Making the first official assessment of the situation between the ship's captain and officer of Terminal.
- d) Suspension of Unloading operation
- e) Implementing terminal and ship emergency plan measures
- f) Removal of the flexible hose connection.
- g) The deterioration of the current situation and availability of the aforementioned emergency separation.
- h) Making the assessment of the situation between the ship's captain, terminal officer, port authority or port master, guide captain
- i) The decision to the emergency separation
- j) Inform the adjacent facilities and other vessels
- k) The deployment of tugs around the ship for an emergency separation, complement of the preparation and announcement of the situation
- l) Completing the preparations for the ship by the captain and indicating that it is ready.
- m) Granting approval for the opening of the release hook by the competent person.

**ATTENTION! THE IMPLEMENTATION OF EMERGENCY SEPERATION PROCESS MUST BE CONSIDERED AS THE LAST RESORT AND SEPERATION HOOKS MUST NOT BE RELEASED BEFORE TAKING ALL NECESSARY MEASURES AND FULFILLING THE CONDITIONS ABOVE.**

### **8.7.3 After Emergency Seperation**

- a) The ship should be declared after the seperation by deciding on the to be towed and taken away
- b) The ship must be transferred and moored to the area allocated by accompanied tugs or by its own machine.
- c) A possible damage or deficiency should be determined by examining the Mooring Bouys Facility.
- d) The time at which the ship and port facility will be ready for unloading cargo is determined.
- e) Imperfections that may have occured during emergency departure should be shared

## **8.8 Emergency Plan For The Evacuation Of The Ship And Vessels From The Terminal in Case of Emergency**

### **8.8.1. Waste Collecting and Handling**

Consequential waste are collected to waste bins taxonomically and handled to be stored properly. Waste occurred as a result of the maintenance process are handled in that scope.

Additional waste classes, if available, are provided to be integrated into the current waste classes.

### **8.8.2 Waste Disposal**

According to the hazardous or non-hazardous properties, the waste collected are isolated from the facility by selling them or using contracted organizations which are in conformity with legal recycling/disposal methods.

Opportunities of all contractors and carriers within the body of waste management in terms of appropriate methods of waste handling and/or disposal are examined.

In case of any contracting service received for handling, selling and/or disposal of the waste, those contracting companies are observed whether they fulfill their legal liabilities or perform recycling or disposal without damaging the environment.

It is an obligation to keep all the records concerning waste disposal.

Contaminated Packages; These waste are empty barrels. If occurred, should be left to the contaminated package area in the dump site and Environmental Consulting Firm and Environmental Management System Supervisor contact with contracted and licensed company to send those contaminated packages through filling up the National Waste Handling Form within the time specified in the laws and regulation. Relevant documents of National Waste Handling Form and other documents are kept in environment folder.

Contaminated Waste; are used gloves, waste cottons and work uniforms. When occurred, should be collected at the waste barrel which is located at the exit of the production warehouse department and then moved to the waste area. Within the time specified in the laws and regulation, Environmental Consulting Firm and Environmental Management System Supervisor contact with contracted and licensed company to send those contaminated packages through filling up the National Waste Handling Form. Relevant documents of National Waste Handling Form and other documents are kept in environment folder.

## **8.9 Emergency Drills and Their Records**

### **8.9.1 Implementation of Practices**

Emergency organization personnel should get various trainings to get ready for their duties with the purpose of providing against emergencies within the facility. If necessary, such trainings must be organized through specialized agencies. In that scope, relevant personnel have received trainings on IMDG CODE regarding Hazardous cargoes and have been certified. Practices, which shall be performed in an effort to examine the efficiency of Emergency Plans and be prepared for facts, have to be planned in a way that they will be performed considering the worst scenario likelihood within the facility.

### **8.9.2 Practice Scenarios**

Planning practices needs two anticipations one of which is a single incident that the port experience and the other is the worst scenario with the combination of these single incidents. In accordance with the scenarios prepared, practices are ensured to be performed in the fastest and most efficient way possible.

### **8.9.3 Emergency Practices Which Will be Performed Within The Facility;**

- a) Have to be indicated within annual training plans.
- b) May be planned as local or general responses,
- c) Safety, spillage, etc. may be combined in practice scenarios,
- d) Practices can be performed with or without notices.
- e) Practices are based upon different emergency scenarios.
- f) A practice may be actually performed as it can be negotiated as a desk work or a seminary,

g) Each practice is prepared with scenarios of different hours, days, seasons and incidents.

### 8.10 Information on Fire Protection Systems

There is 13 pieces of fire hydrants in terminal. Besides there is two sprinkler system on the truck loading platforms and compressor platform.

The fire fighting system in the terminal is fed by two 250 m<sup>3</sup>/h capacity diesel pumps which connected to a water tank that 572 m<sup>3</sup> capacity.

### 8.11 Procedures for Approval, Inspection, Testing, Maintenance and Availability of The Fire Protection System

#### Emergency and Fire Equipment

**Fire Hydrant:** Fire equipment controls are carried out according to the periodic control form. Fire systems are kept ready at all times in the terminal.

**Fire Extinguishers:** All fire extinguishers undergo an eye examination and are checked monthly. After the check, the extinguishers are marked on them. During the control, extinguishers, especially with dry powder, are turned upside down and their base is gently tapped, thereby allowing the dust inside the tube to move. Otherwise, the dust inside the extinguishers that remain in the same position for a long time may solidify by collapsing to the base. If any deficiencies or failures are detected as a result of the control, they are corrected by the relevant responsible persons.

**Control of fire extinguisher tubes:** It will be carried out by independent third parties authorized by the Turkish authorities. Valid certificates and control records received will be stored and maintained by the terminal.

**Fire Cabinets and Fire Hoses:** A list of all fire cabinets will be kept.

**Fire Alarm Detectors in the Fields, Emergency Warning Lights:** Maintenance and attitudes will be carried out programmatically by the Maintenance Department and all records will be kept by this department.

**Electric Fire Pumps:** Maintenance and attitudes will be carried out by the Maintenance Department according to the maintenance program and all records will be kept by the Maintenance Department

**Diesel Fire Pumps:** Maintenance and attitudes will be carried out in accordance with the maintenance program.

Facility Project designed and approved in accordance with the following standards:

- AD Merkblatter HPO 2000
- EEMUA 190: 2000
- TS 1446 (1998), TS 1449 (1996), TS 1445 (1996)
- TS NFPA 20, 30, 57, 58 8.12

In addition, periodic checks are carried out annually.

### **8.12 The Measures to be Taken in Case of Failure on Fire Protection Systems**

Facility will demand support of DEMP Units and Fire Brigade in case of the fact that firefighting equipment doesn't work or not sufficient.

### **8.13 Other risk Control Equipment**

Facilities include some equipment as risk control hardware:

- PLC Control System
- Hydraulic Control System
- Gas Dedectors ( 4 PCS )

## **9. OCCUPATIONAL HEALTH AND SAFETY**

### **9.1 Occupational Health and Safety Measures**

- The basic personal protective equipment must be weared in the terminal area. (Helmets, clothing, gloves, safety footwear). Some other personel protective equipment like safety goggles, ear protection, safety belts, life jackets etc must be weared according to what it is to be done and working place.
- Nowhere in the plant (inside the fenced area, along the pipeline route, the ship's deck) is allowed to smoke. Everyone who comes to the facility (employees, customers, visitors, crew etc.) is forbidden to carry cigarettes, lighters and matches.
- Using mobile phone is prohibited in the all plant including workshop excluding some buildings indoor (administrative building, social building, waiting building the driver).
- Motor vehicles maximum speed limit within the facility is 10 km/h. Overtaking and honking is prohibited.
- Parked vehicles which parked in car park areas have to be parked to the exit door. There are two on-site parking area and also one off-site parking area. Driver which parked vehicle in-site parking area must deliver his vehicle

key to security. Vehicle which is not to delivered vehicle key is prohibited to parked in-site parking area.

- Pedestrian path is marked to walk around plant. Walking is prohibited in motorway outside pedestrian path.
- It is obligatory to wear seatbelts while working higher than 3 m height.
- The observance of all the warning signs are mandatory.
- Running, shouting and joking is forbidden in facilities. The running is considered to be a fire alarm.
- There are two kind of siren in plant. One is for gas leak alarm and the other is for fire alarm.
- Bringing, keeping and using alcohol drinks and drugs in terminal is forbidden, and also come to terminal as drunk is forbidden.

