

BELDEPORT



DANGEROUS GOOD SAFETY GUIDE



PREPARATION DATE: 01.02.2021
(Refer to the Revised Revised Page)

UĞUR KILIÇ

**SIGNATURE
SEAL**

REVISION PAGE

Ser Nu	Revision Nu	Revision Contents	Revision Date	Revision Autor	
				Name Surname	Signature
1	01	Regulation of content	22.10.2019		
2	02	Regulation of content	15.12.2019		
3	03	Regulation of content	03.08.2020		
4	04	Regulation of content	01.02.2021		
5	05	Regulation of content	12.09.2022		
6	06	Guide name change	12.09.2022		
7	07	Regulation of content	13.01.2023		
8	08	Contact data change	30.03.2023		
9	09	Contact data change	01.09.2024		
10	010	Data information, Sheet crane added	01.08.2025		

INDEX

1. ENTRY	1
1.1 General information of the port facility	2
1.2 Loading/unloading, handling and storage procedures for dangerous cargoes handled and temporarily stored at the port facility	4
1.2.1 General.....	4
1.3 Procedure for Safe Handling Operation of Packed Dangerous Cargoes	5
1.3.1 Container.....	5
1.3.2 Dangerous cargoes in packaged form	6
1.3.3 Requirements	6
1.3.4 Documentation.....	8
1.3.5 Supervision	8
1.3.6 Information for operational and emergency purposes... ..	8
1.3.7 General handling precautions	9
1.4 Operational procedure of safe handling of bulk solid dangerous cargoes.....	10
1.4.1 Solid bulk dangerous cargoes	10
1.4.2 Requirements.....	11
1.4.3 Documentation	13
1.4.4 Responsibility for compliance.	13
1.4.5 Emission of harmful dusts	13
1.4.6 Emission of dangerous vapor/oxygen deficiency.....	13
1.4.7 Emission of explosive dusts.....	14
1.4.8 Spontaneously combustible substances and substances that react with water.....	14
1.4.9 Oxidizing substances	14
1.4.10 Incompatible materials.....	14
1.4.11 Cargo which can be handled at our facility in accordance with IMSBC CODE	14
2. RESPONSIBILITIES.....	16
2.1 Responsibilities of the relevant person of the goods	16
2.2 Responsibilities of the port facility operator	17
2.3 Responsibilities of the ship's master	18
2.4 Responsibilities of the Dangerous Goods Safety Consultant.....	19
2.5 Responsibilities of 3rd party, cargo / ship broker etc. operating in the port facility	20
3. POLICIES/APPLIED RULES AND MEASURES TO BE FOLLOWED BY PORT FACILITY.....	20
3.1 Berthing.....	20
3.2 Examination.....	20
3.3 Identification, packing, marking, labelling or placarding and certification.....	21
3.4 Safe handling and segregation.....	21
3.5. Loads Covered by Imdg Code.....	22
3.6. Cargoes Covered by the IMSBC Code.....	22
3.7 Transport of dangerous loads in the port area and between adjacent ports.....	24
3.8 Other ship-specific provisions.....	24
3.9 Emergency procedures.....	25
3.6 Emergency information.....	25
3.11 Fire precautions.....	26
3.12 Fire fighting.....	26
3.13 Environmental precautions.....	27
3.14 Pollution combating.....	27
3.15 Reporting of incidents.....	27
3.16 Inspections.....	28
3.17 Hot work and other repair or maintenance work.....	28

3.18	Entry into confined or enclosed spaces.....	29
3.19	Fumigation of warehouses, sheds or cargo transport units.....	29
3.20	Contaminated wastes.....	29
3.21	Alcohol and drug abuse.....	29
3.22	Weather conditions	30
3.23	Lighting	30
3.24	Handling equipment.....	30
3.25	Protective equipment	31
3.26	Explosives	31
3.27	Signals.....	32
3.28	Communications.....	33
3.29	Areas.....	33
3.29.1	Dangerous cargo areas	33
3.29.2	Container stacking areas / permanent ways/ lorry parking area.....	33
3.29.3	Fumigation areas	34
3.29.4	Special areas for damaged dangerous cargoes and wastes contaminated with dangerous cargoes.....	34
3.29.5	Repairing/cleaning facilities.	34
3.29.6	Reception facilities.....	34
3.30	Training.....	34
4.	CLASSIFICATION OF DANGEROUS GOODS, HANDLING, LOADING/UNLOADING, HANDLING, SEPARATION, STACKING AND STORING.....	35
4.1	Classification of Dangerous Goods.....	35
4.1.1	Types of Dangerous Goods.....	35
4.1.2	Classification of Dangerous Goods	36
4.2	Dangerous Goods Packing and Packages.....	40
4.3	Dangerous Goods Marking, Labels, Placards	43
4.3.1	Labels	43
4.3.2	Placards.....	43
4.4	Packaging and Approval Marking	43
4.4.1	Packing Groups, Classifying Criteria	54
4.4.2	UN Packaging and Approval Marking	54
4.5	Separation tables on ship and port according to the class of dangerous goods.....	55
4.5.1	Principles of segregation and stowage.....	55
4.5.2	IMDG Code segregation, stowage and Dangerous Goods list	56
4.6	Separation distances and separation terms for hazardous materials applicable storage at storage area.....	58
4.6.1	Ayrı Depolama	58
4.6.2	Segregation within the Cargo Transport Units.....	59
4.6.3	Segregation in Port Areas.....	59
4.7	Dangerous Goods Documentation.....	61
4.7.1	Documents required for dispatching Dangerous Goods.....	61
4.7.2	Dangerous Goods Declaration Ordinance	61
4.7.3	Container/Vehicle Packing Certificate	62
4.7.4	Multimodal Model of the Transport Document	63
5.	HANDBOOK OF DANGEROUS GOODS.....	65
6.	PROCEDURES FOR THE OPERATION	66
6.1	Prosedure of ships carrying dangerous goods safely berthing, loading/unloading, shelter or anchorage during the day and at night.....	66
6.2	Procedure of according to the seasonal conditions additional measures that	

	loading/unloading, limbo operation of dangerous goods should be taken by port facilities.....	66
6.3	Procedures on keeping any inflammable, combustible and explosive materials away from operations which cause or are likely to cause sparking and abstaining from operating any tools, apparatus or device which cause or are likely to cause sparking in areas where hazardous materials are handled, stowed and stored.....	66
7.	DOCUMENTATION, CONTROL AND RECORD	67
7.1	Procedures regarding to all necessary documents, information and certification relating to dangerous substances and their procurement and control by the relevant persons.....	67
7.2	Procedures of keeping a regular and accurate current list of all hazardous substances in the coastal facility area and other relevant information.....	68
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 goods in the certified and proper package, container or cargo unit in a safety way and reporting of inspection results.....	69
7.4	Procedures related to procurement of the Hazardous materials safety information sheets (SDS).....	70
7.5	Procedures for records and statistics of dangerous goods.....	70
8.	EMERGENCY SITUATION, EMERGENCY PREPAREDNESS AND RESPON.....	70
8.1	Response procedures for hazardous substances that are dangerous for life, property and/or environment and hazardous situations involving hazardous materials.....	70
8.2	Information on resource, capability and capacity of the coastal facilities regarding to respond to emergencies.....	73
8.3	Regulations related to the the first aid for accidents involving dangerous substances (first aid procedures, first aid resources and capabilities and so on.).....	73
8.4	On-site and off site notifications required to be made in case of emergency.....	74
8.5	The procedures for reporting accidents.	75
8.5.1	Communication.....	75
8.5.2	Reports.....	75
8.6	Coordination, support and cooperation method with authorities.....	76
8.7	Emergency evacuation plan for the evacuation of the ship and vessels from the coastal facility in case of emergency.....	76
8.7.1	Preparation for emergency seperation system.....	76
8.7.2	Realization of emergency separation.....	77
8.7.3	After emergency separation.....	77
8.8	Procedures for handling and disposal of the damaged hazardous goods and wastes contaminated with hazardous goods.....	78
8.8.1	Waste Collecting and Handling	78
8.8.2	Waste disposal.....	78
8.8.3	Contaminated Packages.....	78
8.9	Emergency drills and their records.	79
8.9.1	Implementation of Practices;.....	79
8.9.2	Practice Scenarios;.....	79
8.9.3	Emergency Practices which will be performed within the facility;	79
8.10	Information on fire protection systems.	80
8.11	Procedures for approval, inspection, testing, maintenance and availability of	

	the fire protection system.....	80
8.11.1	Fire-Protection Water Tanks and Fire-Protection Water	80
8.11.2	Fire-Protection Water Pumps	80
8.11.3	Sprinkler System	80
8.11.4	Fire Protection Hydrant Installation	81
8.11.5	Portable Extinguishers	81
8.11.6	Protection against freezing.....	82
8.12	The measures to be taken in case of failure on fire protection systems.....	82
8.13	Other risk control equipment.....	83
9.	OCCUPATIONAL HEALTH AND SAFETY.....	83
9.1	Occupational health and safety measures.....	83
9.1.1	Risk assessment	83
9.1.2	Emergencies	85
9.1.3	Workers' education and informing them.....	85
9.2	Information about the personal protective clothes and procedures to use them.....	86
10.	OTHER POINT.....	87
10.1	Validity of the Hazardous Substances Compliance Certificate.	87
10.2	Responsibilities of the Dangerous Goods Safety Consultant	87
10.3	Matters for carriers of the hazardous substances arriving/leaving coastal facility 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.).....	87
10.3.1	Packaged dangerous cargoes and bulk dangerous cargoes (liquid or solid).....	87
10.3.2	Necessary certificates.....	87
10.3.3	Speed Limit in Port Facility.....	88
10.4	Matters for carriers of the hazardous substances arriving/leaving coastal facility by sea (matters on day/night signals to be shown by ships carrying hazardous goods and vessels, cold and hot work procedures in ships and so on.).....	88
10.4.1	Arrival by Sea	88
10.4.2	Departure by Sea.....	89
10.5	Additional points will be added by the port facility.....	89
10.5.1	Training.....	89
10.5.2	Training content.....	90
10.6	Accident Prevention Policy.....	90
10.7	Hot Work Procedure	91
10.8	Responsibilities of Personnel in Operation.....	95
10.8.1	Operation Officer	95
10.8.2	Shift Supervisor	96
10.8.3	HSE Responsibility.....	97
10.9	Safe Handling of Dangerous Goods Operation Procedure Checklist	99
10.10	EmS (Emergency Procedures for Vessels carrying Dangerous Goods) and MFAG (Medical First Aid Guide)	100
10.10.1	EmS	102
10.10.2	MFAG	102
11.	ANNEXES.....	103
11.1	General Site Plan of Port Facility.....	103
11.2	General View Photos of Port Facility.....	104

11.3	Emergency Contact Points and Contact Information.....	105
11.4	General Situation Plan of Areas in which Hazardous Goods are Handled.....	106
11.5	Fire Plan of Areas where Hazardous Cargo Handling.....	107
11.6	General Fire Plan of the Facility.....	108
11.7	Emergency Plan.....	109
11.8	Plan of Emergency Gathering Places.....	110
11.9	Emergency Management Scheme.....	111
11.10	Dangerous Goods Handbook.....	112
11.11	Leakage Areas and Equipment for CTU and Packages, Input/Output Drawings.....	113
11.12	Inventory of Port Service Ships	
11.13	Port Authority administrative boundaries, anchor points and maritime coordinates of harbour pilot landing/boarding points.....	115
11.14	Emergency Response Equipment Against Marine Pollution in Port Facility...	116
11.15	Personal protective equipment (PPE) usage map.....	117
11.16	Dangerous Goods Incidents Notification Form.....	118
11.17	Control Results Notification Form for Dangerous Cargo Transport Units (CTUs).....	119
12.	ABBREVIATIONS	120
13.	PRESENTATION	121
14.	DEFINITIONS	122

	Document No	Release Date	Revised No	Revised Date	Page Number
					1
	 DANGEROUS GOOD SAFETY GUIDE 				

1. ENTRY

- 1.1 The entry and presence of dangerous cargoes in port areas and any consequential handling should be controlled to ensure the general safety and security of the area, the containment of the cargoes, the safety of all persons in or near the port area, and the protection of the environment.
- 1.2 The safety of life at sea and the safety and security of a ship, its cargo and its crew in a port area are directly related to the care which is taken with dangerous cargoes prior to loading or unloading, and during their handling.
- 1.3 These Recommendations are confined to dangerous cargoes which are in a port area as part of the transport chain. These Recommendations do not apply to dangerous substances which are used in a port area or are for general storage in the port area, but Governments may wish to control such use and storage by national legal requirements. Should a substance covered by either of these exclusions subsequently be shipped, these Recommendations should then be applied, even though the substance is already in the port area.
- 1.4 An essential pre-requisite for the safe transport and handling of dangerous cargoes is their proper identification, containment, packaging, packing, securing, marking, labelling, placarding and documentation. This applies whether the operation takes place in a port area or at premises away from a port area.
- 1.5 Although inland, port and maritime elements are included in the general transport chain, it is very important that the persons responsible for the matters mentioned in 1.4 take all kinds of precautions and that all relevant information is passed to those included in the transport chain and to the final consignee. Attention should be paid to the possible different requirements for different modes of transport.
- 1.6 The safe transport and handling of dangerous cargoes is based on correct and precise application of regulations for transport and handling of the cargoes and depends on appreciation by all persons concerned of the risks involved and on the full and detailed understanding of the regulations. This can only be achieved through appropriate training and retraining of the persons concerned.
- 1.7 The codes and guides are under constant review and are regularly revised. It is very important to use only current versions. The contents of these codes and guides have been repeated in these Recommendations only to the extent necessary.
- 1.8 In preparing this guide IMDG CODE, ERG 2012 and IMO 1216 CR. documents have been applied to and the informations are used.

1.1 Port facility data sheet

The general information about the port facility is as follows:

	Document No	Release Date	Revised No	Revised Date	Page Number
					2
	DANGEROUS GOOD SAFETY GUIDE				

1- PORT FACILITY DATA SHEET

1	Name / title of port facility operator	MED LOJİSTİK A.Ş.		
2	Contact details of the property operator (Address, telephone, fax, e-mail and web page)	Diliskelesi Mah. Liman Cad. No:13/8 Dilovası/KOCAELİ Tel : 0262- 754 88 31-32 Fax: 0262- 754 88 70 e-mail : ugur.kilic@beldeport.com.tr web : www.beldeport.com		
3	Name of port facility	BELDEPORT		
4	Province where port facility is located	Kocaeli		
5	Contact details of port facility (Address, telephone, fax, e-mail and web page)	Diliskelesi Mah. Liman Cad. No:13/8 Dilovası/KOCAELİ Tel : 0262- 754 88 31-32 Fax: 0262- 754 88 70 e-mail : ugur.kilic@beldeport.com.tr web : www.beldeport.com		
6	Geographical area of the port facility	Marmara		
7	Port Authority and contact details of the facility	Kocaeli Bölge Liman Başkanlığı Tel: 0262- 528 37 54 Fax: 0262- 528 47 90		
8	Mayorship and contact details of the port facility	Dilovası Belediye Başkanlığı Tel: 0262- 754 88 88 Fax: 0262- 754 50 66		
9	Name of the free zone or organized industrial zone where the facility is located	X		
10	Validity date of coastal facility operation permit/ temporary operation permit certificate	19.10.2025		
11	Activity status of the facility (X)	Kendi yükü ve ilave 3. Şahıs ()	Kendi yükü ()	3. şahıs (X)
12	Name and surname of the facility manager, contact details (telephone, fax, e-mail)	Uğur KILIÇ Tel: 0534 088 1213 mail : ugur.kilic@beldeport.com.tr		
13	Name and surname of the person responsible for the dangerous goods operations of the facility (Telephone,	Cihan AYDIN 0535 6614611 E-posta: cihan.aydin@beldeport.com.tr		

	Document No	Release Date	Revised No	Revised Date	Page Number
					3
	DANGEROUS GOOD SAFETY GUIDE				

	fax,e-mail)	
14	Name and surname of the facility's dangerous goods safety consultant, contact details (Telephone, fax, e-mail)	Nihat Akçakaya tel: 90 555 844 18 98 e-posta: nihat.akcakaya@dgrlogistic.com
15	Marine coordinates of the facility	400 46' 18" N - 0290 30' 55" E
16	Types of dangerous goods handled on site (MARPOL Ek-I, IMDG Code, IBC Code, IGC Code, IMSBC Code, Grain Code,TDC Code goods, asphalt/bitumen and scrap goods)	IMDG Code, IMSBC Code class 2,3,4,5,6.1,8,9 are accepted.
17	Ship types	Container ship, Bulk Carrier, Ro-Ro, General Cargo
18	Distance to the main road (Kilometer)	2 km
19	Distance to the railway(kilometer) and railway connection	Connection to be provided,
20	Name of the nearest airport and distance to the resort (kilometer)	Sabiha Gökçen / 25 km
21	Cargo handling capacity of the facility (Tones/Year;TEU/Year; Vehicle/Year)	2.000.000 Mton general cargo/bulk, 450.000 TEU container, 200.000 CEU vehicle
22	Scrap handling at the facility	No
23	Is there a border gate? (Yes/No)	No
24	Is there a bonded site? (Yes/No)	Yes
25	Cargo handling equipment and capacities	Mobile Harbour Cranes (3 Mobile harbour cranes capacity 144 Tonnes, 1 Mobile harbour crane with 104 tonne) and terminal equipments
26	Storage tank capacity (m3)	X
27	Open storage area (m2)	148.315 m2
28	Semi-enclosed storage area (m2)	X
29	Indoor storage (m2)	1.065 m2
30	Designated fumigation and/or fumigation decontamination area (m2)	Fumigation will not be performed in the facility unless the operation permits. If permitted an appropriate space and amount of space will be created in the facility.
31	Name/title of guidance and tug service provider contact details	ANADOLU KILAVUZLUK A.Ş. (ANKAŞ) Tel: 0262 745 38 10 Faks: 0262 745 38 13 VHF Çalışma Kanalı: CH. 13 SANMAR A.Ş. Tel:0216 458 5900 Faks: 0216 458 5959 E-Mail: info@sanmar.com.tr

	Document No	Release Date	Revised No	Revised Date	Page Number
					4
	 DANGEROUS GOOD SAFETY GUIDE				

32	Is a security plan created? (Yes/No)		Yes		
33	Capacity of Waste Reception Facility (This section will be arranged separately according to the wastes accepted by the facility)		Waste Type		Capacity (m³)
34	Dock / Pier etc. Properties of fields				
Dock/Pier No	Length (meters)	Width (meters)	Max. water depth (meters)	Minimum water dept (meters)	Largest vessel tonnage to berth (DWT or GRT-meter)
1	450	200	16.5	16.5	Post Panamax
Name of pipeline (if available)		Number	Length (meters)	Diameter (inches)	
		X	x	X	

1.2 Loading/unloading, handling and storage procedures for dangerous cargoes handled and temporarily stored at the port facility

1.2.1 General

1.2.1.1 Cargoes defined as class 7 radioactive materials, class 6.2 infectious substances in the IMDG Code and some cargoes belonging to packing group I shall not be taken into the port facility. These cargoes are called dangerous cargoes which are not accepted and they are operated as transit cargoes if authorized by the competent authority. Loading and unloading is done in a special area in the port facility and they are shipped away without waiting in the port facility. Cargoes which are wrapped, packed or prepared in the form of bale/bunch/truss within the scope of MARPOL Annex-I and IMDG codes general cargoes and project cargoes are handled. All kinds of bulk cargo, mines, cement, clinker, fertilizers containing ammonium nitrate, all kinds of solid bulk cargoes of this type within the scope of IMSBC code and all kinds of cereals shipped as bulk cargo within the scope of Grain code are handled at the cereal port facility.

1.2.1.2 Fulfilment of the conditions specified below will be ensured as regards handling the dangerous cargoes coming to the port facility, keeping them temporarily at the port facility, making their stowage and segregation and storage for safety of the port facility, employees and ships at the port facility.

1.1.1.2.1 The planning dept. shall inform the Operation, HSE, DGSA and other relevant persons at least 1 day prior to the acceptance of the dangerous cargoes to the shore facility. (The decision to inform the routine cargoes accepted to the port may be made by the planning)

1.2.1.2.2 Information content for the dangerous cargoes to be accepted to the port;

1. Risk arising from dangerous cargo
2. Interaction with dangerous cargoes existing at the port facility,

	Document No	Release Date	Revised No	Revised Date	Page Number
					5
	 DANGEROUS GOOD SAFETY GUIDE 				

3. Interaction with loads planned to be accepted in the near future,
4. Conditions for stowage
5. Conditions for segregation
6. Requirement of materials and equipment with respect to emergency response
7. Sufficiency of emergency response equipments

The issues are handled within the scope of the current IMDG CODE

1.2.1.2.3 If a decision has been taken for the acceptance of dangerous cargoes after the notification, Management, operation, storage, security, Emergency response units are informed and the preparation and acceptance process is initiated.

1.2.1.2.4 If it is required to notify the Port authority, the situation shall be notified to the Port authority in writing by specifying the reasons.

1.3 Procedure for the Safe Handling of Packaged Dangerous Materials

1.3.1 Container

1.3.1.1 The container carrying dangerous materials subject to the customs regime is declared to the Customs Administration and according to the declaration the Customs administration; RED line for physical examination and document control, YELLOW line for checking the accuracy of declarations and annexes without the need for physical examination, BLUE line, where declarations and documents will be checked later, GREEN line where document control and the goods are not physically examined and determines whether to carry out FULL DETECTION, PARTIAL INSPECTION, EXTERNAL INSPECTION

1.3.1.2 The customer or his representative agent shall request to the port (registration office, commercial tariff unit, CFS office) and service order will be formed. The opening and closing minutes shall be signed by the Customs Inspection Officer and a request shall be made to the CFS office with this report and declaration.

1.3.1.3 If the Material Safety Data Sheet (SDS) of the Dangerous Materials in the Container does not exist, it is requested from the Customer or his representative. Dangerous materials cannot be processed if SDS Form cannot be obtained. SDS Form is examined by Operaiton, HSE / TMGD to ensure that necessary preventive measures are taken and that teams are assigned.

1.3.1.4 The Container requested in accordance with the Service Order established by the CFS office shall be brought to the CFS site.

1.3.1.5 The container is loaded into the Port Vehicle at the stacking site and brought to the CFS site and lowered to the planned location. The container inspection is completed under the supervision of Inspection officer, Customer / representative, Port CFS operation authority at the CFS Field and the opening and closing minutes are issued.

1.3.1.6 During the inspection and sampling procedures, the waste (packaging package papers, plastics, fixing materials, etc.) and leaks to be formed from the Container containing Dangerous Material are intervened and cleaned by the teams in protective clothing. The wastes are sent to the waste collection center for disposal.

1.3.1.7 Container is transferred to the stacking area after the process is completed.

	Document No	Release Date	Revised No	Revised Date	Page Number
					6
	 DANGEROUS GOOD SAFETY GUIDE 				

1.3.1.8 Containers containing Dangerous Materials shall not be placed in “Temporary storage place closed warehouse” in accordance with Article 77 of the Customs Legislation and shall be taken to general or private warehouses in accordance with the characteristics of these containers.

1.3.2 Packaged Loads

1.3.2.1 Packaged dangerous materials other than the dangerous materials coming in the container shall be loaded / unloaded under tackle as required in our coastal facility.

1.3.2.2 Loading and unloading program will be prepared 1 day before the operation meeting. In this meeting, the equipment, crane, crew, number of postings and docks are determined. The personnel to be employed in the operation shall be informed about the danger of the load and shall be equipped with the necessary protective equipment. Environmental safety is provided by HSE. Personnel will not be employed in the ship hold and on the site without gas measurements.

1.3.2.3 Necessary warnings will be made in order not to make the trucks load more than the load limit and those responsible will pay due necessary attention to this matter.

1.3.2.4 Drivers will be kept at the specified point away from the vehicle during loading and unloading of vehicles. It will be checked that the driver has the necessary protection equipment.

1.3.2.5 Shift supervisor will be responsible for work safety, control of equipment, entry and exit of external persons, safe handling of the load, environmental cleaning and proper control of these works.

1.3.2.6 The working layout will be organized by tallyman, helmsman and the second captain of the ship. The tallyman ensures the loading / unloading according to the approved cargo plan. The responsibility for loading and unloading in accordance with the cargo plan belongs to the tallymans.

1.3.3 Requirements

1.3.3.1 The facility is equipped with water pump with electrical and diesel motor for cooling having connections with water tanks with adequate volume, fire hydrant connected with fire pipes in adequate number/size in required places, fire cupboard, spare energy production devices with adequate power (generators), fire equipments, details of which are provided in Article 8.10 containing fire extinguishing devices consisting of those operating with foam (for fire extinguishing works other than buildings and liquidated gas fires) dry chemical/powder which are fixed/mobile, depending on the capacity of the facility and the location thereof.

1.3.3.2 In accordance with the job descriptions and working areas of the personnel involved in the work and operations of the loading / unloading of dangerous cargoes in the coastal facility will receive training on issues emergency situations (fire, explosion, leakage, etc.) and response, occupational health and safety, ISPS code safety awareness training and security in accordance with Article 10.4

1.3.3.3 Works and operations for damaged cargo handling units or packages containing dangerous materials will be carried out by taking necessary precautions at CFS site. In case of leakage

	Document No	Release Date	Revised No	Revised Date	Page Number
					7
	DANGEROUS GOOD SAFETY GUIDE				

in these cargo handling unit or packages, the related operations shall be carried out in portable leakage pools with a capacity of 40 feet container.

- 1.3.3.4** The IMDG site in accordance with the separation and stacking rules for packaged dangerous materials and containers carrying dangerous materials shall be determined and the temporary storage of such packaged loads and containers shall be carried out in accordance with the separation and stacking rules specified in section via TOS (GullsEye) 4. Necessary fire, environmental and other safety measures will be taken in these areas. If dangerous materials are being stacked or stored in the entire site, the means of access to the cargo transport units containing dangerous goods shall be open and equipment shall be provided to provide emergency facilities and capability to be intervened in the field in a short time.
- 1.3.3.5** The communication equipment used for loading / unloading and handling of dangerous materials; it will be safe for using and adequate number and sufficiency to ensure uninterrupted communication, in-service and good condition.
- 1.3.3.6** Necessary warnings, warning signs and fire alarm buttons will be checked to be visible and easily accessible. Personnel will be equipped with protective clothing and equipment in accordance with the occupational health and safety criteria. Personnel without protective clothing and equipment appropriate to their job descriptions and working areas will not be employed.
- 1.3.3.7** Load transport units carrying temperature-controlled dangerous materials will only be temporarily stored at the IMDG site where the necessary measures are taken. The temperature values of the load transporting units will be continuously observed and monitored to the extent possible by means of remote monitoring facilities.
- 1.3.3.8** Class 4.3 Packages containing dangerous materials which emit flammable gases in contact with water and load transporting units containing such packages will be stored in covered and stacked areas which will not be affected by rain, sea water and similar factors. The area to be stored will be equipped with warning signs indicating risks. CTUs containing these dangerous materials will be stored in open facility areas if they are not affected by rain, sea water and similar factors.

1.3.4 Documentation

1.3.4.1 Passenger ships and cargo ships of 500 gross tonnage or over constructed on or after 1 September 1984 and carrying dangerous goods, shall comply with the requirements of regulation II-2/19 of SOLAS 1974. In this connection, such ships are required to carry on board a Document of Compliance in accordance with SOLAS 1974, regulation II-2/19.4 as evidence that the ship complies with the special requirements for ships carrying dangerous goods stipulated in SOLAS regulation II- 2/19. Cargo ships of less than 500 gross tonnage constructed on or after 1 February 1992 shall comply with the requirements of regulation II-2/19 of SOLAS 1974, unless Administrations have reduced the requirements and this has been recorded in the Document of Compliance.

1.3.4.2 The Document of Compliance provides information on the classes of dangerous goods that may be carried on deck and in each compartment of the ship.

	Document No	Release Date	Revised No	Revised Date	Page Number
					8
	 DANGEROUS GOOD SAFETY GUIDE 				

1.3.4.3 On board a ship carrying packaged dangerous cargoes a special list or manifest setting out the dangerous goods and marine pollutants and their location is required. A detailed stowage plan, which identifies by class and sets out the location of all dangerous goods and marine pollutants on board, may be used in place of such a special list or manifest. IMO FAL form 7 provides a format for such a manifest.

1.3.4.4 The dangerous goods and/or marine pollutants list or manifest shall be based on the documentation and certification required by chapter 5.4 of the IMDG Code and will contain the stowage location and the total quantity of dangerous goods and/or marine pollutants on board.

1.3.5 Supervision

1.3.5.1 After the approach of the ship to interface, the master and port authority will supervise the transport of dangerous cargoes within their respective areas of responsibility while the shift superintendent or the berth operator will ensure performance of proceedings in line with the risks related to the cargo and they shall notify the master regarding steps to be taken in emergency cases.

1.3.5.2 The responsible person for the ship will usually be the chief officer or cargo officer. These persons will ensure the continuity of communication with the shift superintendent or the person responsible with operations.

1.3.6 Information for operational and emergency purposes

1.3.6.1 The persons responsible from operation, within their respective areas of responsibility, should have the following information with respect to all dangerous cargoes transported or handled immediately available:

1.3.6.2 The description of dangerous cargoes in accordance with Chapter 5.4 of the IMDG Code;

1.3.6.3 Details of special equipment needed for the safe handling of a particular dangerous cargo; and

1.3.6.4 The emergency procedures, including action to be taken in the event of a spillage or leakage, counter measures against accidental contact, fire-fighting procedures and suitable fire-fighting media.

1.3.6.5 Information in respect of required special equipment and relevant testing and examination certificates should be immediately available to the master, the berth operator and the responsible persons.

1.3.6.6 Information as to emergency case procedures will be provided to the ship and people responsible from handling of cargo. The information should be placed in a location immediately accessible to the persons concerned, e.g., aboard ship in the Cargo office, at the berth in a place which is easily accessible by the responsible people.

1. This information at the berth should include the emergency procedures on the berth, fire and emergency arrangements on the berth and the telephone numbers of the fire service, ambulance, police and the authorities to be informed in case of an incident concerning dangerous cargoes.

	Document No	Release Date	Revised No	Revised Date	Page Number
					9
	 DANGEROUS GOOD SAFETY GUIDE 				

2. The telephone number of the responsible person of the berth and the emergency telephone number to be dialed in case of an incident concerning dangerous cargoes shall also be included.

1.3.6.7 Berth operator will be responsible of keeping record of positioning of dangerous materials being transported on the ship or in port facility and the berth operator will notify the duties in writing. Berth operator will keep these records about the positioning of dangerous materials and make them available in case of emergency to relevant persons and keep them in an easily accessible way for the relevant persons.

1.3.7 General handling precautions

1.3.7.1 Berth operator within its respective areas of responsibility, should ensure that:

1. Every person engaged in the handling of dangerous cargoes exercises reasonable care to avoid damage to packages, unit loads and cargo transport units.
2. Whilst dangerous cargoes are being handled, precautions are taken to prevent unauthorized access to handling areas.
3. If there is any loss of containment of dangerous cargo, every practical step is taken to minimize risks to persons and adverse effects to the environment.
4. Wrappings and packaging to be used in the activities of changing of cargo transport units, repair thereof or placing of the damaged packages inside the saving packages should be in accordance with the structure of dangerous materials and they shall be produced and certified as they are set out in chapter 6 of the IMDG Code.
5. Provisions of Code of Practice for Packing of Cargo Transport Units (CTU code) will be considered during internal loading process and/or loading process of other transport mode vehicles of the cargo transport units within the port facility. CFS personnel responsible of area shall issue a Container/Vehicle Packing Certificate if loading of a container or vehicle is performed at the areas of the facility where cargo transport units are unloaded and/or at the closed warehouses (CFS areas). Example for this is provided in Chapter 4. It will be checked whether each cargo transport unit coming to the port facility for transportation by the sea has got "Container/vehicle packing certificate" or not at the entry points to the port and it will not be permitted for cargo transport units to make loading to the ship if they don't have the required certificate.
6. The handling and temporary storage operations shall be conducted as per the rules specified on table 1 (Schedule for segregation of the dangerous cargoes at the port facility) within the annex of "Recommendations on the Safe Transport of Dangerous Cargoes and Related Activities in Port Areas" as part of circular with no MSC/Circ.1216 of the International Maritime Organization. Details are provided in Chapter 4
7. Fumigated cargo transport units and/or cargo transport units containing poisonous gases shall be stowed in a manner that their covers cannot be opened in an uncontrolled way.
8. Cargo transport units by which dangerous materials with temperature control are transported will be temporarily stored at the IMO area after the required precautions are taken. The temperature values of these cargo transport units will be constantly monitored and followed up through the camera system.
9. There is no closed area for packages containing dangerous materials releasing flammable gases when contacted with water and for cargo transport units containing them. If containers including class 4.3 type cargo possess qualities which won't be affected by wind, sea water or similar factors, they can be stowed at the IMO facility by considering

	Document No	Release Date	Revised No	Revised Date	Page Number
					10
	DANGEROUS GOOD SAFETY GUIDE				

the related rules. In other cases, it will not be allowed to handle and let them enter the port facility.

1.4. Operational Procedure of Safe Handling of Bulk Solid Dangerous Cargoes

Bulk solid dangerous cargoes in our port facility will be made direct delivery at the berths. Storage at the port facility will not be made.

1.4.1 Solid bulk dangerous cargoes

1.4.1.1 Loading and unloading program is prepared 1 day before the operation meeting. In this meeting, number of equipments and cranes, teams and shifts are specified. The personnel who will work in the operation will be provided with information as regards the risks of the cargo and they will be equipped with the necessary protective outfit. Environmental safety is provided by HSE. Personnel shall not be employed in the ship hold and on the site without gas measurements.

1.4.1.2 Kamyonların istiap haddinden fazla yüklem yapmamaları için gerekli uyarılar yapılır sorumlular bu konuda gerekli dikkati gösterirler. Yükleme yapıldıktan sonra kamyonların üstü muhakkak kapatılmalıdır.

1.4.1.3 Drivers will wait at a specified location away from the vehicle during loading and unloading of vehicles. It will be controlled that the driver has the necessary protective equipments.

1.4.1.4 The shift superintendent will be responsible from controlling the work security, control of equipments, entry and exit of outsiders, safe handling of the cargo, environmental cleaning and duly performance of these works.

1.4.1.5 Loading and unloading in accordance with the cargo plan is within the liability of berth operators.

1.4.1.6 If the evacuation of ship is partially completed, gas measurements will be conducted prior the assignment for evacuation of cargo in the hold of the ship.

1.4.1.7 Canvas is laid between the ship and the port and a responsible person is assigned for cleaning the cargo scattered around.

SAFETY HANDLING HANDLING OPERATION OF DANGEROUS PASTING LOADS (IMSBC Code)

1- The loading/discharge program is prepared at the operation meeting 2 days in advance, together with the information provided by the sender and the declaration, as well as the material safety data sheet for solid bulk cargoes, the general description of the cargo, and the material type. TMGD is notified to prepare the adr/imdg/rid documents required for the load. The equipment, crane, crew, number of posts and berth to be used in this meeting are determined. The personnel who will be trained in the operation are informed about the danger of the load and are equipped with the necessary protective equipment. Environmental safety is provided by Seç. No personnel will be assigned in the ship's hold and in the field before gas measurements are made.

2- Necessary warnings are made so that the trucks do not load excessively, and the responsible pay attention to this issue. Trucks must be covered after loading.

	Document No	Release Date	Revised No	Revised Date	Page Number
					11
	DANGEROUS GOOD SAFETY GUIDE				

3- Drivers will be kept standing in the vehicle loading away from the vehicle. It will be checked that the driver has the necessary protection equipment.

4- In the field of work, occupational safety, control of equipment, entry of external persons, safe handling of the load, environmental cleaning and control of these works in a appropriate way are in the shift supervisor.

5- Responsibility for the loading unloading in accordance with the cargo plan belongs to the dots.

6- If the ship evacuation is partially finished, gas measurements shall be made before the assignment is made for the evacuation of the load remaining in the ship warehouse.

7- The tarpaulin is laid between the ship and the dock and a person responsible for a cleaning person is determined for the loads scattered to the environment.

8- (IMSBC) Code is among the most serious dangers of loads.

9- Ships shall have to have a printed or electronic copy of the exemption certificate on the ship and submit to the port.

1.4.2 Requirement

1.4.2.1 While determining areas to be handled according to the risks of dangerous cargo; administrative buildings, other facility near the facility and the types of cargo handled in these facilities and features of other cargo which are temporarily stored and handled in the facility and the fastest and safest access opportunities for emergency response shall be taken into consideration.

1.4.2.2 Additional safety and security measures to be taken at port facilities and these measures will be provided by the operations department.

1.4.2.3 The shift superintendent or the berth operator will be assigned to be responsible from handling of solid bulk dangerous and their duties are defined within quality management system.

1.4.2.4 Electrical equipment, equipment and hardware to be used in areas where dangerous goods are handled shall be of standards suitable for use in flammable, combustible or explosive environments. Electrical loads other than arc lamps shall be used during the load operations for dangerous solid bulk cargoes and these lamps shall be gastight.

1.4.2.5 Adequate number of personal protective clothing, equipment and outfit shall be provided in line with the specifications of solid bulk dangerous cargoes which are handled and the risks they can impose.

1.4.2.6 At the areas where solid bulk dangerous cargoes releasing poisonous or flammable gases are handled, periodic controls will be conducted for measuring poisonous or flammable gas concentrations as well as their probable dissemination and the precautions taken will be recorded.

1.4.2.7 Canvas to be used for avoiding the solid bulk dangerous cargoes from falling to the sea during evacuation or while loading to the ship, will be kept between the ship and the port during the operations.