## **9.2 Information About The Personal Protective Clothes and Procedures to Use Them**

### **9.2.1 General Rules and Principles**

- Employees must use safety equipment (hard hats, work wear, safety shoes, gloves, goggles, headphones, etc.) when necessary.
- People who do not use safety equipment (staff, subcontractor, contractor personnel, etc.) are not allowed to work in the facility.
- In noisy places, ear muffs or ear plugs should be used.
- It is obligatory to wear seatbelts while working higher than 3 m height.

### **9.2.2 Helmet**

- If there is possibility of falling from the top to the head or there is any possibility of hitting the any object in the work place, it is mandatory to wear hemlet.
- Everyone entering the site (employees, contractors, drivers, contractors, staff, visitors, etc.) must wear helmets.
- People who do not wear helmet are not allowed to enter the field.

### **9.2.3 Clothing**

- The work clothes must be worn when working in the plant.
- When repairing any machinery which has rotating parts (pumps, compressor, drills etc), do not wear skirt or dresses to avoid of ends of overalls arms coil rotating parts.
- When working in the gaseous medium (filling trucks etc) will be worn long-sleeved work clothes.

### **9.2.4 Safety Footwear**

- All the staff should wear antistatic safety footwear when working in the field.
- Operation personel should wear antistatic safety footwear with stel toecaps.
- Other personel (security etc) should wear antistatic safety footwear without stel toecaps.

### **9.2.5 Glove**

- All staff will use gloves which suitable performed working in the field.
- It is forbidden to work without gloves.

### **9.2.6 Goggles / Face Guard**

Employees or in their neighbourhood who working that could be dangerous to the eyes, is required wear goggles or visors. Goggles or visors must be worn are the things that;

- Working with bench grinder,
- Working with portable grinder,
- Working with drills,
- Working with paint sprayer,
- Working on sandblasting process, Using compressed air for claening purpose.

### **9.2.7 Safety Belt**

- It is obligatory to wear seatbelts while working higher than 3 m height.
- Safety belts should be checked throughly before using. Defective belts should not be used.
- Lanyard should be connected to lifeline.
- Lifeline should be less to the extent pf the space. As the gap increases the impact that will occur as a result of the fall.
- The anchorage point where ropes are connected to, must withstand a load of 1160 per kg that connects each bell.

### **9.2.8 Earl Mufs / Earl Plugs**

- Headphones should be used where the noise level is above 80 decibels. Place is required to using headphones where;
- when the air blow from the tank,



- when entering to jenerator room,
- the person is uncomfortable when working in any instrument noise,
- Earplugs decrease noise level of 25 decibels lowers, and headsets decrease noise level of 30 decibels lowers.

### **9.2.9 Mask**

When working in dusty enviroment, it is necessary to use a dust mask.

Place is required to using dust mask where;

- When cleaning somewhere in plant if dust turns out,
- Grinding metal etc, • Sandblasting etc.

### **9.3 Confined Space**

The procedure has been prepared for entry-exit works in the confined space. In addition, a work permit form has been prepared. It is forbidden to enter and exit the confined space without filling out this form and obtaining the approval of the facility chief.

## **10. OTHER CONSIDERATIONS**

### **10.1 Validity of the Dangerous Cargo Conformity Certificate**

The validity date of the Dangerous Goods Conformity Certificate is 18.11.2023.

### **10.2 Responsibilities of Dangerous Goods Safety Advisor**

These duties are determined in Article 23 of the Communiqué on Hazardous Materials Safety Consultancy published by the Ministry:

- a) To monitor compliance with the provisions of the international agreement and convention (ADR) on the transport of dangerous cargoes
- b) To provide suggestions to the enterprise on the transportation of dangerous cargoes in accordance with the provisions of ADR.
- c) To prepare the annual activity report of the enterprise related to the transportation of dangerous cargoes within the first three months as of the end of the year and to submit it to the Administration electronically.
- d) Determining the dangerous cargoes to be transported and determining the compliance procedures with the requirements in the ADR regarding this cargoes
- e) To provide guidance when purchasing transport vehicles that the enterprise will use for the transportation of dangerous cargoes that are the subject of activity.

f) To determine the procedures related to the control of the equipment used in the transportation, loading and unloading of dangerous cargoes.

g) To provide or enable employees of the enterprise to receive task-oriented training on national and international legislation and amendments made to them, and to maintain records of this training.

h) To determine the emergency procedures to be applied in the event of an accident or a possible event that may affect safety during the transportation, loading or unloading of dangerous goods, to have the employees conduct the exercises related to them periodically and to keep their records

i) To ensure that measures are taken to prevent accidents or serious violations from occurring again.

j) To ensure that the special conditions stipulated by the legislation on the transportation of dangerous goods are taken into account in the selection and operation of subcontractors or third parties

k) To ensure that employees involved in the transportation, filling or unloading of dangerous goods have knowledge of operational procedures and instructions.

l) To take measures to increase the awareness of the relevant personnel in order to be prepared for possible risks in the transportation, loading or unloading of dangerous goods.

m) To create instructions for the possession of documents and safety equipment in the vehicle, which must be present in the vehicle during transportation, according to the class of the dangerous goods.

n) To ensure the implementation of the plan by preparing the facility security plan specified in ADR Section 1.10.3.2.

o) To record all kinds of work he does, including training, supervision and control in the field of activities, to keep these records for 5 years and to submit them to the Administration if requested.

p) In the audits to be carried out in relation to the duties of the enterprise; to keep records by specifying the date and time related to the audited persons and works.

q) In case of any danger, to stop the work until the danger is eliminated, to start the work with its own approval when the danger is eliminated, and to notify the business or the competent authorities in writing of any stage in the process until the danger is eliminated.

r) To determine the procedures related to the works and operations related to the packaging, labeling, marking and loading of the cargo loaded on the transport vehicle in accordance with the provisions of ADR.

s) TMGDS authorized under the IMDG Code prepare quarterly reports on the responsibilities set out in the Regulation on the Transportation of Dangerous Cargoes

by Sea and Loading Safety of the coastal facilities they serve or serve and report this report to the Administration.

t) With the exception of coastal facilities that will receive TYUB for the first time, TMGD should be present at the coastal facility during TYUB inspections and actively participates in inspections.

u) Prepares the parts of the Dangerous Cargo Handling Guide of the coastal facility related to dangerous cargo handling and / or temporary storage together with the coastal facility and checks its accuracy. The TMGD also has a signature on the parts of the guide related to the handling and/or temporary storage of dangerous goods.

v) In addition to the IMDG Code, within the scope of dangerous goods handled at the coastal facility, they will have information about the IBC Code, IGC Code, IMSBC Code and MARPOL 73/78 applications and generally the dangerous goods activities of the coastal facility. The dangerous goods safety consultant notifies the coastal facility operator in writing, on the condition that it does not exceed 6 (six) months, of her evaluations on whether the dangerous goods handled at the coastal facility are handled in accordance with the rules

### **10.3 Matters For Carriers of The Dangerous Cargo Arriving/Leaving Terminal by Land (Matters on Required Documents That Must be Available in The Road Vehicle at The Entrance/Exit of Port or Coastal Facility Area, Equipment and Tools Required For This Vehicles, Speed Limits in The Port Area etc.)**

1) Article 9 of the Regulation on the Transportation of Dangerous Goods by Road sets out the documents that must be kept in vehicles:

- a) Transport documents
  - b) Driver training certificate (SRC 5),
  - c) Driver identity card (for each staff member on duty in the vehicle)
  - d) Written instruction (prepared by the shipper about what to do at the time of danger and accident),
  - e) ADR certificate of conformity,
  - f) Insurance policy (compulsory financial liability insurance for hazardous materials and hazardous waste)
- 2) Vehicles arriving at the facility should have a flame arrester to be attached to the exhaust.
- 3) Drivers of trucks entering the facility are required to wear at least basic personal protective equipment (hard hat, gloves, antistatic shoes).

4) The maximum speed limit in the port area is 10 km/h.

#### **10.4 Matters For Carriers of The Dangerous Cargo Arriving/Leaving Terminal by Sea (Matters on Day/Night Signals to be Shown by Ships Carrying bHazardous Goods and Vessels, Cold and Hot Work Procedures in Ships and so on.)**

##### **10.4.1 Flag**

According to the International Regulation on the Prevention of Conflict at Sea (COLREG); ships carrying dangerous goods pull a B (Bravo) signal flag during the day. At night, they light a red lantern that can be seen from all directions (360°)

#### **10.5 Additional Considerations to be Added by the Coastal Facility**

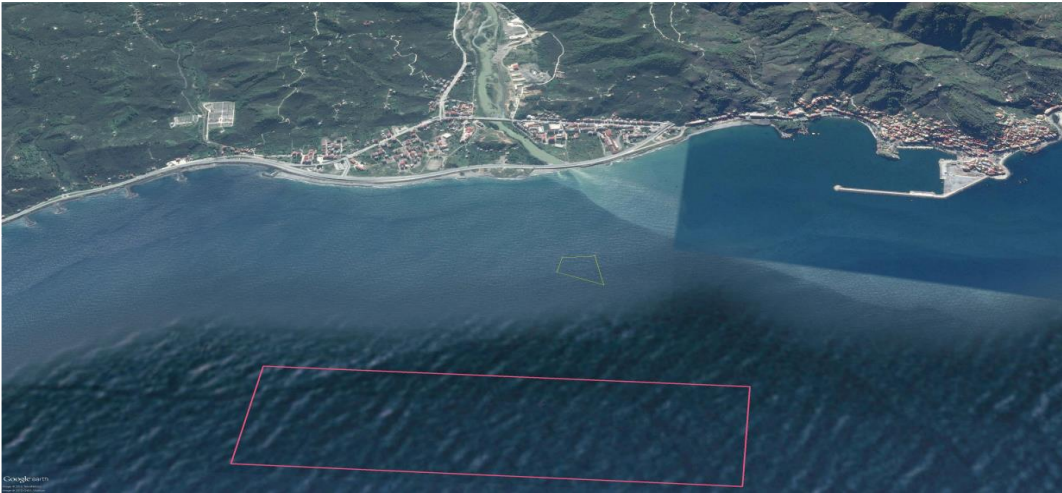
## 11. APPENDIX

### 11.1 Terminal General Layout





## 11.2 Terminal General Appearance Photos



**11.3 Emergency Focal Point and Contact Information**

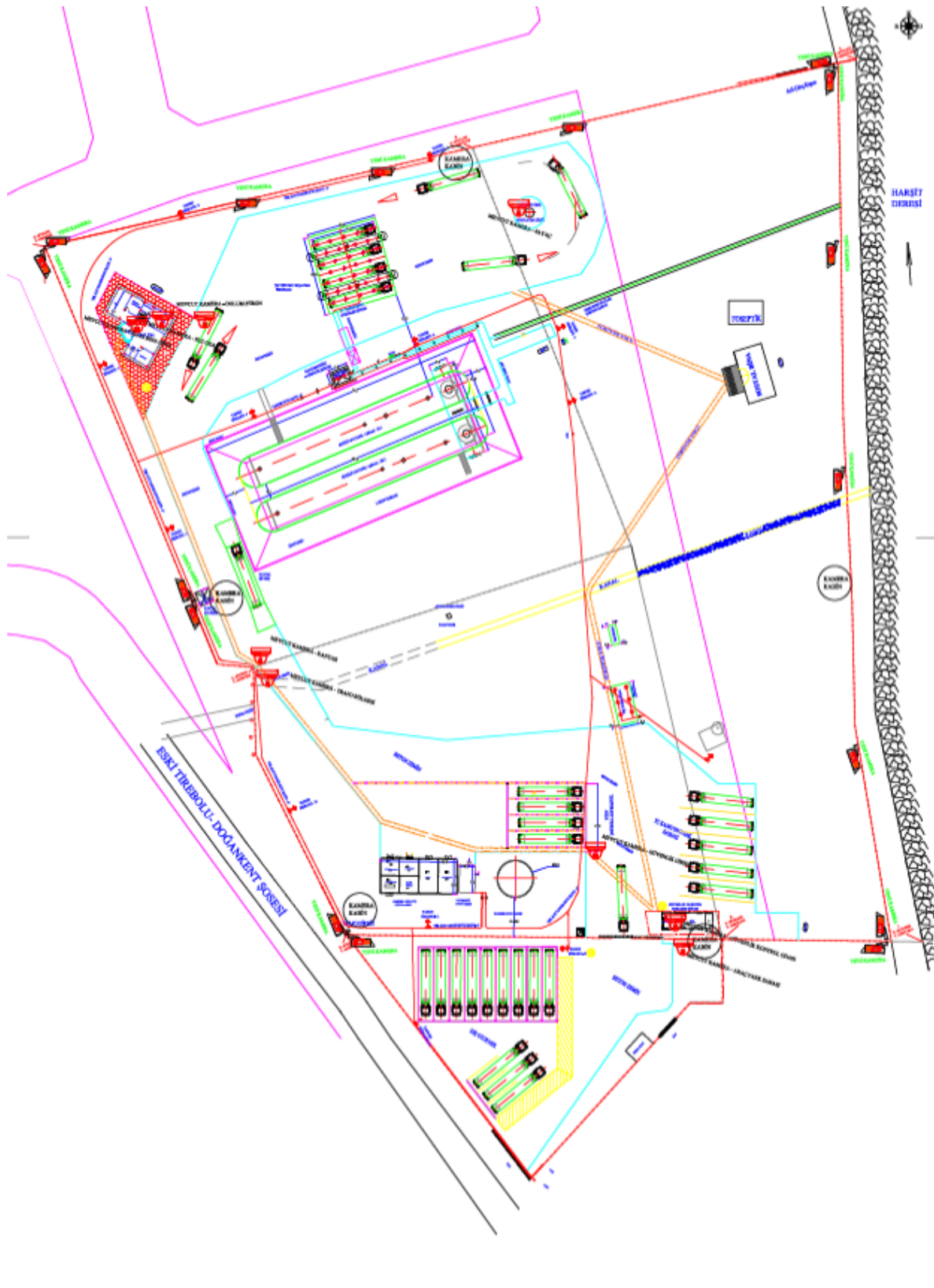
Short Code	Relevant Person or Institution	Telekom Code	Phone
<b>KARADENİZ LPG</b>			
502	Sinan Öztürk ( Terminal Manager )	–	0537 816 25 89
535	Elif Kaplan ( Dangerous Goods Safety Advisor )	–	0535 360 53 26
<b>MARINE</b>			
541	Tirebolu Port Authority	–	0454 411 40 73
–	Coast Guard Boat Command	158	0454 212 12 05
–	Coast Guard Regional Command - Trabzon	–	0462 325 47 82
	Maritime Auxiliary Search and Rescue Coordination Center (Coast Guard Regional Command-Samsun )		0362 445 29 08
	Coastal Safety – Giresun	151	0454 212 13 03
	Başaran Gemi Mühendislik LTD. ŞTİ. (Marine Pollution Emergency Response Company )		0216 987 07 17
<b>GOVERNMENT AGENCIES</b>			
540	Governorship-Tirebolu		0454 411 40 02
539	Tirebolu Municipality		0454 411 40 16
548	Giresun Customs Directorate		0454 216 30 02
549	Giresun Customs Enforcement Directorate		0454 216 30 12
	Provincial Directorate of Environment, Urbanization and Climate Change		0454 215 75 41