	Document No	Release Date	Revised No	Revised Date	Page Number
					12
	 DANGEROUS GOOD SAFETY GUIDE 				

- 1.4.2.8** The master who will load/unload the solid bulk dangerous cargoes will receive the detailed loading or unloading plan which includes details as to the position and quantity of the cargo in the ship from the berth operator prior to the beginning to loading or unloading process. An agreement shall be reached between the master and the berth operator as to the said loading or unloading plan.
- 1.4.2.9** The master and the berth operator will ensure, within their respective areas of responsibility, that operations regarding transport, handling or loading or unloading of solid bulk dangerous cargoes are done in accordance with “International Maritime Solid Bulk Cargo Code (IMSBC Code)”, “the Code of Practice for the Safe Loading and Unloading of Bulk Carriers (BLU Code)”, “Legislation on Safe Loading and Unloading of Bulk Carriers” promulgated in Official Gazette dated 31.12.2005 number 26040 and “Manual on Loading and Unloading of Solid Bulk Cargoes for Terminal Representatives (IMO MSC/Circ.1160, MSC/Circ.1230 and MSC.1/Circ.1356)”

1.4.3 Documentation

- 1.4.3.1** Cargo ships of 500 gross tonnage or over constructed on or after 1 September 1984 and carrying dangerous goods, shall comply with the requirements of regulation II-2/19 of SOLAS 1974. In this connection, such ships are required to carry on board a Document of Compliance in accordance with SOLAS 1974, regulation II-2/19.4 as evidence that the ship complies with the special requirements for ships carrying dangerous goods stipulated in SOLAS regulation II-2/19. Cargo ships of less than 500 gross tonnage constructed on or after 1 February 1992 shall comply with the requirements of regulation II-2/19 of SOLAS 1974, unless Administrations have reduced the requirements and this has been recorded in the Document of Compliance.
- 1.4.3.2** The Document of Compliance provides information on the classes of dangerous goods that may be carried on deck and in each compartment of the ship.
- 1.4.3.3** On board a ship carrying packaged dangerous cargoes, additionally a special list or manifest setting out the dangerous goods and their location or a detailed stowage plan is required

1.4.4 Responsibility for compliance

	Document No	Release Date	Revised No	Revised Date	Page Number
					13
	 DANGEROUS GOOD SAFETY GUIDE 				

1.4.4.1 When solid bulk dangerous cargoes are carried, handled or stowed, the master of a ship and berth operator within their respective areas of responsibility should ensure that the loading and unloading operations are carried out in accordance with the Bulk Cargo (BC) Code and the Code of Practice for the Safe Loading and Unloading of Bulk Carriers, where applicable, and the Manual on Loading and Unloading of Solid Bulk Cargoes for Terminal Representatives.

1.4.5 Emission of harmful dusts

1.4.5.1 Where the transport, handling or stowage of solid bulk dangerous cargoes may give rise to the emission of dust, all necessary practicable precautions should be taken to prevent and minimize the emission of such dusts and to protect persons and the environment from them.

1.4.5.2 The precautions should include the use of appropriate protective clothing, respiratory protection, and barrier creams, when needed as well as personal washing and hygiene and laundering of clothing.

1.4.6 Emission of dangerous vapor/oxygen deficiency

1.4.6.1 Where the transport or handling of solid bulk dangerous cargoes may give rise to the emission of a toxic or flammable vapor, all necessary practicable precautions should be taken to prevent and minimize the emission of such vapors and to protect persons from toxic vapors.

1.4.6.2 Whenever solid bulk dangerous cargo which may emit a toxic or flammable vapor is stowed or carried, an appropriate instrument for measuring the concentration of the toxic or flammable vapor should be provided.

1.4.7 Emission of explosive dusts

1.4.7.1 Where the transport or handling of solid bulk dangerous cargoes may give rise to the emission of dust that is liable to explode on ignition, all necessary practicable precautions, such as availability of fire hose, should be taken to prevent such an explosion and to minimize the effects of an explosion if one should occur.

1.4.7.2 Precautions include ventilating an enclosed space to limit the concentration of dust in the atmosphere, avoiding sources of ignition, minimizing the heights of walls of materials, and hosing down rather than sweeping.

1.4.8 Spontaneously combustible substances and substances that react with water

1.4.8.1 Solid bulk dangerous cargoes which, on contact with water, may evolve flammable or toxic vapors or become liable to spontaneous combustion, should be kept as dry as reasonably practicable. Such cargoes should be handled only during dry weather conditions.

	Document No	Release Date	Revised No	Revised Date	Page Number
					14
	 DANGEROUS GOOD SAFETY GUIDE 				

1.4.9 Oxidizing substances

1.4.9.1 Solid bulk dangerous cargo that is an oxidizing substance should be transported, handled and stowed in a manner that prevents in so far as reasonably practicable, contamination with combustible or carbonaceous materials. Oxidizing substances should be kept away from any source of heat or ignition.

1.4.10 Incompatible materials

1.4.10.1 Solid bulk dangerous cargoes should be carried, handled and stowed in a manner that prevents any dangerous interaction with incompatible materials.

1.4.11 Cargo which can be handled at our facility in accordance with IMSBC CODE

1.4.11.1 Group A cargo (liquefiable cargo)

Liquefaction is the status when a cargo becomes fluid (liquid). Liquefiable cargoes hold a certain amount of moisture and have got small particles and they may relatively and with particles.

Group A cargoes

Mineral concentrations

Mineral concentrations are refined ores in which valuable components are enriched by the elimination of waste materials inside them. They include copper concentrations, iron concentrations, lead concentrations, nickel concentrations, and zinc concentrations.

Nickel ore

There are different types of nickel ores with varying colors, size of particle and moisture. Some of them can contain ores similar to clay.

1.4.11.2 Group B cargoes (which possess a chemical hazard)

Group B cargoes are classified in two ways within the IMSBC Code: ‘Dangerous goods in solid form in bulk’ (under the International Maritime Dangerous Goods (IMDG) Code; and ‘Materials hazardous only in bulk’ (MHB).

You will find this information in the “characteristics” section of the cargo’s schedule. Cargoes classified as dangerous goods in solid form in bulk will also have a ‘UN’ number in the Bulk Cargoes Shipping Name.

Dangerous goods in solid form in bulk

In the Code these cargoes are classed as follows:

Class 4.1: Flammable solids

Class 4.2: Substances liable to spontaneous combustion

Class 4.3: Substances which, in contact with water, emit flammable gases

Class 5.1: Oxidizing substances

Class 6.1: Toxic substances

Class 8: Corrosive substances

Class 9: Miscellaneous dangerous substances and articles.

Materials hazardous only in bulk (MHB)

Materials hazardous only in bulk (MHB) MHB cargoes are materials which possess chemical hazards when transported in bulk that do not meet the criteria for inclusion in the IMDG classes

	Document No	Release Date	Revised No	Revised Date	Page Number
					15
	 DANGEROUS GOOD SAFETY GUIDE 				

above. They present significant risks when carried in bulk and require special precautions. They are described as follows:

Combustible solids: Materials which are readily combustible or easily ignitable

Self-heating solids: Materials that self-heat

Solids that evolve into flammable gas when wet: Materials that emit flammable gases when in contact with water

Solids that evolve toxic gas when wet: Materials that emit toxic gases when in contact with water

Toxic solids: Materials which are acutely toxic to humans if inhaled or brought into contact with skin

Corrosive solids: Materials which are corrosive to skin, eyes, metals or respiratory sensitizers.

The risks Group B cargoes present

The major risks associated with Group B cargoes are fire and explosion, release of toxic gas and corrosion.

Direct reduced iron (DRI)

DRI may react with water and air to produce hydrogen and heat. The heat produced may cause ignition. Oxygen in enclosed spaces may also be depleted.

Metal sulphide concentrates

Some sulphide concentrates are prone to oxidation and may have a tendency to selfheat, leading to oxygen depletion and emission of toxic fumes. Some metal sulphide concentrates may present corrosion problems.

Organic materials

Ammonium nitrate-based fertilizers support combustion. If heated, contaminated or closely confined, they can explode or decompose to release toxic fumes and gases.

Wood products transported in bulk

Wood products transported in bulk are listed in a new schedule to the Code: Wood Products – General. They include logs, pulpwood, roundwood, saw logs and timber. These cargoes may cause oxygen depletion and increase carbon dioxide in the cargo space and adjacent spaces.

These are wood products loaded and discharged by methods such as elevators and grabs. They are distinct from wood products listed in other schedules.

1.4.11.3 Group C cargoes (cargoes which are neither liable to liquefy nor possess chemical hazards)

Although Group C cargoes do not present the dangers associated with Group A and B cargoes, they can still carry risks.

Examples of Group C cargoes

Iron ore and high density cargoes

Sand and fine particle materials

Fine particle materials can be abrasive. Silica dust is easily inhaled and can result in respiratory disease. Materials with tiny particles could be abrasive. Silica sand could be easily inhaled which could cause inhalation diseases. People who may be exposed to cargo dust should wear goggles or other equivalent dust eye-protection, dust filter masks and protective clothing.

Cement

Cement may shift when aerated during loading. Dust can also be produced from this cargo. People who may be exposed to cargo dust should wear goggles or other equivalent dust eye-protection, dust filter masks and protective clothing.

	Document No	Release Date	Revised No	Revised Date	Page Number
					16
	 DANGEROUS GOOD SAFETY GUIDE 				

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.

-In emergencies such as fire, leakage, rash during the transport of the freight loads, they benefit from the EMS guide with emergency intervention methods and emergency tables for dangerous loads of ships.

-They benefit from the medical first aid guide (MFAG) in the IMDG code supplement in order to provide the necessary medical first aid for the health problems that occur as a result of the accidents involved in the damages of the liberties and the accidents involved in these loads.

2.1 Responsibilities of the relevant person of the goods

2.1.1 To prepare all necessary documents, information and certificates relating to dangerous goods and provide availability of these documents with the cargo during the transport activities.

2.1.2 Ensure the proper classification, identification, packing, marking and plating of the dangerous goods in accordance with the legislation.

2.1.3 Ensure safe loading, stowage, transport and unloading of dangerous goods in approved and proper package, container and cargo units.

2.1.4 Ensure the training of all relevant personnel on marine risks of dangerous cargo, safety precautions, safe operation, emergency measures, safety and so on and keep training records.

2.1.5 Provide necessary safety measures for improper, unsafe or risk-posing hazardous substances.

2.1.6 Provide the necessary support and information to the relevant persons in case of emergency or accident.

2.1.7 Inform the administration on dangerous goods accidents occurred in the area of responsibility.

2.1.8 Present the requested information and document in the inspections carried out by the Authorities and provide the necessary cooperation.

2.2 Responsibilities of the port facility operator

2.2.1. It does not dock the ships carrying dangerous goods without the permission of the port authority.

2.2.2. It gives written information to the ship that will dock at its facility within the scope of facility rules, cargo handling rules and relevant legislation.

2.2.3. It does not handle dangerous goods for which it has not received a handling permit from the administration, and it does not harm the ships that will berth by planning in this context.

2.2.4. It requests mandatory documents, information and documents related to dangerous goods from the cargo person and ensures that they are found with the cargo. If the relevant documents, information and documents cannot be provided by the cargo person, it is not obliged to accept or handle the dangerous cargo at its facility.

2.2.5. It carries out the loading or unloading operation according to the agreement to be reached by sharing all the data that may be required according to the characteristics of the cargo with the ship's person. The ship does not make any changes in the operation without the knowledge of the person concerned.

2.2.6. It determines the working limits by taking into account the safe working capacity of the facility and the weather forecasts, and takes the necessary measures to ensure that the ship is safely anchored at the pier and handling.

	Document No	Release Date	Revised No	Revised Date	Page Number
					17
	 DANGEROUS GOOD SAFETY GUIDE 				

2.2.7. It controls the transport documents containing information that the dangerous goods coming to the facility are classified, packaged, marked, labeled, plated and loaded safely to the cargo transport unit.

2.2.8. It ensures that the personnel involved in the handling of dangerous goods and the planning of this handling are documented by receiving the necessary training, and does not assign personnel without documents to these operations.

2.2.9. It ensures that the dangerous goods handling equipment in its facility is in working condition and that the relevant personnel are trained and documented on the use of these equipment.

2.2.10. By taking occupational safety measures at the coastal facility, it ensures that the personnel use personal protective equipment suitable for the physical and chemical characteristics of the dangerous cargo.

2.2.11. It carries out activities related to dangerous cargoes at docks, piers and warehouses established in accordance with these works.

2.2.12. Equips the piers and piers reserved for ships that will load or unload dangerous liquid bulk cargoes with appropriate installations and equipment for this work.

2.2.13. It keeps an up-to-date list of all dangerous cargoes on the ships berthed at its facility and in the closed and open areas of its facility and gives this information to the relevant parties upon request.

2.2.14. It notifies the port authority of the instant risk posed by the dangerous goods it handles or temporarily stores in its facility and the measures it takes for it.

2.2.15. It notifies the port authority of the accidents related to dangerous goods, including the accidents at the entrance to the closed areas.

2.2.16. It provides the necessary support and cooperation in the controls and inspections carried out by the administration and the port authority.

2.2.17. It ensures that Class 1 (except Class 1 Compatibility Group 1.4 S), Class 6.2 and Class 7 dangerous goods, which are not allowed to be stored temporarily, are transported out of the coastal facility as soon as possible, and in cases where it is necessary to wait, it applies to the Administration for permission.

2.2.18. It 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 goods are handled and makes the necessary controls periodically.

2.2.19. It obtains permission from the port authority before the hot work and operations to be carried out in the areas where dangerous cargoes are handled and temporarily stored.

2.2.20. Prepares an emergency evacuation plan for the evacuation of ships from the coastal facilities in case of emergency and submits it to the port authority and informs the relevant people about the plan approved by the port authority.

2.2.21. It ensures the internal loading of cargo transport units in accordance with the loading safety rules in its facility.

2.3 Responsibilities of the ship's master

2.3.1. The load of the ship is certified that the load to be carried is suitable for transport and the load warehouses, load tanks and load handling equipment are suitable for load transportation.

2.3.2. It requests all compulsory documents, information and documents related to dangerous loads from the load and ensures that it is located with the load during the transportation period.

	Document No	Release Date	Revised No	Revised Date	Page Number
					18
	 DANGEROUS GOOD SAFETY GUIDE 				

2.3.3. Within the scope of legislation and international conventions, the documents, information and documents that should be related to dangerous loads on board are appropriate and up -to -date.

2.3.4. Controls the transport documents containing information that the load transport units loaded on the ship are marked, plastered and safely loaded.

2.3.5. It informs the relevant ship personnel on risks, safety procedures, safety and emergency measures, intervention methods and similar issues of dangerous loads.

2.3.6. It contains the current lists of all dangerous loads on the ship and declares to the concerned concerned if requested.

2.3.7. It allows the installation program to be confirmed and certified and operating in the form of work.

2.3.8. It informs the port chairman and coastal facility to the port chairman and coastal facility.

2.3.9. It does not agree to carry the dangerous load in case of leakage or such a possibility.

2.3.10. During the cruise or on the coastal facility, it informs the port chairmanship of the dangerous load accidents on the ship.

2.3.11. Provides the necessary support and cooperation in the controls and inspections carried out by the Administration and Port Presidency.

2.3.12. It does not agree to carry dangerous loads that are not included in the ship certificates issued by the relevant institutions and organizations.

2.3.13. It allows the ship people in charge of handling dangerous loads to use personal protective equipment in accordance with the physical and chemical properties of the load during handling.

2.3.14. Provides the requirements of loading safety of loads loaded on ships.

2.4 Responsibilities of the Dangerous Goods Safety Consultant

2.5.1. To monitor compliance with the requirements for the transport of dangerous goods.

2.5.2. To provide suggestions to the coastal facility regarding the transportation of dangerous goods.

2.5.3. To prepare an annual report to the coastal facility on the activities of the coastal facility operator in the transport of dangerous goods. To submit reports to the Port Authority in quarterly periods throughout the year. (Annual reports are kept for 5 years. They are submitted to the administration upon request.)

2.5.4. TMGDs, which are authorized under the IMDG Code, prepare a quarterly report regarding the responsibilities of the coastal facilities they serve or serve as determined in this Regulation and notify this report to the Administration. In case of deficiencies or inaccuracies in the reports, the Administration or the port authority is authorized to conduct inspections at the coastal facility.

2.5.5. To control the following applications and methods;

2.5.5.1. Procedures for controlling that the dangerous goods arriving at the facility are properly defined, the correct shipping names of the dangerous goods are used, certified, packaged/packaged, labeled and declared, loaded and transported safely in the approved and legal packaging, container or cargo transport unit, and reporting the control results.

2.5.5.2. Loading/discharging procedure for handled and temporarily stored dangerous goods,

2.5.5.3. Whether the coastal facility takes into account the special requirements regarding the transported dangerous goods while purchasing the transport vehicles for the handled dangerous goods,

2.5.5.4. Control methods of equipment used in transport, loading and unloading of dangerous goods,

	Document No	Release Date	Revised No	Revised Date	Page Number
					19
	 DANGEROUS GOOD SAFETY GUIDE 				

2.5.5.5. Whether the shore facility employees have received appropriate training, including the changes made in the legislation, and whether these training records are kept,

2.5.5.6. The suitability of emergency methods to be applied in case of an accident or an event that will affect safety during the transportation, loading or unloading of dangerous goods,

2.5.5.7. Compliance of reports prepared on serious accidents, incidents, or serious violations that occur during the transportation, loading or unloading of dangerous goods,

2.5.5.8. Determination of the necessary measures against the reoccurrence of accidents, incidents or serious violations and evaluation of the implementation,

2.5.5.9. To what extent the rules regarding the selection of subcontractors or 3rd parties and the transportation of dangerous goods are taken into account,

2.5.5.10. Determining whether the employees in the transportation, handling, storage and loading/unloading of dangerous goods have detailed information about the operational procedures and instructions.

2.5.5.11. The suitability of the measures taken to be prepared for the risks during the transportation, handling, storage and loading/unloading of dangerous goods

2.5.5.12. Procedures for all mandatory documents, information and documents related to dangerous goods.

2.5.5.13. Procedures for the safe berthing, mooring, loading/discharging, sheltering or anchoring of ships carrying dangerous goods to the shore facility day and night.

2.5.5.14. Procedures for additional measures to be taken according to seasonal conditions for loading, unloading and limbo operations of dangerous goods.

2.5.5.15. Procedures for fumigation, gas measurement and degassing operations. Procedures for keeping records and statistics of dangerous goods,

2.5.5.16. The accuracy of the issues regarding the possibility, capability and capacity of the coastal facility to respond to emergencies,

2.5.5.17. The suitability of the regulations for the first interventions to be made for the accidents involving dangerous goods,

2.5.5.18. Procedures for handling and disposal of damaged dangerous goods and waste contaminated by dangerous goods,

2.5.5.19. Information on personal protective clothing and procedures for using them.

2.5 Responsibilities of 3rd party, cargo / ship broker etc. operating in the port facility

2.5.1 Ensure that their personnel participating in the port facility has necessary training specified in the 27.03.2013 dated No. 79462207/315 Circular of the Authority,

2.5.2 Comply with the requirements set out in the IMDG Code,

2.5.3 Comply with the procedures for Hazardous Goods Guide and Hazardous substances formed by the port facility,

2.5.4 Handling, transport and storage of hazardous substances in the port facility and report any violation to the relevant authority,

2.5.5 Submit the (SDS) Form, which constitutes an integral part of the operations for the elimination of the Occupational Health and Safety risks that may occur during the use and storage of dangerous substances and prepared to inform the users accurately and adequately, to the port facility and Port Authority.