**DANGEROUS CARGO HANDLING GUIDE**

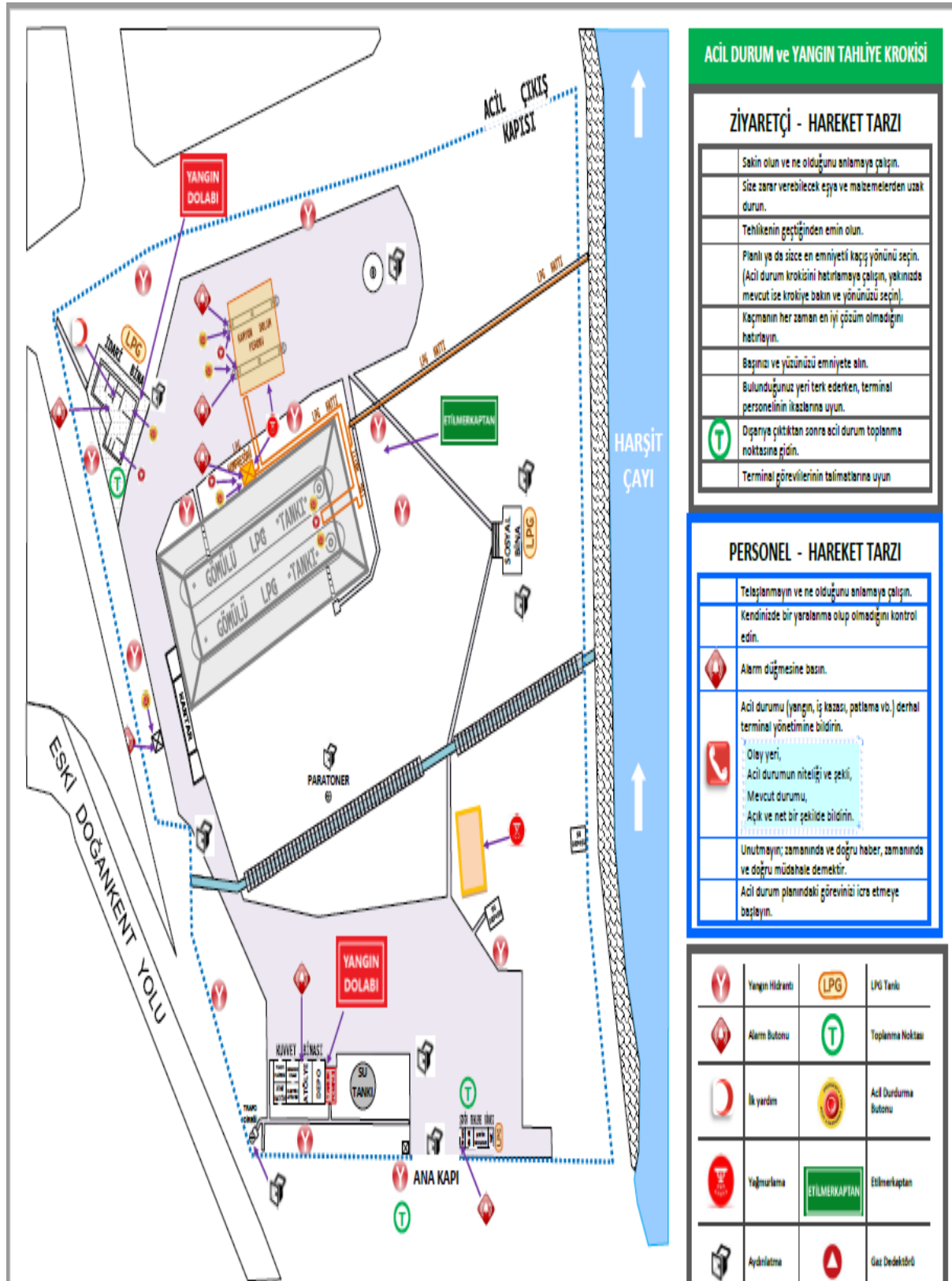
	District Directorate of Social Security Institution		0454 611 36 45
	Provincial Directorate of Meteorology		0454 216 10 45
	Provincial Directorate of Disaster and Emergency Management Presidency	112	0454 215 76 18 0454 215 76 19
	Provincial Directorate of Civil Defence		0454 212 39 58
595	Police	112	0454 411 40 19
596	Gendarme	112	0454 411 40 05
598	Tirebolu State Hospital	112	0454 411 42 28
599	Fire Station	112	0454 411 44 00



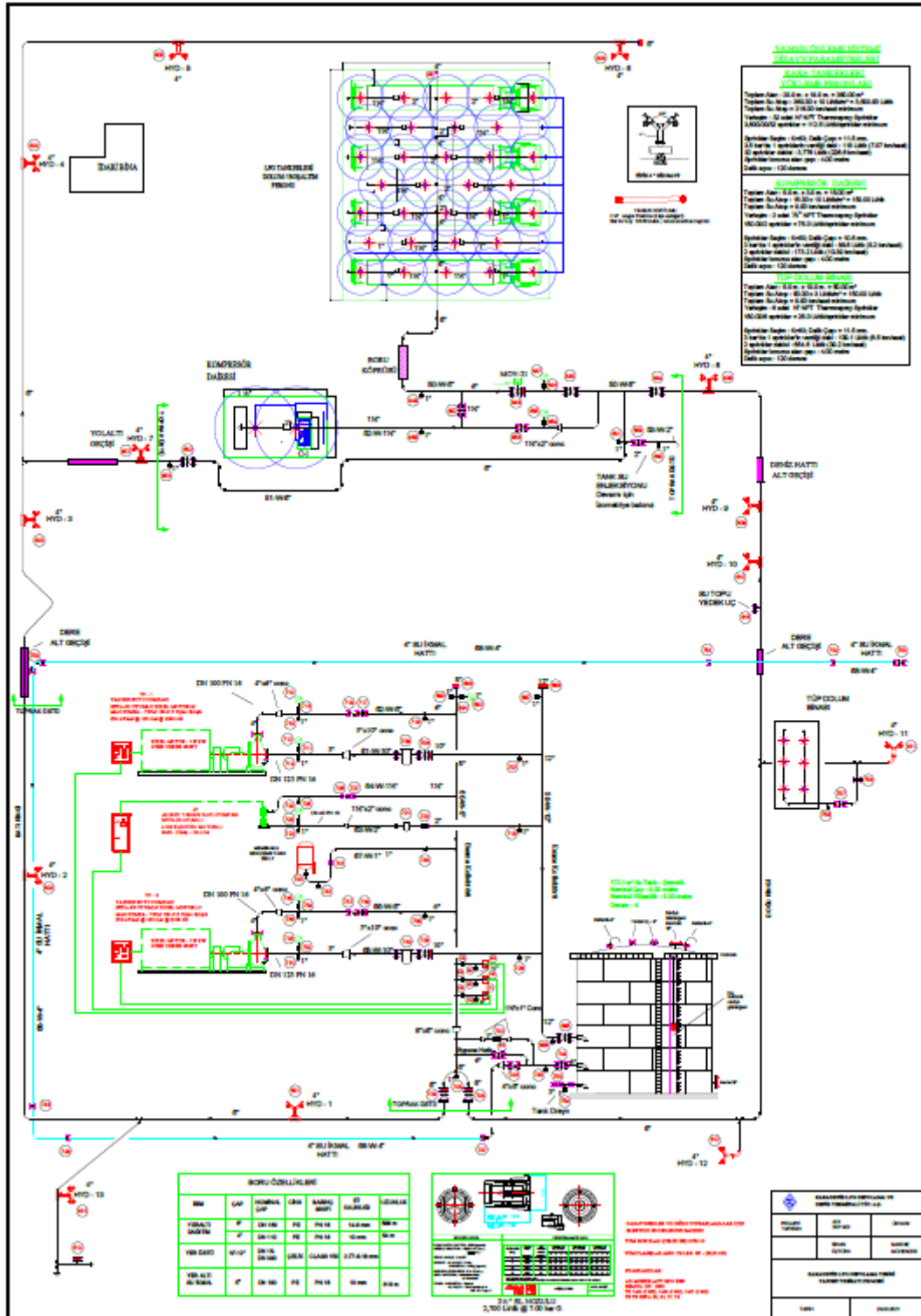
## 11.4 General Layout of The Area Where Dangerous Goods is Handled



### 11.5 Fire Plan of The Area Where Dangerous Goods is Handled



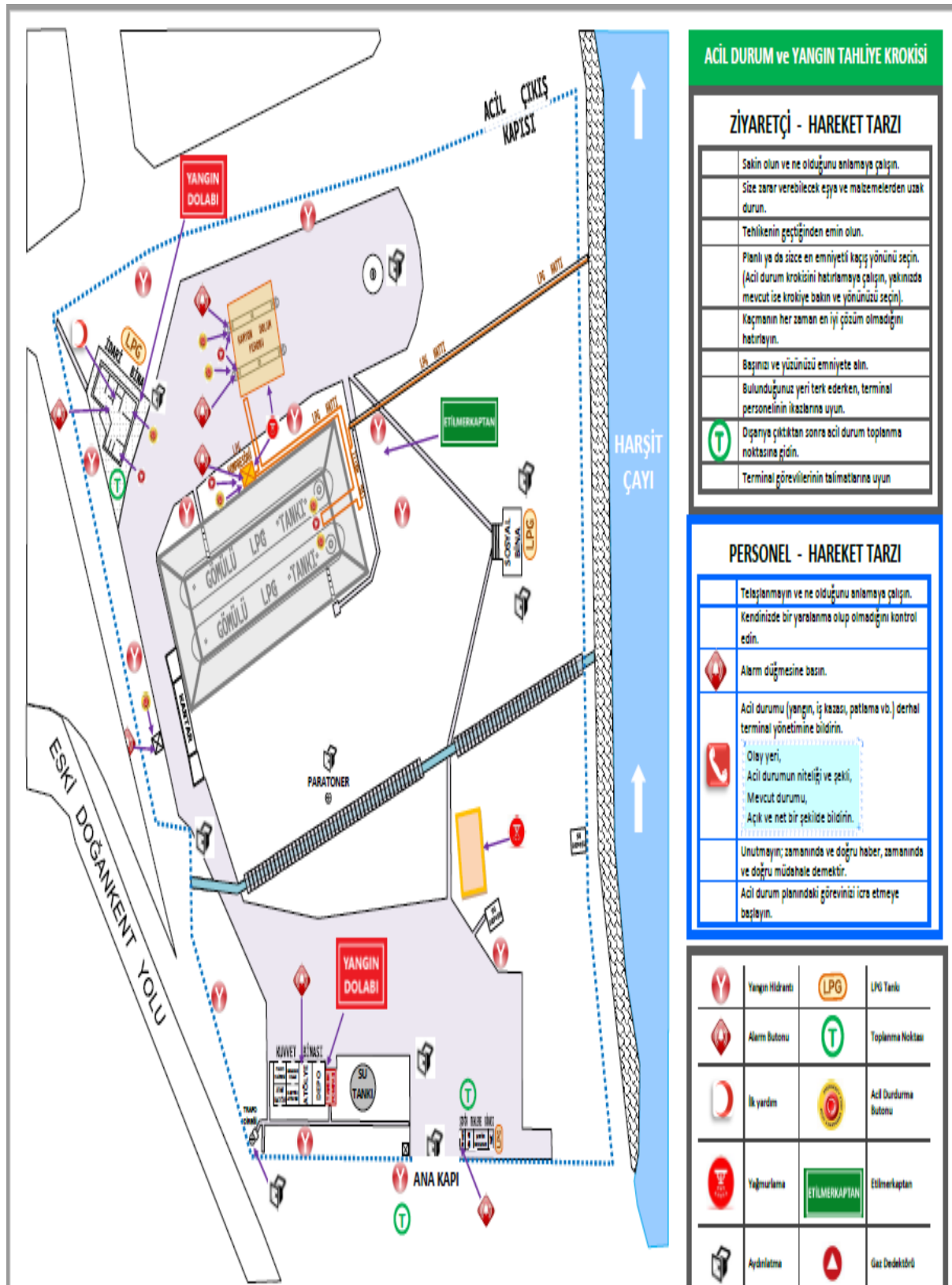
## 11.6 Terminal General Fire Plan



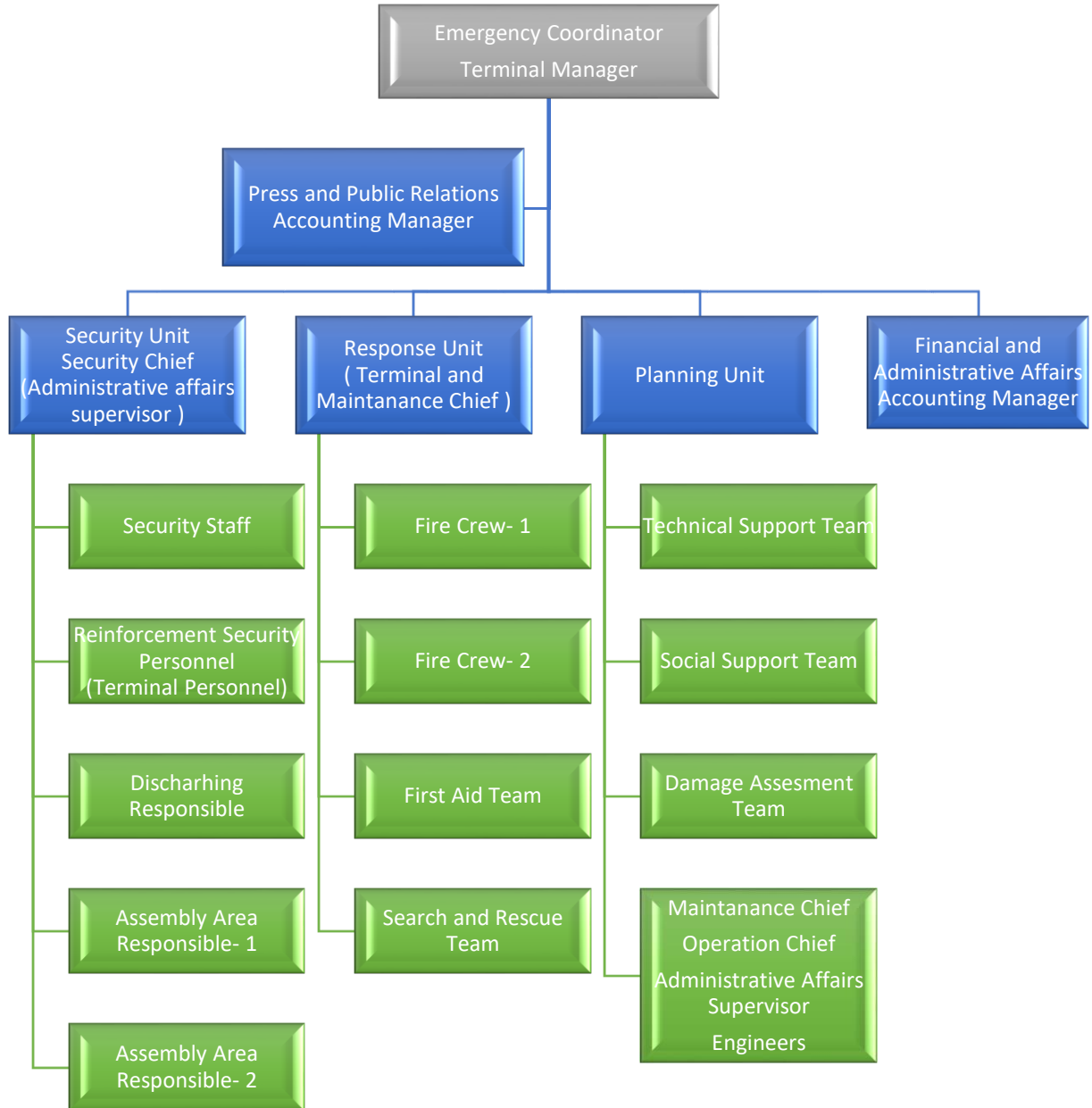
### **11.7 Emergency Plan**

The emergency plan prepared in accordance with the directive on the issuance of a Validity of the Dangerous Cargo Conformity Certificate is stored separately in the file. it is updated every 2 years.

## 11.8 Emergency Meeting Point Plan



## 11.9 Emergency Management Schema





### **11.10 Dangerous Cargoes Handbook**

The Dangerous Cargoes Handbook has been prepared and distributed to the personnel.

### **11.11 Leakage Fields and Equipment for CTU and Packages, Entrance / Exit Sketch**

Only bulk liquid cargo is handled in the terminal.

### **11.12 Inventory of Port Services Boats**

The service is taken from a 3rd party company.

### **11.13 Port Authority Administrative Boundaries, Anchoring Places, Pilot Landing /Boarding Place of Sea Coordinates**

Port authority administrative area of Tirebolu Port Authority, is bounded by the lines drawn between the following coordinates in the direction of true north from the Turkish territorial waters and adjacent marine and coastal area.

#### **11.13.1 Port Authority Administrative Boundaries**

<b>TIREBOLU PORT AUTHORITY BOUNDARIES</b>		
Kara Burun	41° 02' 39" N	38° 56' 00" E
Çam Burnu	40° 58' 27" N	38° 38' 33" E

#### **11.13.2 Anchoring Place**

i) No 1 Anchoring place: For vessels which carrying non dangerous goods and military vessels.

ii) No 2 Anchoring place: For vessels which carrying dangerous goods and vessels which for a long time remain at anchor.

iii) No 3 Anchoring place: For vessels which carrying dangerous goods and nuclear powered military ships and ships that are under quarantine and also ships will be done gas-free

<b>ANCHORAGE PLACE BOUNDARIES</b>				
1	41° 00' 40" N 38° 47' 00" E	41° 00' 20" N 38° 47' 40" E	41° 00' 50" N 38° 48' 35" E	41° 01' 10" N 38° 48' 00" E
2	41° 01' 36" N 38° 49' 48" E	41° 01' 36" N 38° 51' 42" E	41° 02' 00" N 38° 49' 48" E	41° 02' 00" N 38° 51' 42" E
3	41° 58' 06" N 38° 43' 00" E	40° 58' 57" N 38° 43' 00" E	40° 59' 00" N 38° 45' 00" E	41° 59' 57" N 38° 45' 00" E