3.POLICIES/APPLIED RULES AND MEASURES TO BE FOLLOWED BY PORT FACILITY

	Document No	Release Date	Revised No	Revised Date	Page Number
					20
	 DANGEROUS GOOD SAFETY GUIDE 				

The rules and measures given in this chapter are elaborated in Chapters 1,4,6,7,8,9,10 Hazardous Material Emergency Plan and Accident Prevention Policy. The requirement for infrastructure is met by our port facilities.

3.1 Berthing

3.1.1 Adequate and safe mooring facilities are provided and

3.1.2 Adequate safe access is provided between the ship and the shore.

3.2 Examination

3.2.1 The port operator should ensure that areas where packages or cargo transport units are kept are properly supervised and packages or cargo transport units are regularly inspected for leakage or damage. Any leaking package or cargo transport units should only be handled under the supervision of a responsible person.

3.2.2 The port operator should ensure that no person, without reasonable cause, opens or otherwise interferes with any freight container, tank-container, portable tank or vehicle containing dangerous cargoes. When a freight container, tank-container, portable tank or vehicle is opened by a person authorized to examine its contents, the port operator should ensure that the person concerned is aware of the possible hazards arising from the presence of the dangerous cargoes.

3.2.3 Any equipment which is used for handling and stowing processes and driven with or without power shall be checked and inspected to ensure that it is manufactured in accordance with the manufacturer's instructions and exists in good operating conditions and in compliance with proper standards.

3.3 Identification, packing, marking, labelling or placarding and certification

3.3.1 The port operator should ensure that dangerous cargoes entering his premises have been duly certified or declared by the cargo interests as being properly identified, packed, marked, labelled or placarded so as to comply with the appropriate provisions of the IMDG Code or, alternatively, with appropriate national or international legal requirements applicable to the relevant mode of transport.

3.4 Safe handling and segregation

A port operator transporting or handling dangerous cargoes should appoint at least one responsible person who has adequate knowledge of the national or international legal requirements concerning the transport and handling of dangerous cargoes, including the segregation of incompatible cargoes.

3.4.1. The port authority stops the handling operation at the coastal facility when it sees any risk and does not start it until the risk is eliminated.

3.4.2. BLU Code and BLU Manual, Safe Practice Code for Load Stacking and Safety (CSS Code), Code of Practice for Packing Cargo Transport Units (CTU Code) and Safe Practices Code for Ships Carrying Timber Cargo on Deck in order to ensure safe loading of the cargo on the ship. TDC Code) provisions are complied with.

3.4.3. Stacking of loads is carried out in accordance with the relevant legislation and international agreements we are a party to.

3.4.4. The ship cannot be loaded more than the loading limit considering the loading limit brand. In case of detection of such a situation, the ship is not allowed to sail and administrative action is taken against the ship's person within the scope of Article 22.

	Document No	Release Date	Revised No	Revised Date	Page Number
					21
	 DANGEROUS GOOD SAFETY GUIDE 				

3.4.5. Before the handling operation, the loading-unloading plan and the results of the draft survey or weighbridge survey are submitted to the port authority by the ship's person to determine the amount of loaded cargo before the ship takes off. Administration or port authority may request that the draft survey or scale survey report be received from an authorized inspection firm.

3.4.6. Precautions are taken to prevent the stability of the ship from being adversely affected by ensuring that the cargo in bulk carriers, especially single-hold bulk carriers, is loaded in such a way that it spreads over the floor of the hold (by trapping).

3.4.7. It is ensured that the load and ballast water patterns are monitored throughout the loading or unloading operation so that the ship's structure is not subjected to excessive stress.

3.4.8. Care is taken to ensure that the ship is free of heel, but if an inclination is required during loading, it is ensured that this is as short as possible. In order to avoid structural damage to the ship, balanced loading and unloading is ensured in accordance with the approved stability boucle.

3.4.9. In adverse meteorological and oceanographic conditions that may affect the cargo handling operation, the handling operation is stopped by the captain until the conditions improve.

3.4.10. In order to prevent situations such as placing the heavy load on the light load, placing the liquid load on the dry load, and spreading the smell of bad-smelling loads to other loads, loads with properties that may damage other loads are loaded in accordance with the separation rules.

3.4.11. All cargoes, cargo units and cargo transport units, except solid and liquid bulk cargoes, in accordance with SOLAS Chapter VI Part A Rule 5.6, in order to ensure that the safety measures related to loading, stacking, separation, handling, transportation and unloading of cargoes on the ship are fully implemented and maintained. It is loaded, stacked and secured in accordance with the Cargo Securing Manual approved by the classification societies on behalf of the Administration.

3.5. Loads Covered by Imdg Code

3.5.1. Substances and objects that are prohibited in the IMDG Code cannot be transported by sea.

3.5.2. The parties involved in the transportation of dangerous goods transported in packages take the necessary measures in accordance with this Regulation and the provisions of the IMDG Code, taking into account the nature and extent of the foreseeable risks, in order to prevent damage and injury and to minimize their effects.

3.5.3. In the transport of dangerous goods by sea, it is obligatory to use the packages defined in IMDG Code Chapter 6 and tested by the institutions authorized by the Ministry or the authorized administration of a country party to SOLAS and given UN certificate.

3.5.4. The Container/Vehicle Packing Certificate in IMDG Code Rule 5.4.2 is filled and signed by the persons who load the dangerous goods to the cargo transport unit (excluding the tank container). These persons receive the relevant training in IMDG Code Rule 1.3. The Container/Vehicle Packing Certificate is presented to the port before the cargo arrives at the port or at the entrance with the cargo. A copy of this certificate is placed on the inside wall of the right door of the container.

3.5.5. Documents specified in IMDG Code Rules 5.4.3, 5.4.4 and 5.4.5 are kept on every ship carrying dangerous goods in packages.

3.5.6. In accordance with SOLAS Chapter II-2 Part G Rule 19.4, a Certificate of Compliance issued by the authorized administration is kept on the ships in order to prove that the ships are in a suitable structure and equipment to carry dangerous goods. Except for dangerous solid bulk

	Document No	Release Date	Revised No	Revised Date	Page Number
					22
	 DANGEROUS GOOD SAFETY GUIDE 				

cargoes, there is no need for certification for IMDG Code Class 6.2, Class 7 and dangerous cargoes that can be transported in limited quantities.

3.6 Cargoes Covered by the IMSBC Code

(1) In accordance with SOLAS Chapter VII Part A Rule 7.2.1, the use of “bulk shipping name” is mandatory in all documents related to the transport of dangerous solid bulk cargoes, the trade name of the cargo alone is not sufficient.

(2) Ships carrying dangerous solid bulk cargoes must have a cargo manifest or special list showing the dangerous goods on board, together with their locations, in accordance with SOLAS Chapter VII Part A Rule 7.2.2. A detailed stowage plan showing the location and class of all dangerous goods on board can be used instead of the aforementioned cargo manifest or special list.

(3) In accordance with SOLAS Chapter XII Rule 10, the density of solid bulk cargoes is declared by the cargo person in addition to SOLAS Chapter VI Part A Rule 2 before the cargo is loaded on the ship. For ships within the scope of SOLAS Chapter XII Rule 6, all solid bulk cargoes with densities between 1,250 kg/m³ and 1,780 kg/m³ must have a density measurement taken by an authorized testing firm, unless they meet the requirements for solid bulk cargoes with a density of 1,780 kg/m³ and above. This load density test can be performed by a laboratory accredited by the Turkish Accreditation Agency (TS EN ISO/IEC 17025: 2017) if the loading port is in Turkey.

(4) Within the scope of the IMSBC Code, the following conditions are required for Group A (and Group A and B) cargoes to be handled at shore facilities and to be transported on board:

a) The transportable maximum moisture (TML) certificate of the cargo and the moisture content (MC) certificate or declaration of the cargo, which are issued by the authorized institutions by the authorized administration of the port of loading, are delivered by the cargo person to the relevant ship. If the loading port is in Turkey, the TML test is performed by a laboratory accredited by the Turkish Accreditation Agency (TS EN ISO/IEC 17025: 2017). The TML certificate contains the TML test result or the test report containing this result. A copy of these documents is taken and stored by the relevant port authority and the coastal facility operator and is submitted upon request during the inspections made by the Administration.

b) To ensure that the MC value is less than TML while the cargo is on board, the procedures for sampling, testing and controlling the moisture content are prepared by the ship owner, taking into account the provisions of the IMSBC Code. The approval of these procedures and their implementation are controlled by the port authority. The document stating that the procedure has been approved is given to the ship owner.

c) Group A cargoes can only be loaded on the ship if the actual MC value at the time of loading is lower than the TML value of that cargo. Group A cargoes with an MC value higher than the TML value can only be transported on ships with the characteristics specified in IMSBC Code Section 7.3.2.

ç) TML test is carried out within six months before the loading date of Group A cargo. If there is a change in the load composition or characteristics for any reason, a new test is performed.

d) Sampling and testing for the MC test of Group A cargo should be as close as possible to the date of loading of the cargo on board, and never more than seven days. If heavy rain or snow

	Document No	Release Date	Revised No	Revised Date	Page Number
					23
	 DANGEROUS GOOD SAFETY GUIDE 				

falls between the test and loading, the moisture content test is repeated to confirm that the MC value of the load does not exceed the TML value.

(5) Information on solid bulk cargoes within the scope of the IMSBC Code must be provided to the ship owners in accordance with SOLAS Chapter VI Part A Rule 2 by the cargo authorities.

(6) Appropriate emergency response instructions are kept on board to respond to accidents caused by dangerous solid bulk cargoes.

(7) The procedures regarding the transportation and notification of a solid bulk cargo not included in the IMSBC Code are determined by the Administration.

3.7 transport of dangerous loads in the port area and between adjacent ports

Dangerous loads between the port administrative field and between adjacent ports are carried in appropriate packaging, loaded with and loaded to the load transport units and carried by the carriage and transport. When determining the number of passengers to be found on the ships, the provisions of the IMDG Code Rule 7.1.3.1 and Section 7.5 are taken into consideration. The procedures and principles regarding this issue are determined by the administration.

3.8 Other ship-specific provisions

Pursuant to the Decision No. MEPC.148(54), which published the guide created to ensure that general dry cargo ships already certified to carry vegetable oils in bulk continue to carry vegetable oils for certain voyages, the cargoes defined in article 1.1 of the guideline, the general dry cargo with the conditions given in the said article. can be transported on board ships.

Within the scope of the provisions of IGC Code Section 13.6.13, it is obligatory to have at least two portable gas detectors on ships carrying cargo within the scope of the IGC Code. These detectors should be capable of detecting the oxygen level in closed spaces and measuring flammable, explosive and toxic gases that may arise from the cargoes carried by the ship. The detectors to be kept on the ships can be separate for each gas or they can be multi-purpose with the ability to measure the presence of gases that may arise from the cargoes carried. The detectors that measure the oxygen level to be kept on the ships meet the TS EN 50104:2020 performance requirements and test standard; detectors measuring the presence of flammable gas, TS EN 60079-29-1:2017 performance requirements and test standard; Detectors measuring the presence of toxic gas must meet TS EN 60079-29-4:2011 design requirements and test standards. The calibrations of these detectors are carried out in accredited laboratories according to the TS EN ISO / IEC 17025: 2017 standard, at the periods and in the method determined by the manufacturers.

On ships, the provisions of MARPOL73/78 Annex II Chapter 5 Regulation 13, which contain mandatory provisions regulating the discharge of cargo wastes or ballast waters, tank washing waters or other mixtures containing Category X, Y or Z substances shall be complied with.

Ships carrying Category X loads within the scope of MARPOL Annex II, or Category Y cargoes with high viscosity or which can solidify, have to pre-wash the cargo tanks they discharged from

	Document No	Release Date	Revised No	Revised Date	Page Number
					24
	 DANGEROUS GOOD SAFETY GUIDE 				

the discharge port in order to get rid of the cargo wastes and deliver the wastes to the waste reception facility.

In case the ships carrying Category Y or Z cargoes do not discharge their cargo in accordance with the evacuation guide (Procedures and Arrangement Manual), the model of which is explained in MARPOL Annex II Appendix 4, or if the alternative measures to be taken are not approved by the port authority, the cargo tanks they discharged before departing from the discharge port are purified from cargo wastes. They have to pre-wash and give their waste to the waste reception facility.

Pre-washing is carried out under a procedure prepared in accordance with MARPOL Annex II Attachment 6, approved by the authorized classification societies for classed ships, and under a procedure approved by the competent authority of the flag state for non-classified ships. Administration may grant exemption for pre-washing.

3.9 Emergency procedures

3.9.1 The port operator should ensure that appropriate emergency arrangements are made and brought to the attention of all concerned. These arrangements should include:

3.9.1.1 The provision of appropriate emergency alarm operating points;

3.9.1.2 Procedures for notification of an incident or emergency to the appropriate emergency services within and outside the port area;

3.9.1.3 Procedures for notification of an incident or emergency to the port authority and port area users both on land and water;

3.9.1.4 The provision of emergency equipment appropriate to the hazards of the dangerous cargoes to be handled;

3.9.1.5 Co-ordinated arrangements for the release of a ship in the case of an emergency; and

3.9.1.6 Arrangements to ensure adequate access/egress at all times.

3.9.2 The port operator should consider the necessity of arrangements for a safe and quick emergency escape, taking into account the nature of the dangerous cargoes and any special conditions.

3.9.3 The "Medical First Aid Guidelines (MFAG)" annexed to IMDG Code shall be used to provide with those persons effected from damages caused by hazardous loads with medical first aid in case of any health issues occurring in consequence of accidents involving such loads.

3.9.4 "Emergency Schedules (EmS)" annexed to IMDG Code shall be used for any emergencies involving hazardous loads.

3.9.5 In case of any emergencies or accidents, the first aid material to be used for response shall be kept in easily accessible locations known to personnel.

3.10 Emergency information

3.10.1 The port operator should ensure that a list of all dangerous cargoes in the warehouses, sheds or other areas, including the quantities, and if appropriate Proper Shipping Names, correct technical names (if applicable), UN numbers, classes or, where they are assigned, the division of the goods, including for class 1, the compatibility group letter, subsidiary hazard classes (if assigned), packing group (where assigned) and exact location is held readily available for the emergency services.

	Document No	Release Date	Revised No	Revised Date	Page Number
					25
	 DANGEROUS GOOD SAFETY GUIDE 				

3.10.2 The port operator should ensure that the responsible person for a warehouse, shed or area, where dangerous cargoes are handled, is as far as possible aware of the status of occupancy with the dangerous cargoes in his area and is available in case of emergencies.

3.10.3 The port operator should ensure that the person responsible for cargo handling operations involving dangerous cargoes has the necessary information on measures to be taken to deal with incidents involving dangerous cargoes and that it is available for use in emergencies.

3.10.4 Electronic or other automated information processing or transmission techniques shall be employed to provide access to information.

3.10.5 Data sheets of hazardous materials shall normally be kept by the manufacturers of chemicals. Emergency response information and electronic databases shall be available and used in case of direct access to information.

3.10.6 The port operator should ensure that the port or berth emergency response procedures and port or port emergency telephone numbers are placed at prominent locations within or at warehouses, sheds or areas where dangerous cargoes are transported or handled.

3.10.7 The port operator should ensure that fire-fighting and pollution-combating equipment and installations are clearly marked as such and notices drawing attention to them are clearly visible at all appropriate locations.

3.10.8 The port operator should inform the master of any ship carrying or handling dangerous cargoes of the emergency procedures in force and the services available at the port.

3.11 Fire precautions

3.11.1 The port operator should ensure that:

3.11.1.1 All parts of the port and any ship moored to it are at all times accessible to emergency services

3.11.1.2 Audible or visual alarms for emergency use are installed in the area or other means of rapid communication with emergency services are available

3.11.1.3 The handling of dangerous cargoes are kept clean and tidy

3.11.1.4 Before dangerous cargoes are handled, the master of a ship is informed of the location of the nearest means of summoning emergency services and

3.11.1.5 The lighting and other electrical equipment in areas where dangerous cargoes are present on the port is of a type safe for use in a flammable or explosive atmosphere

3.11.1.6 Places where smoking is prohibited are designated and

3.11.1.7 Notices in a pictogram form prohibiting smoking are clearly visible at all locations and at a safe distance from places where smoking would constitute a hazard.

3.11.1.8 The port operator should ensure that equipment used in an area or space where a flammable or explosive atmosphere may exist or develop, is of a type safe for use in a flammable or explosive atmosphere and used in such a manner that no fire or explosion can be caused.

3.11.1.9 The port operator should ensure that only portable electrical equipment of a type safe for use in a flammable atmosphere is used in an area or space in which a flammable atmosphere may occur.

3.11.1.10 The port operator should ensure that electrical equipment on a wandering lead is not used in areas or spaces where a flammable atmosphere may occur.

3.12 Fire fighting

3.12.1 The port operator should ensure that adequate and properly tested fire-fighting equipment and facilities are provided and readily available in accordance with the requirements of the regulatory authority in areas where dangerous cargoes are transported or handled.

	Document No	Release Date	Revised No	Revised Date	Page Number
					26
	 DANGEROUS GOOD SAFETY GUIDE 				

3.12.2 The port operator should ensure that personnel involved in the handling or transport of dangerous cargoes are trained and practiced in the use of fire-fighting equipment in accordance with the requirements of the regulatory authority.

3.13 Environmental precautions

3.13.1 The port operator should ensure that dangerous cargoes are only handled in areas which comply with the requirements of the regulatory authority.

3.13.2 The port operator should ensure that any damaged package, unit load or cargo transport unit containing dangerous cargoes is dealt with in accordance with the requirements of the regulatory authority and is not transported or handled unless the dangerous cargoes have been properly repacked and are in all respects fit and safe for further transport and handling.

3.13.3 The port operator should ensure that, if necessary, any damaged package, unit load or cargo transport unit containing dangerous cargoes is removed to a designated area for such cargoes.

3.13.4 Dangerous cargo spilled on the pier / jetty are not swept or washed and thrown into the sea. These loads are prevented from going to the sea with rain water.

3.13.5 During the loading and unloading of bulk cargo to and from the vessel, necessary actions shall be taken to prevent the dumping of any load from the vessel or the dock into sea. In addition, these actions shall be taken for transshipment operations.

3.13.6 Necessary actions shall be taken so that soil, water or areas of water discharge is/are not contaminated with any hazardous materials handled at onshore facilities. Additionally, these actions shall be applied for the piping line used during the handling of hazardous materials and for areas with conveyor system.

3.13.7 The capability to remove any contaminated bilge water, dirty ballast, sludge, slop and load waste from the vessel shall be provided.

3.14 Pollution combating

3.14.1 The port operator should ensure that adequate equipment is available to minimize the damage in case of a spillage of dangerous cargoes.

3.14.2 The equipment includes petroleum dispersion preventive fences, condensate lids, absorbing and neutralizing agents as well as cleaning agents and portable collection basins.

3.14.3 The port operator should ensure that personnel involved in the transport and handling of dangerous cargoes are trained and practiced in the use of pollution combating equipment and facilities in accordance with the requirements of the regulatory authority.

3.15 Reporting of incidents

3.15.1 The port operator, within his area of responsibility, should ensure that, if an incident occurs during the handling of dangerous cargoes which may endanger the safety or security of persons, of ships within the port, of the port or of any other property, or the environment, the person having charge of the handling immediately causes the operation to be stopped, if it is safe to do so, and prevents it being resumed until appropriate safety measures have been taken. The port operator should require every member of his personnel to report, to the person having charge of the operation, any such incident they see to occur during the handling of dangerous cargoes.