### 11.13.3 Pilot Landing/Boarding Place

<b>PILOT LANDING/ BOARDING PLACE</b>		
<b>1</b>	41° 01' 27" N	38° 51' 54" E
<b>2</b>	40° 58' 30" N	38° 40' 00" E

### 11.14 Emergency Response Equipment Against Marina Pollution in Terminal

- Blocking Barrier 1500 meters
- Floating Storage Tank ( 2 pcs 10 m<sup>3</sup> each one )
- Skimmer ( 15 m<sup>3</sup> )
- Pressurized Washer
- Sorbent Barriers 102 Pcs
- Sorbent Pad 10 rolls
- Pull Head 2 Pcs
- Harrow 5 Pcs
- Shovel 5 Pcs
- Safety Goggles 5 Pcs
- Brush 4 Pcs
- Raincoat 5 Pcs
- Overall 5 Pcs
- Wheelbarrow 3 Pcs



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- Caution Strip
- Rope
- Life Jacket 5 Pcs
- Bucket 5 Pcs
- Pickaxe 5 Pcs
- Mask 15 Pcs
- Helmet 5 Pcs
- Bin liner 100 Pcs



YER	KULLANILMASI GEREKEN KİŞİSEL KORUYUCU DONANIM ( KKD )
TUM TESİS	<ul style="list-style-type: none"> <li>• Antistatik İş Ayakkabısı</li> <li>• Baret</li> <li>• Eldiven</li> </ul> Gaz operasyonları sırasında koruyucu gözlük
<ul style="list-style-type: none"> <li>• Kamyon Dolum Peronu</li> <li>• Gaz kompresör Dairesi</li> <li>• Isınma Tankları</li> </ul>	<ul style="list-style-type: none"> <li>• Antistatik İş Ayakkabısı</li> <li>• Baret</li> <li>• Eldiven</li> </ul> Gaz operasyonları sırasında koruyucu gözlük
<ul style="list-style-type: none"> <li>• Tank üstü</li> <li>• Jeneratör Dairesi</li> <li>• Yangın Pompa Dairesi</li> </ul>	<ul style="list-style-type: none"> <li>• Antistatik İş Ayakkabısı</li> <li>• Baret</li> <li>• Eldiven</li> </ul> Jeneratör ve Yangın Pompa Dairesinde Motorlar Çalışırken <ul style="list-style-type: none"> <li>• Kulaklık/ Kulak Tıkacı</li> </ul> Gaz Blöfö Yaparken <ul style="list-style-type: none"> <li>• Kulaklık/Kulak Tıkacı</li> </ul>
<ul style="list-style-type: none"> <li>• Mekanik Atölye</li> <li>• Elektrik Atölyesi</li> <li>• Depo</li> <li>• Numune Odası</li> <li>• Pano Dairesi</li> </ul>	<ul style="list-style-type: none"> <li>• Eldiven</li> </ul> Yapılan İşe Göre <ul style="list-style-type: none"> <li>• Koruyucu Gözlük</li> <li>• Kaynak Maskesi</li> <li>• Kulaklık/kulak Tıkacı</li> <li>• Dizlik</li> <li>• Yalıtılan Elektrik Halısı</li> </ul>

### 11.16 Dangerous Cargo Incident Notification Form

Number-Date			
Company / Institution			
Sender		Contact	
Reason			
<p>PORT FACILITY</p> <p>“DANGEROUS GOODS EVENT NOTIFICATION”</p> <p>DATE:</p>			
1. When the Accident Occured:			
2. If it is known how the accident occurred and the cause:			
3. The place where the accident occurred (coastal facility and/or ship), position and area of influence, ç) Information if there is a ship involved in the accident (name, flag, IMO no, owner, operator, cargo and the amount, the name of the captain and similar information):			
4. Meteorological conditions:			
5. UN number of the dangerous goods, proper transport name (based on the legislation specified in the definition of dangerous goods) and amount:			
The hazard class of the hazardous substance or, if applicable, the sub-hazard section:			
Packing group of the dangerous goods, if any:			
Additional risks of the dangerous goods, such as marine pollutants, if any:			
Sign and label details of the dangerous goods:			

The characteristics and number of the package, cargo transport unit and tanker in which the dangerous goods is transported:

Manufacturer, sender, carrier and receiver of dangerous goods:

6. The extent of the damage/pollution caused:

7. Number of dead and injured in the accident (if any):

8. How the accident was intervened:

9. From which organizations help was requested:

10. Other ships or neighboring facilities that may be affected by the accident:

FORM PREPARED :

Name and Surname:

Job :

Signature :

### **11.17 Check Result Notifications Form For Dangerous Cargo Transport Units**

There is no cargo coming to the terminal with CTU. Only bulk LPG is handled and stored in the terminal.

## 11.18 Other Necessary Attachments

### 11.18.1 EmS Fire Schedule

F – D FLAMMABLE GASES		
General Comments		<p>Gases in closed tanks exposed to heat may explode suddenly in or after a fire situation by a Boiling Liquid -Expanding Vapour Explosion (BLEVE).</p> <p>Crew members should be aware of the explosion hazard and take appropriate action.</p> <p>Keep tanks cool with copious quantities of water.</p> <p>Fight fire from a protected position from as far away as possible.</p> <p>Extinguishing a burning gas leak may lead to the formation of an explosive atmosphere.</p> <p>Flames may be invisible.</p>
Cargo on Fire on Deck	Packages	<p>Create water spray from as many hoses as possible.</p> <p>Do not try to extinguish a gas flame.</p>
	Cargo Transport Units	<p>Cool burning transport units and nearby cargo exposed to the fire with copious quantities of water.</p> <p>Do not try to extinguish a gas flame.</p>
Cargo on Fire Under Deck		<p>Stop ventilation and close hatches.</p> <p>Use cargo space fixed fire-extinguishing system. If this is not available, create water spray using copious quantities of water.</p>
Cargo Exposed to Fire		<p>If practicable, remove or jettison packages which are likely to be involved in the fire.</p> <p>Otherwise, keep cool for several hours using water.</p>
Specials Cases UN 1075, UN 1965		<p>Sudden or short-term events (e.g. EXPLOSIONS) may danger the safety of the ship.</p>

**11.18.2 Introduction to the Emergency Schedules for Fire (SUMMARY)****6. FIRE-FIGHTING MEDIA****6.1 Water**

6.1.1 Water is the obvious fire-fighting medium at sea and is recommended for most fires involving dangerous goods. However, it should be noted that shore-based fire-fighters may use a different medium.

6.1.2 When water is applied to a burning cargo, the temperature is reduced and the fire will be extinguished when the temperature drops below the ignition point. However, water is not suitable to extinguish all fires involving dangerous goods. Different fire-fighting media should be used if so indicated on the specific EmS FIRE SCHEDULE.

6.1.4 Some dangerous goods will react chemically with water, producing flammable and/or toxic gases. The most effective way to extinguish a fire involving these dangerous goods is to smother them with a dry inert powdered material. However, the availability of suitable inert material on board is limited. It may also be dangerous to approach the fire in order to use inert material properly. Consequently, the most appropriate method of extinguishing the fire may be to use copious quantities of water. This would have an overall cooling effect on the fire even though the water may react with the dangerous goods involved.

6.1.5 Ships are equipped with a number of dual purpose spray/jet nozzles as required by SOLAS. Most EmS FIRE SCHEDULES recommend that the nozzles be set to spray when used to fight fires. Water-spray may also be achieved by using water jets from some distance. This method of producing water-spray is generally recommended. However, it is dangerous to direct a water jet onto the fire at close range because this could result in the spread of burning material.

6.1.6 The term "copious quantities of water" used within the EmS FIRE SCHEDULES refers to the minimum total quantities of water provided for optimal fire-fighting using four jets of water, as required by SOLAS regulation II-2/4. The master and crew should know the practical limitations that may be encountered at specific stowage locations in this respect.

6.1.7 Following the advice "use of copious quantities of water" or "water spray from as many hoses as possible" may interfere with the safety of the ship with regard to the ship's stability. Stress forces on the hull due to increased quantities of water in the ship should be considered.

**6.2 Fixed Gas Fire-extinguishing Systems**

6.2.1 If a fixed gas fire-extinguishing system is used for incidents under deck, all hatches and vent dampers should be closed and ventilation shut-off before the system is activated. If

smoke is seen coming from around the hatches, the leaks should be sealed with any suitable material available.

6.2.2 The majority of the fixed gas fire-extinguishing systems use carbon dioxide (CO<sub>2</sub>), but some use nitrogen (N<sub>2</sub>) as the extinguishing medium. The instructions on board should be followed. The fire control plan will sometimes specify a given volume of gas to be applied to a given space. No advantage will be gained by exceeding this volume of gas where burning dangerous goods are involved.

6.2.3 It is important to realise that it will take an appreciable time for the space to cool after the fire has been extinguished. Therefore it would be extremely dangerous to reopen the hatches since the extinguishing gas would escape and air would enter the space again, thus allowing the fire to re-ignite. The ships. on-board instructions for such cases should be followed.

6.2.4 Fixed gas fire-extinguishing systems are not effective against all fires. EmS FIRE SCHEDULES may contain specific information in this regard.

### **6.3 Fixed pressure water spraying systems**

6.3.1 In some ships (e.g. ro/ro ships and car ferries), some cargo spaces may be fitted with a water drencher or spray system instead of a fixed gas fire-extinguishing system. There will be instructions on board which should be followed.

6.3.2 A closed cargo space should be ventilated to clear it of smoke and toxic gases after the fire has been extinguished and the space has cooled. The ventilation equipment should be of a certified safe type for smoke removal. Evidence that the space is cooling down can be obtained by monitoring adjacent bulkheads and decks. Thereafter, a fire-fighting team should look for any small remaining fires and inspect the surrounding cargo. After the fire has been extinguished, the cargo should be kept under surveillance until its normal temperature is reached.

## **7. DANGEROUS GOODS EXPOSED TO FIRE**

### **7.1 Rupture and Cooling**

7.1.1 Where possible, packages should be removed from the vicinity of the fire. In general, heated material will expand thus needing more volume and creating pressure in the package. This will affect the integrity of the package which could lead to rupture and dispersal of the contents. Effective cooling can lower the possibility of rupture.

7.1.2 Where there is a danger that heat will have already started to cause a chemical or physical change to the dangerous substance, packages should not be moved. Care should always be exercised, for example, with those substances liable to polymerise, as this reaction may continue for a long time after the removal of the heat source. Provided no discharge or

pumping overboard problem arises, cooling should continue for many hours after the fire has been extinguished. After heat evolution has ceased, cooling with water may be stopped. A careful watch should be kept on the stability of the ship.

7.1.3 The EmS FIRE SCHEDULES advise that a number of dangerous goods should be removed if there is a likelihood of their involvement in a fire. However, where full or nearly full cargo transport units are involved, such guidance may be impractical. In that case, the advice should be taken to indicate that the goods are particularly dangerous. Personnel on board should fight the fire and cool nearby cargo as far as possible. It should be borne in mind that some heated dangerous goods may have already damaged the packaging or may explode during handling. Consequently, moving or jettisoning burning cargo should only be attempted with utmost caution.

## **7.2 Spillage**

7.2.1 It should be remembered that leakage of dangerous goods can be very dangerous for the crew and for the ship. Fire and explosion can rupture nearby packages or tanks, creating a spillage.

7.2.2 If a leak is discovered, the hazards associated with that leak should be ascertained immediately. In cases involving leaks of flammable liquids or flammable gases (class 3 and class 2.1 labels respectively), the crew should withdraw to a well protected position. Air-vapour and air-gas mixtures are liable to explode and such an explosion may injure crew members and damage the ship.

7.2.3 Many toxic gases are odourless and colourless. A number of liquids will produce toxic vapours if exposed to heat. In an emergency, the ship should be manoeuvred to keep the bridge, living quarters and crew up wind as far as possible.

7.2.4 The EmS SPILLAGE SCHEDULES should be consulted when dealing with a leakage.

## **8 PERSONAL PROTECTION**

### **8.1 Ship's Personnel**

8.1.1 Many vapours and gases of dangerous goods produced by a fire are hazardous to health. In the case of fire, the use of a firefighter's outfit and self-contained breathing apparatus is essential. Only trained personnel should use this equipment which should be well maintained. Particular attention should be given to ensuring that toxic vapours or fumes do not penetrate occupied areas of the ship (e.g. bridge, living quarters, machinery spaces, working areas, etc.).

8.1.2 According to the ship's fire emergency plan, ventilation systems to living and working spaces should be shut-off, closed and secured to reduce the possibility of vapours, dusts, and gases from penetrating these areas.

## **8.2 Fire-fighting Team**

8.2.1 Chapter II-2 of SOLAS requires firefighter.s outfits, full chemical protective suits and self-contained breathing apparatus to be readily available on board. Masters are reminded that personnel will need regular training in the use of self-contained breathing apparatus and that special attention should be given to ensure that face masks fit satisfactorily at all times.

8.2.2 Self-contained breathing apparatus is essential for fire-fighting because dangerous goods on fire produce various substances hazardous to health. Handling water jets from some distance or cooling of heated cargo may not require the use of self-contained breathing apparatus. However, decisions not to use self-contained breathing apparatus should be undertaken carefully and on a case-by-case basis.

8.2.3 Fire-fighting outfits offer only limited protection from dangerous goods. Fire-fighting outfits are not chemical suits. Chemical protective clothing is designed to protect against specific properties of chemicals. In general, there will be no such thing as a single type chemical protective suit on board. Therefore, contact with dangerous goods should be avoided. Chemical protective clothing is not resistant to fire or heat.

## **10. SPECIAL NOTES on CLASSES of DANGEROUS GOODS**

### **10.2 Gases - Class 2**

10.2.1 Gases are substances usually transported in cylinders, flasks, portable tanks, aerosol dispensers and bottles under varying degrees of pressure. The gases may be flammable, toxic or corrosive and may be compressed, liquefied or refrigerated.

10.2.2 Gases will not start burning at the valve, unless there has been an ignition source nearby (e.g. fire or heat). The location of the burning gas needs to be identified because it may be the heart of the fire. The heating of the receptacle is the most serious danger because of the possibility of rupture, rocketing or explosion. In the event of a fire, aerosol receptacles containing gas should be liberally sprayed with water to keep them as cool as possible.

10.2.3 Non-burning leakages from receptacles of flammable gases may give rise to explosive mixtures in air. If a fire caused by the ignition of leaking gas is extinguished within a cargo space before the leak is stopped, accumulation of gas will occur. This will result in an explosive mixture or a toxic or suffocating atmosphere. The EmS SPILLAGE SCHEDULES should be consulted.



10.2.4 Extremely low temperatures around leakages of some liquefied gases are an additional hazard (other than flammability and toxicity). Emergency teams should avoid contact with such leakages and the immediate vicinity.

#### GENERAL GUIDELINES for FIRE

- Think safety first !
- Avoid any contact with dangerous substances.
- Keep away from fire, smoke, fumes and vapours.
- Sound the fire alarm and start fire-fighting procedures.
- Keep the bridge and living quarters up wind if possible.
- Locate stowage position of cargo that is burning or evolving smoke.
- Identify cargo.
- Obtain UN Numbers and the EmS FIRE SCHEDULE of the dangerous goods involved.
- Consider which measures of the EmS FIRE SCHEDULE are applicable and should be followed.
- Check if other dangerous goods may potentially be involved in the fire and identify the relevant EmS FIRE SCHEDULE.
- Wear suitable protective clothing and self-contained breathing apparatus.
- Be prepared to use the Medical First Aid Guide (MFAG).

11.18.3 EmS Spillage Schedule

S – U

**GASSES (FLAMMABLE, TOXIC or CORROSIVE)**

<p><b>General Comments</b></p>	<p>Spaces and areas where leakages or spillages have occurred should be evacuated downwind immediately.</p> <p>Take care: Flames may be invisible. Leaking gas may be extremely cold.</p> <p>Measures should be taken to prevent leaking gases from penetrating into any other part of the ship. Bear in mind that some gases are heavier than air or may otherwise accumulate in lower or nonventilated parts of the ship. Ensure that there is no smoking or any other open fire on board unless the leak has been closed and all spaces have been ventilated. Particular attention should be taken in order to prevent gases drifting into occupied areas of the ship, e.g. living quarters, machinery spaces, working areas.</p> <p>Wear protective clothing suitable for gas protection and self-contained breathing apparatus.</p> <p>Avoid all sources of ignition (e.g. naked lights, unprotected light bulbs, electric handtools, friction). Wear non-sparking footwear.</p> <p>Even short inhalation of small quantities of gas can cause breathing difficulties.</p> <p>Keep clear of evolving gases. Avoid all skin contact.</p> <p>Let <u>spilt liquified gas</u> evaporate: When in contact with cold liquified gases, most materials become brittle and are likely to break without warning. Avoid all contact, even when wearing protective clothing. If practicable, protect ship's superstructure with copious quantities of water. Do not direct water jet onto the spill.</p>	
<p><b>Spillage on Deck</b></p>	<p><b>Packages (Small Spillage)</b></p>	<p>Let gas dissipate. Keep clear.</p>