3.15.2 For the purposes of responding quickly and effectively; the short and proper description of the event should be communicated to the emergency center as soon as possible to treat the injured personnel and mitigate any potential damage.

	Document No	Release Date	Revised No	Revised Date	Page Number
					27
	 DANGEROUS GOOD SAFETY GUIDE 				

3.15.3 The port operator should ensure that any incident involving dangerous cargoes which may endanger the safety or security of persons, or of ships within the port or of the port or of any other property or the environment is reported immediately to the port authority.

3.15.4 The port operator should ensure that any damaged or leaking package, unit load or cargo transport unit containing dangerous cargoes is reported immediately to the port authority and that suitable remedial action is taken.

3.16 Inspections

3.16.1 The port operator, where appropriate, should:

3.16.1.1 Check documents and certificates concerning the safe transport, handling, packing and stowage of dangerous cargoes in the port area at the time of receipt;

3.16.1.2 Check, where practicable, packages, unit loads and cargo transport units containing dangerous cargoes to verify that they are marked, labelled or placarded in accordance with the provisions of the IMDG Code and the appropriate national or international legal requirements applicable for the mode of transport and that unnecessary labels, placards and marks have been removed and that the cargo transport units have been loaded, packed and secured in accordance with the IMO/ILO/UN ECE Guidelines for Packing of Cargo Transport Units (CTUs);

3.16.1.3 Check freight containers, tank-containers, portable tanks and vehicles containing dangerous cargoes to ensure that they have a current safety approval plate in accordance with the International Convention for Safe Containers (CSC), 1972, as amended, when applicable, or have been approved in accordance with the relevant provisions of the IMDG Code or by a certification or approval system of an appropriate authority; and

3.16.1.4 Check, by external examination, the physical condition of each freight container, tank-container, portable tank or vehicle containing dangerous cargoes for obvious damage affecting its strength or packaging integrity and for the presence of any sign of leakage of contents.

3.16.2 The port operator should make such checks regularly to ensure implementation of the safety precautions in the port area and the safety of transport.

3.16.3 If any of the checks mentioned above reveal deficiencies which may affect the safe transport or handling of dangerous cargoes the port operator should immediately advise all parties concerned and request them to rectify all deficiencies prior to any further transport or handling of dangerous cargoes.

3.16.4 The port operator should ensure that every necessary support will be given to the port authority or any other person or institution entitled to carry out inspections when they intend to carry out an inspection of dangerous cargoes.

3.17 Hot work and other repair or maintenance work

3.17.1 The port operator should ensure that no repair or maintenance work resulting in non-availability of the emergency/fire equipment required by these recommendations is carried out at the port without prior permission of the port authority.

	Document No	Release Date	Revised No	Revised Date	Page Number
					28
	 DANGEROUS GOOD SAFETY GUIDE 				

3.17.2 The port operator and the company carrying out the repairs, after having consulted the master of a ship, where appropriate, should ensure that they are in possession of a permit to proceed issued by the port authority before any repair or maintenance work involving hot work, or any other such work which may lead to a hazard because of the presence of dangerous cargoes, is carried out.

3.17.3 A prior notice to be served for the estimated duration of hot work or the lack of equipment as a result of the need for permission shall allow all emergency response authorities, such as fire department, to make a satisfactory announcement to express their objection and recommend additional measures. In case of particular circumstances, such as any hot work to be performed in a hold or closed areas near a hold, the skilled personnel capable of determining whether specific safety measures are necessary shall perform a detailed field survey.

3.18 Entry into confined or enclosed spaces

3.18.1 The port operator should ensure that no person enters any enclosed space such as, for example, a cargo space, cargo tank, void space around such tank, cargo handling space, or other confined or enclosed space which has contained or may contain dangerous vapor or oxygen depleting cargoes, unless the space is free of dangerous vapor and not deficient in oxygen, and is certified to that effect by a responsible person trained in the use of the relevant equipment and sufficiently knowledgeable to interpret correctly the results obtained. The responsible person should record the measurements taken.

3.18.2 Where it is necessary for operational purposes to enter a space which cannot be freed of dangerous vapor within a reasonable time and which, therefore, can not be certified, or it is unlikely that the space will remain free of dangerous vapor, then entry should only be made by persons wearing a self-contained breathing apparatus and any other necessary protective equipment and clothing. The entire operation should be carried out under the direct supervision of a responsible person who should be provided with self-contained breathing apparatus, protective equipment and rescue harness. The breathing apparatus, protective and rescue equipment should not be of a type that could introduce a source of ignition into the space.

3.18.3 The port operator should ensure that entry into a space follows carefully established procedures which are contained in international codes and guides.

3.19 Fumigation of warehouses, sheds or cargo transport units

3.20 Contaminated wastes

3.20.1 The port operator should ensure that wastes contaminated with dangerous cargoes are immediately collected and disposed of in accordance with the requirements of the regulatory authority.

3.21 Alcohol and drug abuse

3.21.1 The port operator, within his area of responsibility, should ensure that no person under the influence of alcohol or drugs is allowed to participate in any operation involving the handling of dangerous cargoes.

3.21.2 Any such persons should always be kept clear of the immediate areas where dangerous cargoes are being transported or handled.

3.22 Weather conditions

	Document No	Release Date	Revised No	Revised Date	Page Number
					29
	 DANGEROUS GOOD SAFETY GUIDE 				

3.22.1 The port operator, within his area of responsibility, should not permit dangerous cargoes to be handled in weather conditions which may seriously increase the risk.

3.22.2 Any explosive and hazardous liquid bulk loads or any unprotected load, which reacts dangerously when in contact with water, shall not be carried in rainy weather involving thunderstorms.

3.23 Lighting

3.23.1 The port operator, within his area of responsibility, should ensure that areas where dangerous cargoes are handled or where preparations are being made to handle dangerous cargoes and access to such areas are adequately illuminated.

3.24 Handling equipment

3.24.1 The port operator, within his area of responsibility, should ensure that all equipment used in the handling of dangerous cargoes is suitable for such use and used only by skilled persons.

3.24.2 The port operator, within his area of responsibility, should ensure that all Cargo handling equipment is of an approved type where appropriate, properly maintained and tested in accordance with national and international legal requirements.

	Document No	Release Date	Revised No	Revised Date	Page Number
					30
	 DANGEROUS GOOD SAFETY GUIDE 				

3.25 Protective equipment

3.25.1 The port operator, within his area of responsibility, should ensure, when necessary, that a sufficient quantity of appropriate protective equipment is available to all personnel involved in the handling of dangerous cargoes.

3.25.2 Such equipment should provide adequate protection against the hazards specific to the dangerous cargoes handled and should be of an approved type or made in conformity with an approved standard.

3.26 Explosives

3.26.1 Dangerous cargoes of Class 1 (except those in Section 1.4 s) may only be allowed to enter the port area for direct shipment, or to enter the port area directly from ships, unless permitted by the administration.

3.26.2 The administration must establish specific requirements for handling and loading of explosives, taking into account existing hazards and population density and other related conditions around the port area.

3.26.3 The administration establishing these specific requirements must emphasize the fact that the classification of explosives and products, together with the compliance group duty and the appropriate Shipping name for the substance or product to be transported, is subject to approval by the competent authorities of the manufacturer country prior to shipment in accordance with the provisions of Section 2.1 of the IMDG Code.

3.26.4 The following precautions are taken into account when loading and unloading explosives.

3.26.5 Artificial Lighting

3.26.5.1 The only permitted mode of artificial lighting during loading operations involving Class 1 dangerous goods is electrical lighting, except for arc light (requirements for electrical equipment and cables are specified in Section 7.1 of the IMDG Code);

3.26.6 Radio and Radar

3.26.6.1 Class 1 cargoes (except those in section 1.4) are prevented from using radio and radar transmitting devices, except VHF transmitters whose output power does not exceed 25 W, on or near ships or cranes during loading and unloading operations. Explosives must not exceed a minimum safety distance of 2 meters.

3.26.6.2 Some of the Class 1 items include electromagnetic radiation-sensitive launch systems from external sources such as radios and radar. Therefore, all such devices must be powered/energized by controlling the equipment by opening the main control buttons to ensure that no power / electricity is supplied to the devices until the loading or unloading operation is complete.

3.26.7 Mechanical equipment used for stacking

3.26.7.1 All mechanical equipment used for stacking (whether electrical or not) should be checked as they are properly operated, comply with appropriate recognized standards and are maintained under technical care in accordance with the manufacturer's maintenance recommendation

3.26.8 Defective packaged goods

3.26.8.1 Any defective, leaking packaged packages affected by moisture or otherwise damaged should not be accepted for shipment. Repair of damaged or damaged packages on board should not be permitted.

3.26.9 Weather Protection

	Document No	Release Date	Revised No	Revised Date	Page Number
					31
	 DANGEROUS GOOD SAFETY GUIDE 				

3.26.9.1 Packaging containing Class 1 dangerous goods (which in some cases may worsen the danger) should be avoided from getting wet.

3.26.10 Safety

3.26.10.1 To ensure the safety of Class 1 dangerous goods, a responsible person should always be present when the covers are open. Unauthorized persons should never be allowed access to compartments containing stacked items of Class 1.

3.27 Signals

3.27.1 The regulatory authority should decide if and when a ship engaged in the transport or handling of certain specified dangerous cargoes in the port area, should exhibit by day or by night any special visual signals.

3.27.2 The specified dangerous cargoes should include:

3.27.2.1 bulk liquids with a flashpoint below 60°C closed cup;

3.27.2.2 bulk flammable and/or toxic gases; and

3.27.2.3 Explosives designated as Class 1 (except those in Section 1.4 s) are liquid desensitized explosives and solid desensitized explosives assigned to class 4.1; to the degree specified by the regulatory authority.

3.27.3 The reason for exhibiting a day or night signal is to advise maritime traffic and personnel within the port area about an increased hazard created by the presence of the dangerous cargoes. Vessels exhibiting such signals may be subject to the special requirements and special instructions of the port authority.

3.27.4 The following four scenarios should be considered:

3.27.4.1 the ship is moored or at anchor by day;

3.27.4.2 the ship is moored or at anchor at night;

3.27.4.3 the ship is under way by day; or

3.27.4.4 the ship is under way at night.

3.27.5 When practicable, a dedicated anchorage or port should be provided for vessels carrying dangerous cargoes requiring the exhibition of such signals. Special restrictions may be applied to:

3.27.5.1 access to the vessels;

3.27.5.2 radio and radar transmissions;

3.27.5.3 transiting the anchorage; and

3.27.5.4 passing of ships moored or anchored.

3.27.6 Port authorities should give consideration to the separation of ships under way exhibiting the signals. The port authority may also impose specific separation distances and regulate the movement of vessels to avoid the passing of such ships in narrow channels or at bends. Where signals are to be exhibited, they should be:

3.27.6.1 by day flag “B” of the International Code of Signals; and

3.27.6.2 by night an all-round fixed red light.

3.28 Communications

3.28.1 The port authority should ensure that every ship engaged in the transport of dangerous cargoes can maintain effective communications with the port authority. When appropriate and practicable such communications should be carried out by VHF in accordance with the provisions of SOLAS regulation IV/7 and complying with the performance standards set out in IMO Assembly resolution A.609(15) and the requirements of the regulatory authority.

	Document No	Release Date	Revised No	Revised Date	Page Number
					32
	DANGEROUS GOOD SAFETY GUIDE				

3.29 Areas

3.29.1 Dangerous cargo areas

3.29.1.1 Dangerous cargo areas should, where possible, be located so that management and/or security personnel may keep them under continuous observation. Otherwise, an alarm system may be provided or the spaces inspected at frequent intervals.

3.29.1.2 The spaces should enable an adequate segregation of dangerous cargoes in accordance with the legal requirements of the regulatory authority.

3.29.1.3 Dangerous cargo areas should have separate areas with all necessary facilities appropriate to the hazards emanating from the cargoes to be kept. Where appropriate these facilities should include separate ventilation, drainage, fire resisting walls, ceilings, etc.

3.29.1.4 Those areas where hazardous materials are handled shall be furnished with necessary equipment and devices to prevent potential harmful effects of such hazardous materials.

3.29.1.5 The areas where hazardous materials are handled shall be provided with facilities of entrance to and exit from the same to allow for response to emergencies or the access roads to those units carrying loads that contain hazardous materials shall be kept open, if any hazardous materials are stowed or stored on the entire site and the site shall be furnished with systems that are capable of providing emergency facilities for rapid response.

3.29.2 Container stacking areas /lorry parking areas

3.29.2.1 Separate areas may be designated for specific dangerous cargoes.

3.29.2.2 Segregation requirements of the regulatory authority should be met when designating areas.

3.29.2.3 Care should be taken that, in case of an emergency, adequate access is provided for handling equipment, emergency services, etc.

3.29.2.4 Adequate emergency facilities should be provided. These should be appropriate to the hazards of the dangerous cargoes to be handled.

3.29.3 Fumigation areas

3.29.3.1 Separate areas should be provided or designated for ships and/or cargo transport units to be fumigated.

3.29.3.2 Whenever practicable, these areas should be fenced off to prevent the entry of unauthorized persons and should have facilities for watchmen. The facilities should include adequate means of communication.

	Document No	Release Date	Revised No	Revised Date	Page Number
					33
	DANGEROUS GOOD SAFETY GUIDE				

3.29.4 Special areas for damaged dangerous cargoes and wastes contaminated with dangerous cargoes

3.29.4.1 Special areas for damaged dangerous cargoes and wastes contaminated with dangerous cargoes should be provided, where damaged dangerous cargoes may be kept and repacked or contaminated wastes separated and kept until their disposal.

3.29.4.2 Such areas should, where appropriate, be covered, have a sealed floor or ground, separate drainage systems with shut-off valves, sumps or basins and means to discharge contaminated water to special facilities in order to safeguard the port area and the environment.

3.29.4.3 Such areas should be fenced off to prevent the entry of unauthorized persons and should have facilities for watchmen and the facilities should include adequate means of communication.

3.29.5 Repairing/cleaning facilities

3.29.5.1 Where repair or cleaning facilities for ships or cargo transport units are provided, they should be situated well away from any area where dangerous cargoes are transported or handled. This should not preclude the carrying out of minor voyage repairs on ships at cargo handling ports or cleaning of cargo tanks at tanker terminals.

3.29.5.2 Cleaning facilities should be designated and constructed to protect the environment when environmentally hazardous substances are used or are otherwise involved, in the cleaning process.

3.29.6 Purchase activities

3.29.6.1 The facilities must be properly equipped for the reception and dispatch of bilge water, waste, ballast and slop contaminated with hazardous cargoes. If exempt, it must notify the relevant agencies.

3.30 Training

3.30.1 The personnel who are in charge of actions and operations for the loading/unloading of hazardous materials at the onshore facility shall be provided with training on emergencies (fire, explosion, leakage etc.) and response, occupational health and safety, ISPS code security awareness and safety in line with their job descriptions and fields of work.

4. CLASSIFICATION OF DANGEROUS GOODS, HANDLING, LOADING / UNLOADING, HANDLING, SEPARATION, STACKING AND STORING

4.1 Classification of Dangerous Goods

4.1.1 Types of Dangerous Goods

Dangerous goods based on their origin and characteristics can be classified as follows;

Oil and by-products - fire and explosion is the main risk (benzenes, liquefied petroleum gas and other fuels)

	Document No	Release Date	Revised No	Revised Date	Page Number
					34
	 DANGEROUS GOOD SAFETY GUIDE 				

Chemical products - (Industrial, pharmaceutical and agricultural) manufactured and loaded either as final product for consumption or as by-products for industrial use. The latter are most of the dangerous goods transported, and if not properly handled, could cause great damage to people, transport units and the environment.

Minerals - such as coal, sulfur, mineral concentrates and other metals or asbestos which can cause different illnesses, injuries, intoxication or fires.

Products of animal or vegetable origin - as fishmeal, pressed cakes of oleaginous seeds and cotton, which can also cause spontaneous combustion, fire or explosions,

Radioactive materials - used in a variety of industrial and medical processes, as well as for military applications, which, in high doses could cause immediate harm, or even in small doses could cause cancer and other illnesses if exposed to people for prolonged periods of time.

Many of the substances from Class 1 to Class 9 are deemed marine pollutants. A marine pollutant is defined as “any substance that will degrade the aquatic organisms that live in the water.

Prior to stowage, segregation, marking, labeling and storing dangerous goods safely, those handling dangerous goods must know exactly what hazards these dangerous goods pose to the user. The term ‘hazard’ in this text means a source or a situation with a potential harm with regard to People, Environment, Asset and Reputation (PEAR Concept).

All chemicals are subject to the code and are assigned to one of the classes 1 – 9 according to the hazard or the most predominant hazards they present.

4.1.2 Classification of Dangerous Goods

The classification is made by the consignor/shipper or by the appropriate competent authority. The IMDG Code classifies dangerous goods as follows (simplified form):

Class 1: Explosives

Section 1. 1: Substances and objects in hazard of mass explosion

Section 1.2: Substances and objects which are not dangerous for mass explosion but are at risk of scattering

Section 1.3: Substances and objects that are a fire hazard, a small explosion or a small scattering Hazard, or both, but not a mass explosion hazard.

Section 1.4: Substances and objects with no apparent danger

	Document No	Release Date	Revised No	Revised Date	Page Number
					35
	DANGEROUS GOOD SAFETY GUIDE				

Section 1.5: Substances with a mass explosion hazard but very little sensitivity

Section 1.6: Highly insensitive objects with no danger of mass explosion

Class 2: Gases

Class 2.1: Flammable gases

Class 2.2: Non-flammable, non-toxic gases

Class 2.3: Toxic gases

Class 3: Flammable liquids

Class 4: Flammable solids; substances liable to spontaneous combustion; substances which, in contact with water, emit flammable gases

Class 4.1 : Flammable solids, self-reactive substances and solid desensitized explosives

Class 4.2 : Substances liable to spontaneous combustion

Class 4.3 : Substances which, in contact with water, emit flammable gases

Class 5 : Oxidizing substances and organic peroxides

Class 5.1 : Oxidizing substances

Class 5.2 : Organic peroxides

Class 6 : Toxic and infectious substances

Class 6.1 : Toxic substances

Class 6.2 : Infectious substances








Class 7 : Radioactive material

Class 8 : Corrosive substances










Class 9 - Miscellaneous dangerous substances and article

The numerical order of classes and sections does not indicate the degree of danger.









	Document No	Release Date	Revised No	Revised Date	Page Number
					36
	DANGEROUS GOOD SAFETY GUIDE				

Class 1		
	1	Explosive substances and articles used to produce explosions or pyrotechnic effect
Sub-Classes		
	1.1	Explosives with a mass explosion hazard
	1.2	Explosives with a severe projection hazard
	1.3	Explosives with a fire, blast or projection hazard but not a mass explosion hazard
	1.4	Explosives with a minor fire or projection hazard
	1.5	An insensitive substance with a mass explosion hazard
	1.6	Extremely insensitive articles

	Document No	Release Date	Revised No	Revised Date	Page Number
					37
	DANGEROUS GOOD SAFETY GUIDE				

Class 2		
	2.1	Flammable gas
	2.2	Non-Flammable, compressed gas
	2.3	Toxic or poisonous gas
Class 3		
	3	Flammable liquid
Class 4		
	4.1	Flammable solids
	4.2	Spontaneously combustible solids
	4.3	Combustible solids when in contact with water
Class 5		
	5.1	Oxidizer
	5.2	Organic peroxide (5.2 new ADR 2007)

	Document No	Release Date	Revised No	Revised Date	Page Number
					38
	DANGEROUS GOOD SAFETY GUIDE				

Class 6		
	6.1	Toxic substances
	6.2	Infectious substances
Class 7		
	I	Category I – White (symbol 7A)
	II	Category II – Yellow (symbol 7B)
	III	Category III – Yellow (symbol 7C)
	Fissile	Criticality safety index label (symbol 7E)
Class 8		
	-	Corrosive
Class 9		
	-	Miscellaneous dangerous compounds

4.2 Dangerous Goods Packing and Packages

	Document No	Release Date	Revised No	Revised Date	Page Number
					39
	 DANGEROUS GOOD SAFETY GUIDE 				

Markings, labels and/or placards on products are all channels of communication to the user.

These communication channels will tell the user the characteristics of a consignment or product. The IMDG Code provides clear procedures related to authorization of consignments as well as advance notification, markings, labels and documentation (by manual, electronic data processing or electronic data interchange techniques and placarding).

The code specifies clearly that no person may offer to transport dangerous goods unless the goods are properly marked, labeled, placarded, described and certified on a document. Those who are transporting dangerous goods must indicate the UN Number and proper shipping name clearly on the consignment. In the case of marine pollutants, the word “marine pollutant” must be on the document accompanying the consignment. This requirement is particularly important in the case of an accident involving these goods, in order to determine what emergency procedures are necessary to deal properly with the situation. In the case of marine pollutants, the captain of the vessel needs to comply with the requirements of MARPOL 73/78.



Packages

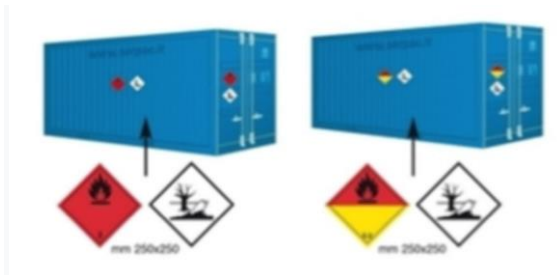


Vehicles carrying explosives

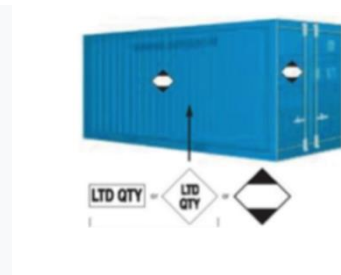


Packaged hazardous substance

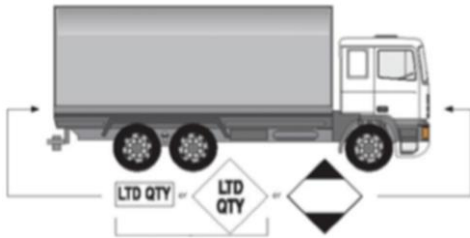
	Document No	Release Date	Revised No	Revised Date	Page Number
					40
	DANGEROUS GOOD SAFETY GUIDE				



Container carrying hazardous cargo



Limited quantity



Limited quantity

Markings and Labels on the packages should;

- Be visible and readable at first sight,
- The labels and markings on the package/good will be readable even after it stays in the sea for three months.
- Be placed outside of the package surface which the color of the good's/package's surface will have a contrast color with the label/marking.
- The signs/labels will not be used together with other signs/labels which will decrease the efficiency of the current marking/labeling.

Each package must contain and have labels of precautionary information related with the goods that is under carriage.

	Document No	Release Date	Revised No	Revised Date	Page Number
					41
	DANGEROUS GOOD SAFETY GUIDE				

Name of the good

- UN number
- Signs of threat and hazards
- Marine Pollutant information sign (once applicable)

Minimum character lengths of UN NUMBERS

- Basically to be 12 mm
- 6 mm for the cargoes of 30 L or 30 KG or more
- In the appropriate length for cargo smaller than 5 kg/lt



Label:



UN Number: UN 3077

PSN: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (AZO COMPOUND)

Packages and IBC's



Label:



UN Number: 1992

PSN: FLAMMABLE LIQUID, TOXIC, N.O.S., (ETHYL ACETATE / TRICHLOROBTENE)

Should be marked with the correct PSN (= PSN: proper shipping name) and number, and wherever applicable the “Marine pollutant sign” to be placed/labeled properly.

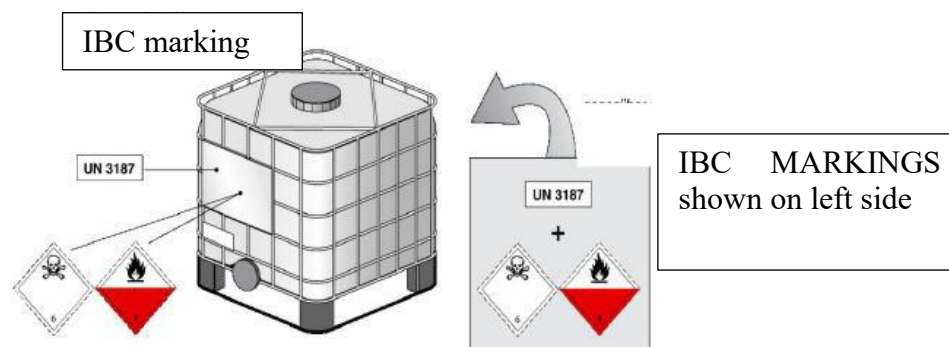
The IBC's and packages/containers which the capacity over 450 L; both sides should be marked clearly.

The empty and cleaned PACKAGES, should be marked as they are loaded with the related dangerous substance.

Scrap and unused packages, will be additionally marked as “SALVAGE” (HURDA) mark

Salvage Packages and pressurized salvage packages ;

These to be marked as “SALVAGE” sign with a letter length of minimum 12mm.



The features of Marine Pollutant Hazard Sign

	Document No	Release Date	Revised No	Revised Date	Page Number
					42
	DANGEROUS GOOD SAFETY GUIDE				



Marine Pollutant Hazard Sign;

- Should be labeled and placed next to the other IMDG signs
- must pay attention to create contrast of color with the package. Once sticker is used, this should be black and white.

▪ the label should have at least 100 mm side length (except over the small sized packages where small labels can be used)

4.3 Dangerous Goods Placards, Plaque, Marking and Labels

The IMDG Code recommends a system based on labels and placards designed especially so that all who work close to this type of cargo will be able to recognize, preferably at first sight, the nature of the risks entailed by these substances, whatever their packaging might be.

4.3.1 Labels

The IMDG Code states that all packaging, packages and drums carrying dangerous goods must be labeled. the labels are in the shape of a rhombus in white, orange, blue, green or red, or a combination of these colors. Symbols illustrating the danger of the class are also warranted. In general, each label is divided into two parts, the bottom half and the top half. The top half is for the symbol of the class of the good(s), and the lower half is for the text, class or division number. The minimum dimensions of labels are 10 cm x 10 cm. Labels must be firmly adhered to and placed on the package so that it can easily be seen. The quality of the labels must be such so they do not deteriorate outdoors and remain unaltered during the complete transport period and at last three months in the sea.

Due to the fact that dangerous goods can pose more than one risk, it is also necessary to use “secondary risk labels”. These labels are the same as the ones showing the primary risk, regarding their color, shape and symbols. Even though the IMDG Code says nothing to this effect, in some countries the class number is only indicated in the primary risk label, and that the secondary risk label does not include the class number. This is an effective way to distinguish between both.

4.3.2 Placards

The IMDG Code determines that all “cargo transport units” containing dangerous goods must be placarded. In this context, cargo transport units are containers, containers for liquids, tank vehicles, vehicles transporting goods by land, railway wagons with water tanks, good tanks destined for intermodal transport. Placards have the same shape, colors and symbols as the labels, but their dimension is 25 x 25 cm. Containers carrying more than 4000 kilograms of dangerous goods, and all tanks for liquids and gases must have the “United Nations number”. The UN number has four

	Document No	Release Date	Revised No	Revised Date	Page Number
					43
	 DANGEROUS GOOD SAFETY GUIDE 				

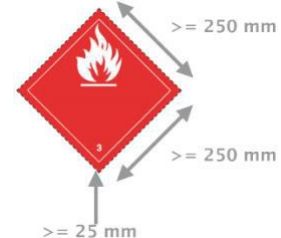
digits and is the number assigned by the United Nations to all goods identified and classified as dangerous.

Containers carrying dangerous goods must display at least one placard on each side and one on each end of the unit (this is to say, on its four sides). Rail wagons must be placarded on at least both sides.

Dangerous goods containers, semi-trailers and portable tanks must be placarded on all four sides. Road vehicles must display appropriate placards on both sides as well as the Rear.

Labeling and marking of CARGO TRANSPORT UNIT's (CTU)

- While dangerous goods are carried inside the CTU' (cargo transport units), the transport units will be labeled with large signs if the respective signs/labels over the package is not readable clearly.
- Placards must contain information for primary and additional risks of the dangerous good.
- Placards must be resistant to the sea conditions for minimum of 3 months.
- All placards, orange panels, signs and labels must be dismantled after the Dangerous Cargo and residues have been extracted, discharged.
- Placards must be in the size of not less than 250 mm x 250 mm, The line inside the edge needs to be parallel and from there to the edge of the etiquette it will be 12,5mm and the numbers of the dangerous cargo classification numbers should not be less than 25mm.



Methods of Placards in the CTU

The CTU's which contains dangerous goods and its residues should carry following placards clearly visible;

- In a Container, half trailer or on a portable tank with a cappacitiy of less than 3000 liters: Each letaral side and front edge to have one placard or alternatively to be marked with placards in the opposite sides.
- In a multiple tank where there are more than 1 type of dangerous goods and its residues; to have placards of respective placards on each side of the respective tank
- Any other CTU: at least on 2 edges and at the back of the unit.

Marking of cargo transport units

Display of the appropriate shipping name

The proper shipping name of the contents shall be durably marked on at least two edges of:

- Tank transport units containing dangerous cargo;
- Bulk containers containing dangerous goods or

	Document No	Release Date	Revised No	Revised Date	Page Number
					44
	 DANGEROUS GOOD SAFETY GUIDE 				

• Plakart, another cargo transport unit containing a single type of packaged dangerous cargo that does not require a UN number or marine pollutant mark. UN number is displayed without alternative.

The proper shipping name shall be indicated in characters not less than 65 mm high. The appropriate shipping name will be in a contrasting color with the background. This height may be reduced to 12 mm for portable tank containers with a capacity of less than 3000 liters.

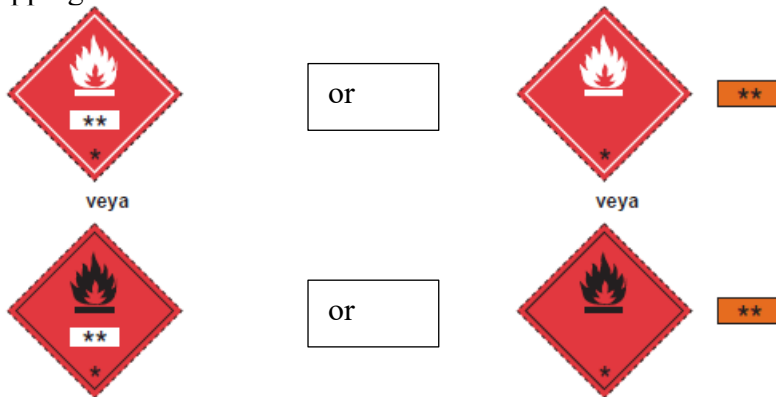
Display of UN numbers

- Bulk cargo: X4
- Tank transport: X4
- Container (Packaged): X4 with a gross mass of more than 4000 kg
- Bulk Container: X4

UN numbers of substances shall be indicated by black numbers not shorter than 65 mm and shall comply with one of the following situations:

On a white background, on the area under the pictorial symbol and on the class number and letter of compatibility group, in a way that does not obscure or distract other necessary label elements (see 5.3.2.1.3), or

UN number, if no placard or marine pollutant mark is required, next to each placard or marine pollutant marking (see 5.3.2.1.3), on an orange rectangular panel not less than 120 mm high and 300 mm wide and with a 10 mm black border line. It will be placed right next to the appropriate shipping name.

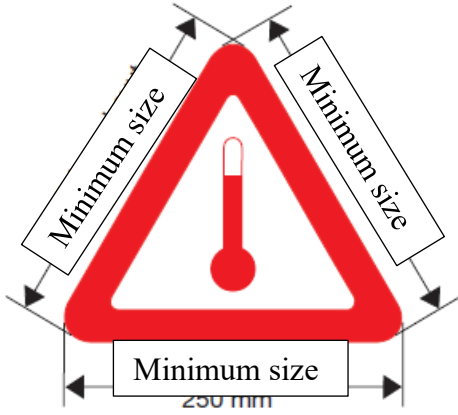


* location of class or section number

** Location of UN number

Temperature raised Cargo transport units containing a substance transported or offered for carriage in a liquid state at or above 100 °C or in a solid state at a temperature of 240 °C or above shall bear the following marking on each side and at each end.

	Document No	Release Date	Revised No	Revised Date	Page Number
					45
	DANGEROUS GOOD SAFETY GUIDE				



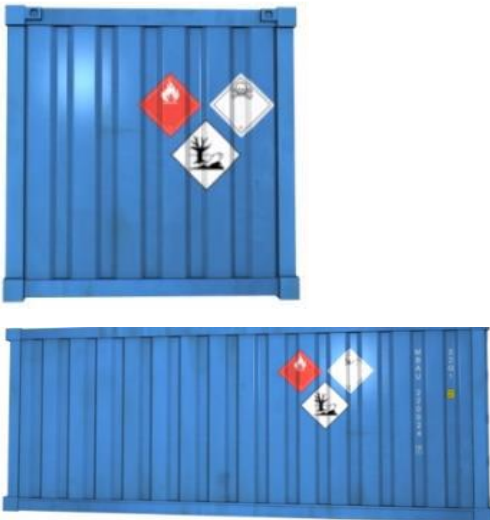
The mark shall be in the form of an equilateral triangle. The color of the sign will be red. The minimum size of the sides shall be 250mm, except for portable tanks with a capacity of less than 3000L, the side dimensions of which can be reduced by 100mm. Where dimensions cannot be defined, all features shall be in proper proportion to these shown. In addition to the elevated temperature mark; The maximum expected temperature of the substance to be reached during transport shall be marked on both ends of the portable tank or insulation jacket immediately next to the elevated temperature mark and durable with characters at least 100 mm high.

Example: Marking & labeling of portable tanks



Etiketler:	
4x	At both side and at the edge of unit
UN numarası:	
4x	At both side and at the edge of unit
Tam gönderi ismi:	
2x	At least 2 sides


Example: Marking & labeling of freight containers



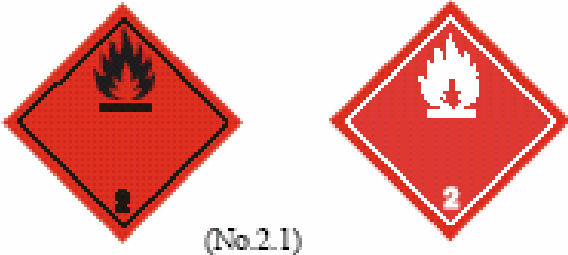


Eğer ki, **bir** Tehlikeli Madde 4 ton brüt kütleden fazla ağırlığa sahipse:

Etiketler:	
4x	Her iki tarafa ve ünitelerin iki ucuna birer adet
UN numarası:	
4x	Her iki tarafa ve ünitelerin iki ucuna birer adet
Tam Gönderi ismi:	
Gerekli değil	

	Document No	Release Date	Revised No	Revised Date	Page Number
					47
	DANGEROUS GOOD SAFETY GUIDE				



	Division 1.4 / 1.5 / 1.6 Background –orange color Subclass numbers – in black color (approximately 30mm x 5 mm in labels of 100 mm x 100 mm) * Location of Compatibility Group Number 1 – in the bottom corner
---	---

Class 2 – Gases


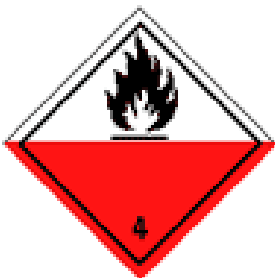


	Division 2.1 Flammable Gases Symbol – Flame in black or white Background– in red color Text – Flammable Gas (optional) Number 2 – in the bottom corner
	Division 2.2 Non-flammable gases Symbol – Gas cylinder in black or white color Background – in green color Text – Non flammable compressed gas (optional) Number 2 – in the bottom corner
	Division 2.3 Toxic Gases Symbol – skull and crossbones in black color Background – in white color Text – Toxic (optional) Number 2 – in the bottom corner

Class 3 – Flammable Liquids

	Document No	Release Date	Revised No	Revised Date	Page Number
					48
	DANGEROUS GOOD SAFETY GUIDE				



 	<p>Symbol – flame in black and white color</p> <p>Background – red color</p> <p>Text – Flammable Liquid (optional)</p> <p>Number 3 – in the bottom corner</p>
---	---

Class 4 – Flammable Solids ; substances liable to spontaneous combustion; substances which, in contact with , in contact with water emit flammable gases

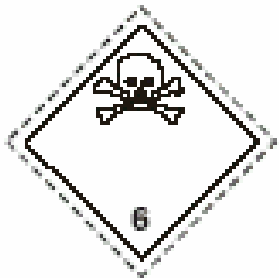

	<p>Division 4.1 Flammable Solids</p> <p>Symbol– flame in black color</p> <p>Background –white with seven red vertical stripes</p> <p>Text – Flammable Solid</p> <p>Number 4 – In the bottom corner</p>
	<p>Division 4.2 Substances liable to spontaneous combustion</p> <p>Symbol – flame in black color or white color</p> <p>Background – blue color</p> <p>Text – Spontaneous combustion substances (optional)</p> <p>Number 4 – in the bottom corner</p>
 	<p>Division 4.3 Substances which, in contact with water, emit flammable gases</p> <p>Symbol – flame in black or white color</p> <p>Background – blue color</p> <p>Text – Substances which, in contact with water, emit flammable gases (optional)</p> <p>Number 4 – in the bottom corner</p>

	Document No	Release Date	Revised No	Revised Date	Page Number
					49
	DANGEROUS GOOD SAFETY GUIDE				

Class 5 – Oxidizing Substances or Organic Peroxides




 <p>5.1</p>	<p>Division 5.1 Oxidant Substances Symbol – flame with circle in black color Background – yellow color Text – Oxidizing Substance (optional) Number 5.1 – in the bottom corner</p>
	<p>Division 5.2 Organic Peroxides Symbol – flame in white color Top Half –red Bottom Half – yellow Text – Organic Peroxide (optional) Number 5.2 – in the bottom corner</p>