	<b>Cargo Transport Units (Large Spillage)</b>	<p>Let gas dissipate. Keep bridge and living quarters upwind.</p> <p>Otherwise, protect crew and living quarters against flammable or toxic gases by using waterspray to drive gases away (water curtain).</p> <p><u>Spilt liquified gas:</u> Use water-jets from as far as practicable to accelerate evaporation, not directing them straight onto the spill.</p>
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<b>S – U</b> <b>GASSES (FLAMMABLE, TOXIC or CORROSIVE)</b>		
<b>Spillage Under Deck</b>	<b>Packages (Small Spillage)</b>	<p>Do not enter space.</p> <p>Provide adequate ventilation.</p> <p>Where a ventilation system is used, particular attention should be taken in order to prevent gases penetrating into other areas of the ship.</p> <p>Let gas evaporate. Keep clear. Radio for expert ADVICE.</p> <p>Check atmosphere before entering (toxicity and explosion hazard).</p> <p>Do not enter space without self-contained breathing apparatus.</p>

		<p>Do not enter space. Provide adequate ventilation.</p> <p>Where a ventilation system is used, particular attention should be taken in order to prevent gases drifting into other areas of the ship.</p> <p>Keep bridge and living quarters up wind.</p> <p>Otherwise, protect crew and living quarters against flammable or toxic gases by using waterspray to drive gases away (water curtain).</p> <p>If practicable, use water spray to avoid ignition of flammable gases in the space.</p> <p>Radio for expert ADVICE.</p> <p>Check atmosphere before entering (toxicity and explosion hazard).</p> <p>Do not enter deck without self-contained breathing apparatus.</p>
	<b>Cargo Transport Units (Large Spillage)</b>	
<b>Özel Durumlar</b>		

## 12 SPECIAL NOTES on SPECIFIC DANGEROUS GOODS' CLASSES

12.1 Based on the specific properties of the individual dangerous goods listed under one UN Number, experts have allocated the substances, articles and materials to EmS SPILLAGE SCHEDULES. The allocation has not been based on the classification and labelling of the substances only. However, to help the mariner who is used to the handling and labelling of packaged dangerous goods to understand the advice given in the EmS SPILLAGE SCHEDULES, this introduction based on classification properties of substances is given..

### 12.3 Gasses - Class 2

12.3.1 A release of a flammable gas (class 2.1) is the preliminary step leading to a potential Vapour Cloud Explosion (VCE). For a blast to take place, the substance has to mix with air in a quantity that will allow the mixture to form a cloud. As soon as a friction (electrostatic potential) lies within the explosive range and encounters an ignition source, a flash fire, a deflagration or, sometimes, even a detonation may occur with devastating consequences. In dealing with gas leakages, let the gas evaporate and drift away. Keep away all sources of ignition. Water -spray could reduce the ignition potential of the cloud (see SPILLAGE SCHEDULE S-U).



## **DANGEROUS CARGO HANDLING GUIDE**

12.3.2 Non-toxic, non-flammable gases (class 2.2) may displace oxygen, creating a suffocation hazard. Ventilation of all areas concerned is important (see SPILLAGE SCHEDULE S-V).

12.3.3 Toxic gases (class 2.3) when released may fill an area of the ship or a compartment with a toxic atmosphere. Therefore, it is important to shut-off, close and secure all ventilation supplying the accommodations, machinery spaces and bridge to protect against such gases. Self-contained breathing apparatus is essential for the emergency team (see SPILLAGE SCHEDULE S-U).

12.3.4 Liquefied gases can cause the additional hazard of very low temperatures around the point of leakage. Such a leakage will be particularly dangerous when the leakage is in the liquid phase from a container where very low temperatures will be experienced. The emergency team should avoid contact with liquefied gases if at all possible.

12.3.5 Oxidizing gases can react violently with a number of organic materials. These reactions can generate heat, produce flammable gases and are liable to ignite combustible materials.

### **GENERAL GUIDELINES for SPILLAGE**

- Think of safety first !
- Avoid any contact with dangerous substances. Do not walk through spilled liquids or dust (solids).
- Keep away from vapours or gases.
- Sound alarm.
- Keep the bridge and living quarters up wind if possible.
- Wear full protective clothing resistant to chemical attack and self-contained breathing apparatus.
- Locate stowage position of leaking cargo.
- Identify cargo.
- Obtain UN Numbers and the EmS SPILLAGE SCHEDULE of dangerous goods involved.
- Consider which measures of the EmS SPILLAGE SCHEDULE are applicable and should be followed.

- Be prepared to use the Medical First Aid Guide (MFAG).
- Contact the designated person of the company responsible for the operation of the ship to obtain expert advice on dangerous goods emergency response measures.

Precaution: Contamination of the skin with any dangerous goods should be removed and washed immediately.

### 11.19 Dangerous Cargo Handling Guide Additional Cargo Notification (When Necessary )

The cargo notification, which is not specified in the Dangerous Cargo Guide in force at the facility and is planned to be handled at the facility, is made to the relevant Port Authority by filling out the following form. According to the code to which the load in question is subject and the attached safety data sheet, the coastal facility is informed that there is equipment to be found in the facility, first aid, fire, safety, etc. to be obtained. must show that all necessary precautions have been taken and necessary updates have been made in the Dangerous Goods Handling Guide and other procedures.

Proper Shipping Name	
UN Number and Class ID/Groups in the Characteristic Table, if any	

The Type of Cargo and Code	Dangerous Liquid Bulk Cargoes (Petroleum and petroleum Derivatives-MARPOL Attachment-1 )	
	Dangerous Liquid Bulk Cargoes (Chemical and Similar-IBC Code)	
	Dangerous Liquid Bulk Cargoes (Liquefied Gas- IGC Code)	
	Packed Dangerous Goods (IMDG Code)	
	Dangerous Solid Bulk Cargoes (IMSBC Code)	

Appendix: Safety Data Sheet ( SDS )



## DANGEROUS CARGO HANDLING GUIDE

Dangerous Goods Safety Advisor

Coastal Facility Officer

Name/Surname/Signature

Name/Surname/Signature

## 12. ABBREVIATIONS

**CTU:** Cargo Transport Unit

**IMDG:** International Maritime Dangerous Goods Code

**IMO:** International Maritime Organization

**UN:** United Nations

**AFAD:** Disaster and Emergency Management Presidency

**SDS:** Safety Data Sheet

**IGC Kod:** International Code for the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk

**IBC Kod:** International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk

**IMSBC Kod:** International Maritime Solid Bulk Cargoes Code

## 13. DEFINITIONS

**Port Facility:** It is the port where ships dock to receive or unload cargo.

**Certificate of Conformity:** It means a document issued by the Administration or on behalf of the Administration in accordance with the relevant laws for the ship's structure and equipment certifying that the ship's structure and equipment are suitable for dangerous cargo to be transported on board.

**Dangerous Cargoes:** Within the scope of the following documents, packaged means any of the following cargoes, whether or not they are transported in bulk, bulk packaged or bulk:

- Oils covered by Annex I of MARPOL 73/78;
- Gases covered by Law for the structure and equipment of ships carrying Liquefied Gases in bulk;
- Toxic liquids/chemicals, including waste, covered by law for the construction and equipment of ships carrying MARPOL 73/78 Annex II and Bulk Hazardous Chemicals;
- Safety practices for solid bulk cargoes (BC Code) chemical hazards in bulk (MHBs) and solid materials in bulk containing solid hazardous materials, including wastes covered by group B annexes in the law;
- Harmful substances in packaged form (covered by Annex III of MARPOL 73/78); and - dangerous goods, materials or substances (covered by the IMDG Code).

**Document of Conformity:** It means a document issued by or on behalf of the Administration to a ship carrying dangerous goods in solid or packaged form in bulk under the SOLAS regulation II-2/19.4, which constitutes evidence that the structure and equipment comply with the requirements of the regulation.

**Handling:** Unloading of incoming dangerous cargo to a coastal facility, loading it from a coastal facility to a ship, storing it, loading it from tanks to land tankers or loading it from land tankers to tanks are operations.

## **14.PRESENTATION**

This Guide applies to the entry and storage of dangerous goods in port areas, both on board and on the shore. These are intended to apply to all ships visiting a port, regardless of their flag. To assist the persons and institutions that prepare national legal requirements to ensure that these requirements are made as effective as possible by specifying all possible situations of dangerous goods located in cargo areas, but without establishing validity for exceptional cases.