Class 6 – Toxic substances or Infectious Substances

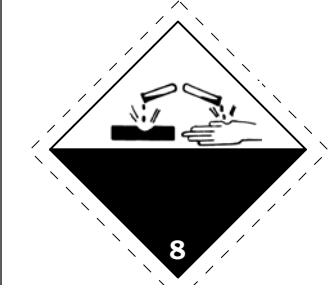
	<p>Division 6.1 Toxic Substances Symbol – black skull and crossbones Background – white color Text – Toxic (optional) Number 6 – in the bottom corner</p>
	<p>Division 6.2 Infectious Substances Symbol – three crescents superimposed on a circle and inscriptions in black Background – white color Text – Infectious substance, notify Public Health Authority (optional) Number 6 – In the bottom corner</p>

	Document No	Release Date	Revised No	Revised Date	Page Number
					50
	 DANGEROUS GOOD SAFETY GUIDE 				

Class 7 – Radioactive Materials

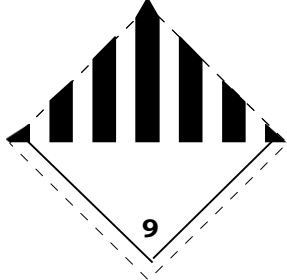
	<p>Category I – White Symbol – trefoil in black color Background – white color Text (mandatory) in black – in the lower half of the label “Radioactive I”, “Contents...”, “Activity...” and “Transport Index” box Number 7 – in the bottom corner</p>
	<p>Category II – Yellow Symbol – trefoil in black color Background – the upper half in yellow color with white borders, the lower half in white Text in black – in the lower half of the label “Radioactive II”, “Contents...”, “Activity...” and “Transport Index” box Number 7 – in the bottom corner</p>
	<p>Category III – Yellow Symbol – trefoil in black color Background – the upper half in yellow color with white borders, the lower half in white Text in black – in the lower half of the label “Radioactive III”, “Contents...”, “Activity...” and “Transport Index” box Number 7 – in the bottom corner</p>

Class 8 – Corrosive Substances


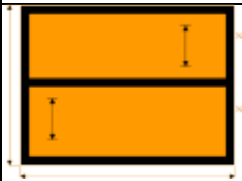

	<p>Symbol – Liquids falling from two test tubes onto a hand and a black piece of metal Background – Upper half in white color and lower half in black with white borders Text – Corrosive (optional) Number 8 – In the bottom</p>
---	--

	Document No	Release Date	Revised No	Revised Date	Page Number
					51
	 DANGEROUS GOOD SAFETY GUIDE 				


Class 9 – Miscellaneous Dangerous Substances and Articles Potentially Damaging to the Environment

	<p>Symbol – seven vertical bars in black in the upper half Background – in white color Number 9 – In the bottom corner</p>
---	---

Other Labels

	<p>Indicating elevated temperature (liquid state at a temperature equal to or exceeding 100o C, in a solid state at a temperature equal to or exceeding 240 oC)</p>
	<p>Orange-colored plates, with hazard-identification number and UN Number</p>
	<p>Orientation arrows, black or red color</p>

Placards for Marine Pollutants

	<p>Packages and cargo transport units containing dangerous substances which are classified by the IMDG Code as “marine pollutants”, must have the markings shown here, which must be durable. They must be placed close to the risk labels or risk placards of the goodsgoods. The dimensions of the marine pollutant markings must be a minimum of 10 cm per side for packages and 25 cm per side for cargo transport units.</p>
---	--

	Document No	Release Date	Revised No	Revised Date	Page Number
					52
	 DANGEROUS GOOD SAFETY GUIDE 				

4.4 Signs and Packing Groups of Dangerous Goods

4.4.1 Packing Groups, Classifying Criteria

The risks presented by dangerous goods in maritime transport are related to their packaging, therefore it must be safe, well designed and manufactured and in good condition. It is very unlikely you will suffer injuries due to this cargo, but if the cargo is damaged, it is possible for dangerous substances or vapors to be released.

The packages/containers must comply with the following requirements:

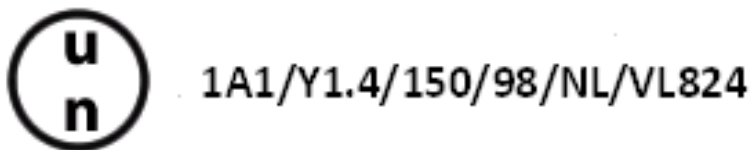
- Must not be affected by the cargo it contains
- Must be strong enough to endure the rough treatment and risks involved in maritime transport
- Must be able to endure rain, wind and sea water
- Must be practical and adequate for the cargo they carry
- Must be in good condition
- Must be correctly marked, label and signposted

For packing purposes, dangerous goods belonging to all classes, except for class 1, 2, 6.2 and 7 have been divided into three “packing groups” depending on the degree of danger they represent:

- Packing Group I – High level of danger
- Packing Group II – Medium level of danger
- Packing Group III – Low level of danger

4.4.2 UN Packaging and Approval Marking

Most packages also need to bear the UN packaging approval mark confirming that the packaging has been tested and approved in accordance with relevant United Nations performance standards. Example below:



4.5 Separation Tables on Board and Port According to the Class of Dangerous Goods

	Document No	Release Date	Revised No	Revised Date	Page Number
					53
	 DANGEROUS GOOD SAFETY GUIDE 				

One of the most important aspects of managing the transport of dangerous goods is the stowage, and segregation of these goods. Hazardous substances must not be stored with goods which are liable to interact and cause danger.

Incompatible hazardous substances must be adequately separated from each other during transport and storage. Improper stowage or segregation of dangerous goods may result in the release of toxic fumes, fire, spill and degradation of the product's quality. For this reason the IMDG Code has provided provisions in Volume 1 Part 7 titled "Provisions Concerning Transport Operations", which focuses on stowage and segregation.

4.5.1 Principles of segregation and stowage

The following issues may contribute towards major chemical accidents during stowage and segregation:

- Failure to understand the nature of the substance handled
- Failure of quality assurance – container inspection certificates
- Insufficient recording of chemical register inventories at different terminal locations
- Insufficient labeling and recording of chemicals
- Poor housekeeping – firefighting equipment not available in work area

The IMDG Code requires dangerous goods to be stored and segregated according to the hazard, class and compatibility. The code also provides detailed information on these important factors in terms of where dangerous goods should be stowed and how they should be separated or segregated from other cargoes.

Although the IMDG Code provides detailed information on ship stowage, the requirements can also be applied to storage ashore and even to container packing. The requirement offers a framework for port authorities when preparing their regulations for the safe transport of handling and storage of dangerous goods in ports. Dangerous goods which have to be segregated from each other shall not be transported in the same cargo transport unit.

4.5.2 IMDG Code Segregation, Stowage and Dangerous Goods List

	Document No	Release Date	Revised No	Revised Date	Page Number
					54
	 DANGEROUS GOOD SAFETY GUIDE 				

General segregation is applied to all cargo spaces on deck or under deck of all types of ships and cargo in transport units and incompatible goods shall be segregated from one another. For the purpose of segregation, the IMDG Code has grouped together similar chemical properties in the dangerous goods list. In the dangerous goods list, the group substances are referred as follows:

1. Acids
2. Ammonium Compound
3. Bromates
4. Chlorates
5. Chlorites
6. Cyanides
7. Heavy metals and their salts
8. Hypochlorite
9. Lead and its compounds
10. Liquid halogenated hydrocarbons
11. Mercury and mercury compounds
12. Nitrites and their mixtures
13. Perchlorates
14. Permanganates
15. Powdered metals
16. Peroxides
17. Azides
18. Alkalis

If substances are shipped under Not Otherwise Specified (N.O.S.) entries, the shipper will decide the appropriate segregation group.

In the IMDG code Volume 2 under column 16 of the numerical list of dangerous goods, the stowage conditions for each one of the dangerous goods listed can be found. Also, in this column, there is information on stowage related to sleeping, food, solutions and mixtures areas, etc. For example, the product “ALLYL BROMIDE UN No 1099”, column 16 indicates “Category B, far from living quarters.”

In the following paragraph the five stowage categories stipulated by the IMDG Code are described.
Stowage Categories

Category	A	B	C	D	E
----------	---	---	---	---	---

	Document No	Release Date	Revised No	Revised Date	Page Number
					55
	 DANGEROUS GOOD SAFETY GUIDE 				

Cargo ship carrying no more than 25 passengers	On deck or below deck	On deck or below deck	On deck only	On deck only	On deck or below deck
Passenger ships carrying more than 25 passengers	On deck or below deck	On deck only	On deck only	Prohibited	Prohibited

There are 5 categories for ship stowage:

Stowage category 01	Cargo ship (up to 12 passengers) Passenger ship	On deck or under deck in closed cargo transport
		On deck or under deck in closed cargo transport
Stowage category 02	Cargo ship (up to 12 passengers) Passenger ship	On deck or under deck in closed cargo transport
		On deck in closed cargo transport or in a closed cargo transport under deck in accordance with 7.1.4.4.5
Stowage category 03	Cargo ship (up to 12 passengers) Passenger ship	On deck or under deck in closed cargo transport
		It is prohibited except in accordance with 7.1.4.4.5.
Stowage category 04	Cargo ship (up to 12 passengers) Passenger ship	On deck in closed cargo transport or in a closed cargo transport under deck, it is prohibited except in accordance with 7.1.4.4.5.
Stowage category 05	Cargo ship (up to 12 passengers) Passenger ship	Only on deck in the closed cargo transport
		It is prohibited except in accordance with 7.1.4.4.5.

In brief, the IMDG Code establishes a system whereby dangerous goods can be stowed in a safe way, considering their compatibility with other types of cargo and therefore preventing further damage in case of accidents.

Mastering the techniques on how to stow dangerous goods correctly on board ships is fundamentally the responsibility of the Ship Planner. Port Terminals are not concerned with planning of the stowage of dangerous goods on board; they are only responsible of stowing the cargo in the positions indicated in the ships plan, which is provided by the Shipping Line through the respective agencies.

	Document No	Release Date	Revised No	Revised Date	Page Number
					56
	 DANGEROUS GOOD SAFETY GUIDE 				

4.6 Separation distances and separation terms for hazardous materials applicable storage at storage area

4.6.1 Separate Storage

The IMDG Code defines four segregation terms:

1. **“Away from”** (the minimum separation between two incompatible goods)
2. **“Separated from”**
3. **“Separated by a complete compartment or hold from”**
4. **“Separated longitudinally by an intervening complete compartment or hold from”** (this is the maximum separation between two incompatible goods)

The general provisions regarding segregation between different classes of dangerous goods can be found in the code in the following Segregation Table:

SINIF		1.1 1.2 1.5	1.3 1.6	1.4	2.1	2.2	2.3	3	4.1	4.2	4.3	5.1	5.2	6.1	6.2	7	8	9
Explosives	1.1, 1.2, 1.5	*	*	*	4	2	2	4	4	4	4	4	4	2	4	2	4	X
Explosives	1.3, 1.6	*	*	*	4	2	2	4	3	3	4	4	4	2	4	2	2	X
Explosives	1.4	*	*	*	2	1	1	2	2	2	2	2	2	X	4	2	2	X
Flammable gases	2.1	4	4	2	X	X	X	2	1	2	X	2	2	X	4	2	1	X
Non-toxic, non-flammable gases	2.2	2	2	1	X	X	X	1	X	1	X	X	1	X	2	1	X	X
Toxic gases	2.3	2	2	1	X	X	X	2	X	2	X	X	2	X	2	1	X	X
Flammable liquids	3	4	4	2	2	1	2	X	X	2	1	2	2	X	3	2	X	X
Flammable solids (including self-reactive substances and solid desensitized explosives)	4.1	4	3	2	1	X	X	X	X	1	X	1	2	X	3	2	1	X
Substances liable to spontaneous combustion	4.2	4	3	2	2	1	2	2	1	X	1	2	2	1	3	2	1	X
Substances which, in contact with water, emit flammable gases	4.3	4	4	2	X	X	X	1	X	1	X	2	2	X	2	2	1	X
Oxidizing substances (agents)	5.1	4	4	2	2	X	X	2	1	2	2	X	2	1	3	1	2	X
Organic peroxides	5.2	4	4	2	2	1	2	2	2	2	2	2	X	1	3	2	2	X
Toxic substances	6.1	2	2	X	X	X	X	X	X	1	X	1	1	X	1	X	X	X
Infectious substances	6.2	4	4	4	4	2	2	3	3	3	2	3	3	1	X	3	3	X
Radioactive material	7	2	2	2	2	1	1	2	2	2	2	1	2	X	3	X	2	X
Corrosive substances	8	4	2	2	1	X	X	X	1	1	1	2	2	X	3	2	X	X
Miscellaneous dangerous substances and articles	9	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

(This table is applied to unitized dangerous goods; this is to say, in pallets, drums, boxes and crates and other similar packaging. It is not applied to containers carrying dangerous goods)

Numbers and symbols relate to the following terms as defined in this chapter:

1	Away from	3 meters
2	Separated from	6 meters
3	Separated by a complete compartment or hold from	12 meters

	Document No	Release Date	Revised No	Revised Date	Page Number
					57
	 DANGEROUS GOOD SAFETY GUIDE 				

4	Separated longitudinally by an intervening complete compartment or hold from	24 meters
X	The segregation, if any, is shown in the Dangerous Goods List	-

Explosives require special segregation in accordance with the compatibility group. Explosives which have the same letter can be stowed together, whatever their class subdivision may be. Since the properties of the substances, materials or articles of a same Class can be very different to each other, in each and every case it will be necessary to consult the Dangerous Goods list previously, to determine the applicable specific segregation provisions.

4.6.2 Segregation within the Cargo Transport Units

Dangerous goods which need to be segregated from each other must not be stowed in the same cargo transport unit (container). Nevertheless, goods which require to be segregated “away from” may be transported in the same cargo transport unit upon authorization by the corresponding authority. In this case an equivalent safety degree must be kept.

4.6.3 Segregation in Port Areas

The IMO Maritime Safety Committee (MSC), by way of Circular 1/1216 of 26 February 2008 determined several revised recommendations regarding the risk free transport of dangerous goods and related activities within the port area.

Circular MSC 1216 of 2008 establishes that containers containing dangerous goods must not be stowed above each other. **Containers carrying dangerous cargo of the same class are exempt from this rule.** This exemption is not to be applied to Class 8 cargo (corrosives), if they are different from each other. This is to say, if the Class 8 corrosive cargo is exactly the same substance, they can be stored above each other. Containers must be stowed in such a way that there is always easy access to the doors and to the sides in order to carry out cooling or control work. Separation between the different classes must be taken into consideration when dangerous goods are stored in special areas or deposits. The chart indicated by IMDG Code will help in the stowage on board ships. IMO’s Port Recommendations establishes the following segregation chart for port storage.

Smif		2.1	2.2	2.3	3	4.1	4.2	4.3	5.1	5.2	6.1	8	9
Flammable gases	2.1	0	0	0	S	A	S	0	S	S	0	A	0
Non-toxic, non-flammable gases	2.2	0	0	0	A	0	A	0	0	A	0	0	0
Toxic gases	2.3	0	0	0	S	0	S	0	0	S	0	0	0
Flammable liquids	3	S	A	S	0	0	S	A	S	S	0	0	0

	Document No	Release Date	Revised No	Revised Date	Page Number
					58
	 DANGEROUS GOOD SAFETY GUIDE 				

Flammable solids, self-reactive substances and solid desensitized explosives	4.1	A	0	0	0	0	A	0	A	S	0	A	0
Spontaneously combustible	4.2	S	A	S	S	A	0	A	S	S	A	A	0
Substances which, in contact with water, emit flammable gases	4.3	0	0	0	A	0	A	0	S	S	0	A	0
Oxidizing substances	5.1	S	0	0	S	A	S	S	0	S	A	S	0
Oxidizing substances	5.2	S	A	S	S	S	S	S	S	0	A	S	0
Toxic substances	6.1	0	0	0	0	0	A	0	A	A	0	0	0
Corrosives (liquids and solids)	8	A	0	0	0	A	A	A	S	S	0	0	0
Miscellaneous dangerous substances and articles	9	0	0	0	0	0	0	0	0	0	0	0	0

The chart identifies only three segregation categories for storage in ports.

“0” means pairs of dangerous goods which do not need to be segregated from each other (unless indicated by the individual entry in the numerical list of dangerous goods, which must always be checked, requires so)

“A” indicates segregation requirement “away from ...” the other class in that pair (3 meters)

“S” requires the segregation category “separated from ...” between the classes of that pair (6 meters)

Cargoes of classes 1 (except division 1.4 S), 6.2 and 7 should normally be allowed into the port area for direct shipment or delivery only. These classes have not been included in the table. However, if through unforeseen circumstances, these cargoes have to be temporarily kept, it should be in designated areas. Segregation requirements of the individual class as stipulated in the IMDG Code should be considered by the port authority when establishing specific requirements.

Cleaning of container and portable tanks which contained dangerous goods must be done in a special area, away from those where dangerous goods are stored. Such areas shall be adequately designed and equipped to avoid contaminated washing water ending up in the soil, waterways or sewerage system.

After deconsolidating (un-stuffing/ stripping) a container with dangerous goods, all placards and goods risk identification shall be removed from the container.

4.7 Dangerous Goods Documentation

There are many documents in the shipping industry and they are primarily used to convey the information between/among these parties:

- Consignors (shippers)
- Consignees
- Shipping lines
- Government agencies
- Banking services

	Document No	Release Date	Revised No	Revised Date	Page Number
					59
	 DANGEROUS GOOD SAFETY GUIDE 				

- Insurance companies

These are legal documents and can be produced in courts to resolve potential disputes.

In the IMDG Code Volume 1 under the chapter on Documentation (Part 5 – Chapter 5.4) the process of dangerous goods transportation is clearly described. The code also includes the use of Electronic Data Processing (EDP) and Electronic Data Interchange transmission techniques.

The documentation for dangerous goods is to convey the fundamental information relative to hazards of the goods. The shipper shall provide all information and documentation as specified in the code.

4.7.1 Documents required for dispatching Dangerous Goods

One of the main requirements of a dangerous goods transportation document is to contain the basic information regarding the risks entailed by these dangerous goods. This dispatch document is normally the same for all transportation modes, and the information stipulated must be clear and legible. Nevertheless IMO recommends the use of the Multimodal Form, which will be mentioned later.

4.7.1.1 Dangerous Goods Transportation Document

Information which must be included in the Dangerous Goods Transportation Document:

- The shipping name or correct technical name (no commercial names will be accepted)
- The Class and Division when applicable. The Class or Division can be included in the risk class number. The compatibility group will also be indicated in goods from class 1; and in the case of gases involving secondary risks, information will be extended to indicate such risks
- The United Nations number preceded by the letters UN
- The packing group when assigned
- The number and types of bundles, as well as the total quantity of dangerous goods per volume or mass
- The flashpoint for materials having a flashpoint the same or lower than 61 °C
- The subsidiary risks not indicated in the shipping name
- When applicable, the goods shall be identified as “Marine Pollutant”
- Empty means of containment, which contain the residue of dangerous goods shall be described as such, for example, by placing the words “Empty”, “Uncleaned” or “Residue Last Contained” before or after the proper shipping name
- For dangerous goods in limited quantities, the phrase “Dangerous Goods in Limited Quantity” shall be included
- For class 5.2 or self reactive substances of class 4.1, the regulation and emergency temperatures
- A statement signed in the name of the consignor, saying that the goods are correctly described, classified, packed, marked and labeled and that its conditions are appropriate for transport
- Additional information may also be required in certain cases for explosives, radioactive materials, dangerous goods transported in a molten state, etc.

	Document No	Release Date	Revised No	Revised Date	Page Number
					60
	 DANGEROUS GOOD SAFETY GUIDE 				

Dangerous cargo secured incorrect inside containers, which then becomes loose and damaged during transport, has been the cause of the majority of accidents concerning dangerous goods. This is why it is very important to check that this has been carried out correctly.

4.7.2 Dangerous Goods Declaration Ordinance

The way in which information must be reported when dangerous goods are transported varies from one country to another. A basic requirement is the obligation to present a Declaration for Dangerous Goods.

If dangerous substances and other non dangerous substances are listed in the same document, the dangerous substances should be listed first or their dangerous nature should be emphasized. Regardless of the format of this declaration, always the same information must be provided. The following order of information must be respected, without inserting any other data in between: the shipping name, the Class, the UN number, and when applicable, the packing group.

The following are examples of dangerous goods descriptions:

- ALLYL ALCOHOL 6.1, UN 1098 I
- FORMIC ACID, 8, UN 1779, II
- ACROLEIN STABILIZED, 6.1, UN 1902, G e/e I (3), MARINE POLLUTANT

4.7.3 Container/Vehicle Packing Certificate

When dangerous goods are packed or loaded into any container or vehicle, those responsible for packing or loading shall provide a “container/vehicle packing certificate”. Basically this document certifies the following:

- The cargo transport unit was clean, dry and apparently fit to receive the goods
- Incompatible substances have not been placed into the cargo transport unit (unless this had been specifically authorized by the competent national authority)
- All packages have been externally inspected for damage, and only sound packages have been loaded

- All packages have been properly loaded and secured within the cargo transport unit
- The cargo transport unit and the packages are properly marked, labeled and placarded
- A dangerous goods transport document has been received for each dangerous goods consignment loaded in the container/vehicle

The certificate must be signed by the person responsible of stowing the goods in the cargo transport unit. It is possible to incorporate this certificate and the Dangerous Goods Declaration into a single document, the “Dangerous Goods Multimodal Transport”.

4.7.4 Multimodal Model of the Transport Document

	Document No	Release Date	Revised No	Revised Date	Page Number
					61
	 DANGEROUS GOOD SAFETY GUIDE 				

There is no mandatory model for the dangerous goods declaration. The IMDG Code recommends the use of the following document for the multimodal transport of dangerous goods, where the dangerous goods declaration is combined with the vehicle/container packing certificate; (Regulation 4, Chapter VII, Solas 74)

Please find an example of a completed Multimodal Dangerous Goods Form in the next page.

	Document No	Release Date	Revised No	Revised Date	Page Number
					62
	 DANGEROUS GOOD SAFETY GUIDE 				

MULTIMODAL DANGEROUS GOOD FORM					
1. Shipper/Consignor/ Sender Very Toxic Chemical Company 55 Prosperous Ave., Singapore 123456 Tel : 777-4444		2. Transport document number			
		3. Page 1 of 1 pages		4. Shipper's reference	
		5. Freight forwarder's reference			
6. Consignee Safe Chemical Trading Co., Ltd 45th Street, Northumberland NE24 4RG United Kingdom Tel : 444-8446		7. Carrier (to be completed by the carrier) SHIPPER'S DECLARATION (signature in block section 22 below) I hereby declare that the contents of this consignment are fully and accurately described below by the Proper Shipping Name, and are classified, packaged, marked and labelled/placard marked and labelled/placard marked and are in all respects in proper condition for transport according to transport according to the applicable International and national governmental regulations			
8. This shipment is within the limitations prescribed for: (delete non-applicable) PASSENGER-AND-CARGO AIRCRAFT		9. Additional handling information			
10. Vessel/flight No. and date M.V. Green Voy. 123N		11. Port/place or loading Singapore			
12. Port/Place of discharge Liverpool/ United Kingdom		13. Destination Manchester/UK			
14. Shipping marks		*Number and kind of package; description of goods		Gross mass(kg)	Net mass(kg)
MOOV Head Lice Solution 200 ml		UN 1170, ETHANOL SOLUTION, Class 3, PG III, (24°C c.c.) LTD QTY F-E, S-D. Total: 3 Ctns (24/Ctn) In plastic Bottles : QTY : 72		20.25	14.04
Resolve Solution 25 ml		UN 1170, ETHANOL SOLUTION, Class 3, PG II, (20°C c.c.) LTD QTY F-E, S-D. Total: 1 Ctn (14/Ctn) In plastic Bottles : QTY : 14		0.544	0.31
				0.057	0.001
15. Container identification No/ vehicle registration No. SPDU1234567		16. Seal number(s) 5445974		17. Container/ vehicle size & type 40' GP	18. Total gross mass (including tare) (kg) 19,878
19. Total gross mass (including tare) (kg) 25,000					
20. CONTAINER/ VEHICLE PACKAGING CERTIFICATE I hereby declare that the goods described above have been packaged/ loaded into the container/ vehicle identified above in accordance with the applicable provisions MUST BE COMPLETED AND SIGNED FOR ALL CONTAINER/VEHICLE LOADS BY PERSON RESPONSIBLE FOR PACKING/LOADING		21. RECEIVING ORGANIZATION RECEIPT Received the above number of packages/ container/ trailers in apparent good order and condition, unless stated hereon: RECEIVING ORGANIZATION REMARKS.			
Name of company Very Toxic Chemical Company, 55 Prosperous Ave., Singapore 123456 Tel : 777-4444		Hauler's name		22. Name of company (of SHIPPER PREPARING THIS NOTE Very Toxic Chemical Company	
Name/status of declarant Mr. Pack Packman		Vehicle reg. No.		Name/status of declarant Mr. Abod Efghi /Export Asst.	
Place and date Singapore, 15 June 2011		Signature and date		Place and date Singapore, 15 June 2011	
Signature of declarant		Driver's Signature		Signature of declarant	
DANGEROUS GOODS * You must specify: Proper Shipping Name, hazard class, UN No. packing group, (where assigned) marine pollutant and observe the mandatory requirements under applicable national and international governmental regulation. For the purpose of the IMDG Code see, 5.4.1.4 For the purpose of the IMDG Code: See 5.4.2					

	Document No	Release Date	Revised No	Revised Date	Page Number
					63
	 DANGEROUS GOOD SAFETY GUIDE 				

5. HANDBOOK FOR DANGEROUS GOODS HANDLED AT PORT FACILITY

Dangerous cargo shipment / discharge with handling and port facilities in the temporary storage activities in order to contribute to the fulfillment of these activities in a safe manner;

- Dangerous Goods classes,
- Packages of dangerous substances,
- Packaging,
- Labels,
- Signs and packaging group,
- Ship and port separation table according to the class of dangerous goods,
- Warehouse separation distance of dangerous goods storage,
- Separation terms,
- Dangerous cargo documentation,
- Loads containing dangerous emergency action flowchart issues,

Prepared as Hazardous Material Handbook in the size of a pocketbook and given as annexed hereto

6 PROCEDURES FOR THE OPERATION

	Document No	Release Date	Revised No	Revised Date	Page Number
					64
	 DANGEROUS GOOD SAFETY GUIDE 				

6.1 Prosedure of ships carrying dangerous goods safely Berthing, loading /unloading, shelter or anchorage during the day and at night.

6.1.1 Direct when and where a ship, having any dangerous cargoes on board, should anchor, moor, berth or remain within the port area, taking into consideration relevant matters such as the quantity and nature of the dangerous cargoes involved, the environment, the population, the weather conditions;

6.1.2 In an emergency, a ship having any dangerous cargo on its deck may be transported in the port area or directed to be removed from the port area having due regard to the safety of the ship and its crew, and may be approved by the ship's captain, the port operator's decision and the port authority's approval.

6.1.3 The port operator should ensure that:

6.1.4.1 adequate and safe mooring facilities are provided; and

6.1.4.2 adequate safe access is provided between the ship and the shore.

6.2 Procedure of according to the seasonal conditions additional measures that Loading/Unloading, limbo operation of dangerous goods should be taken by port facilities

6.2.1 Explosives or liquid bulk dangerous cargoes should be handled during thunderstorms nor should unprotected cargoes, which react dangerously when in contact with water, be handled during rain.

6.2.2 Solid bulk dangerous cargoes that, on contact with water, may evolve flammable or toxic vapors or become liable to spontaneous combustion, should be kept as dry as reasonably practicable. Such cargoes should be handled only during dry weather conditions.

6.2.3 Because of the nature of explosives the handling of dangerous cargoes in adverse weather conditions need careful attention, particularly in respect of wet conditions.

6.3 Procedures on keeping any inflammable, combustibile and explosive materials away from operations which cause or are likely to cause sparking and abstaining from operating any tools, apparatus or device which cause or are likely to cause sparking in areas where hazardous materials are handled, stowed and stored

6.3.1 Before starting any hot work, on board a ship or on a port, 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.

6.3.2 In addition to the safety precautions required be the port authority, before starting any hot work, the responsible person of the company to carry out the hot work together with the responsible person(s) of the ship and/or port, should add any additional safety precautions required by the ship and/or port.

6.3.3 These should include:

6.3.3.1 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;

	Document No	Release Date	Revised No	Revised Date	Page Number
					65
	 DANGEROUS GOOD SAFETY GUIDE 				

6.3.3.2 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;

6.3.3.3 Efficient protection of flammable structural members, e.g. beams, wooden walls, floors, doors, wall and ceiling coverings against accidental ignition; and

6.3.3.4 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.

6.3.4 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.

6.3.5 While carrying out hot work it is essential that:

6.3.5.1 checks are carried out to ensure that conditions have not changed; and

6.3.5.2 at least one suitable fire extinguisher, or other suitable fire-extinguishing equipment is readily available for immediate use at the location of the hot work.

6.3.6 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.

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

6.3.8 It is ensured that flame arresting equipment is used in the exhaust parts of the vehicles to be used during loading, unloading and handling of flammable and combustible materials.



6.3.9 In addition, Port Facility Occupational Safety Procedures shall be followed.

7. DOCUMENTATION, CONTROL AND RECORD

7.1 Procedures regarding to all necessary documents, information and certification relating to dangerous substances and their procurement and control by the relevant persons

7.1.1 The following documents related to hazardous substances are kept up to date.

CSC 1972 dated International Convention for Safe Containers as amended

IMDG Code International Maritime Dangerous Goods Code

IMSBC Code International Maritime Solid Bulk Cargoes Code

INF Code International Code for the Safe Carriage of Irradiated Nuclear Fuel,

Plutonium and High-Level Radioactive Wastes on Board Ships

MARPOL 73/78 International Convention for the Prevention of Pollution from Ships, 1973/78 as amended

	Document No	Release Date	Revised No	Revised Date	Page Number
					66
	 DANGEROUS GOOD SAFETY GUIDE 				

S O L A S 74 International Convention for the Safety of Life at Sea, 1974 as amended
 CSS Code of Safe Practice for Cargo Stowage and Securing (CSS Code)
 IMO / ILO / UNECE Guidelines to fill the cargo transport units (CTU's)
 TDC Deck Cargo Secure Timber handling code 2011
 GRAIN Code
 IBC Code International Code for the Construction and Equipment of Vessels Carrying Hazardous Chemicals in Bulk
 IGC Code International Code for the Construction and Equipment of Vessels Carrying Liquefied Gas at Bulk

7.1.2 The Operational Division for Hazardous Materials handled by our Port;
 Arriving at the port,
 Shipped from the port,
 Stored at the port, and
 Stored at the port on a temporary basis.

It shall develop all records fully and keep the same for submission upon request regarding any hazardous materials

The records of hazardous materials are limited to the personnel who need to know the same.

7.2 Procedures of keeping a regular and accurate current list of all hazardous substances in the coastal facility area and other relevant information.

7.2.1 Records of dangerous cargo handled in our port will be kept by the Operations department to include the following information.

- UN Number,
- PSN name (Proper Shipping Name)
- Class (with lower hazards)
- Packaging Group (Class 3, 4.1, 4.2, 4.3, 5.1, 6.1, 8, 9)
- Marine Pollutant or otherwise
- Receiver,
- Shipper,
- Container / Packaging, number,
- Seal number
- Additional Information (ignition temperature, viscosity, etc.)
- Storage location in the Port Area
- Duration of stay in the Port

7.2.2 This information is recorded on computer or in the file layout so that only authorized personnel can access and presented upon request.

7.2.3 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 goods in the certified and proper package, container or cargo unit in a safety way and reporting of inspection results.

7.2.4 Coordinately with the Operation, Planning checks the accuracy of the following information through the dangerous cargo documents delivered to the Port and organized by the Shipper;

- UN Number,

	Document No	Release Date	Revised No	Revised Date	Page Number
					67
	 DANGEROUS GOOD SAFETY GUIDE 				

- PSN name (Proper Shipping Name),
- Class (with lower hazards),
- Packaging Group (Class 3, 4.1, 4.2, 4.3, 5.1, 6.1, 8, 9)
- Marine Pollutant or otherwise,
- Containers / Packaging, number,
- Seal number
- Additional Information (ignition temperature, viscosity, etc.)
- Storage location in the Port Area

7.2.5 This information is delivered to the tally clerk, Field Supervisor, Warehouse officer, HSE, and authorized staff through Terminals / Documents and security of the dangerous goods is provided.

7.2.6 In case that information sent from Operation is different from the cargo, Operation will immediately be informed and shipper is instructed to verify the information on Dangerous goods / vehicle /container and correct the incorrect label brands.

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 goods in the certified and proper package, container or cargo unit in a safety way and reporting of inspection results.

7.3.1 Coordinately with the Operation, Planning checks the accuracy of the following information through the dangerous cargo documents delivered to the Port and organized by the Shipper;

- Number,
- PSN name (Proper Shipping Name),
- Class (with lower hazards)
- Packaging Group (Class 3, 4.1, 4.2, 4.3, 5.1, 6.1, 8, 9)
- Marine Pollutant or otherwise,
- Containers / Packaging, number,
- Seal number
- Additional Information (ignition temperature, viscosity, etc.)
- Storage location in the Port Area

7.3.2 This information is delivered to the tally clerk, Field Supervisor, Warehouse officer, HSE, and authorized staff through Terminals / Documents and security of the dangerous goods is provided.

7.3.3 In case that information sent from Operation is different from the cargo, Operation will immediately be informed and shipper is instructed to verify the information on Dangerous goods / vehicle /container and correct the incorrect label brands.

7.4 Procedures related to procurement of the Hazardous materials safety information sheets (SDS).

7.4.1 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).

- UN 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)

	Document No	Release Date	Revised No	Revised Date	Page Number
					68
	 DANGEROUS GOOD SAFETY GUIDE 				

- Marine Pollutants or otherwise,
- Tunnel Restriction Code (required for road transport).

7.4.2 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 statistics of dangerous goods

7.5.1 Administration, it is required that a report including the information of dangerous goods handled in our Port Facility will be reported to the Port Authority in by 3-month periods. The report sample issued by the Operation Department are shown below.

7.5.2 Statistical evaluation of records of dangerous goods handled in our port is carried out by our Trade, operation departments.

7.5.3 Monthly inventory and control reports of Dangerous goods stocked in our Port Area is organized by the operation department and submitted to Administration.

7.5.4 Records and reports are archived by department by 5-year periods

7.5.5 Dangerous load 3 -month activity reports are presented to the port chairman.

8. EMERGENCY SITUATION, EMERGENCY PREPAREDNESS AND RESPONSE

8.1 Response procedures for hazardous substances that are dangerous for life, property and/or environment and hazardous situations involving hazardous materials

8.1.1 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 two actions 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.

8.1.2 Proper evaluation of the factors listed below will determine the effectiveness of evacuation or in-place protection. 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.

8.1.2.1 The Dangerous Goods

8.1.2.1.1 Degree of health hazard

8.1.2.1.2 Chemical and physical properties

8.1.2.1.3 Amount involved

8.1.2.1.4 Containment/control of release

8.1.2.1.5 Rate of vapor movement

8.1.2.2 The Population Threatened

8.1.2.2.1 Location

8.1.2.2.2 Number of people

	Document No	Release Date	Revised No	Revised Date	Page Number
					69
	 DANGEROUS GOOD SAFETY GUIDE 				

- 8.1.2.2.3 Time available to evacuate or shelter in-place
- 8.1.2.2.4 Ability to control evacuation or shelter in-place
- 8.1.2.2.5 Building types and availability
- 8.1.2.2.6 Special institutions or populations.

8.1.2.3 Weather Conditions

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

8.1.3 Protective Actions

8.1.3.1 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.

8.1.3.2 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.

8.1.4 Evacuate

8.1.4.1 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.

8.1.4.2 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.

8.1.4.3 Even after people move to the distances recommended, they may not be completely safe from harm. They should not be permitted to congregate at such distances.

8.1.4.4 Send evacuees to a definite place, by a specific route, far enough away so they will not have to be moved again if the wind shifts.

8.1.5 Shelter In-Place

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

	Document No	Release Date	Revised No	Revised Date	Page Number
					70
	 DANGEROUS GOOD SAFETY GUIDE 				

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

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

8.1.5.2.1 The vapors are flammable;

8.1.5.2.2 If it will take along time for the gas to clear the area; or

8.1.5.2.3 If buildings cannot be closed tightly.

8.1.5.2.4 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.

8.1.5.3 It is vital to maintain communications with competent persons inside 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.

8.1.5.4 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 coastal facilities regarding to respond to emergencies.

8.2.1 The facility features an approved fire plan. Firefighting teams shall be created for each shift. Demonstrations and exercises, either scheduled or unscheduled, shall be provided for training purposes within the scope of various scenarios at indefinite times. The firefighting equipment stipulated by the approved plan shall be made available fully and maintenance, inspection and test activities shall be conducted for the same.

8.2.2 The facility has an approved action plan against Environmental and Marine Pollution. For each shift, pollution-fighting teams are created. Demonstrations and exercises shall be provided twice a year within the scope of a scheduled scenario, and the reports and records of the same shall be kept. The equipment relating to Environmental and Marine Pollution shall be stored at the facility with counting and inspections in place. Additionally, the facility shall have a protocol for materials stored in the area to ensure support in case of circumstances with inadequate means.

	Document No	Release Date	Revised No	Revised Date	Page Number
					71
	DANGEROUS GOOD SAFETY GUIDE				

8.2.3 The response teams shall be appointed against the spillage of hazardous materials in line with this guideline and pursuant to IMDG Code.

8.3 Regulations related to the the first aid for accidents involving dangerous substances (first aid procedures, first aid resources and capabilities and so on.).

8.3.1 In case of occurrence of emergency or detecting its symptoms, Emergency Manager (EM) initiate the appropriate measures pursuant to Emergency Management System (EMS) according to the relevant plans. Emergency Management Group (EMG) reviews the decisions regarding to the measures to be taken within scope of the ISGOTT and IMDG Code and put it into effect. Improvements continuously monitored by EMG and taking higher level of measures or help are decided, if needed.

8.3.2 EMG operations will be carried out by Emergency Management Center (EMC) or its equivalent. Emergency management at different levels depending on the severity of emergencies:

Facility / Site

Institutions

County, EMC

City EMC

Possible to be managed by the central government.

8.3.3 Emergency Management at the facility level will be performed by using safe, fast internal and external communication opportunities with well-designed organization, personnel prepared with training and exercises, Emergency Plans including procedures and documentation. The Emergency Management processes will be followed and controlled by basically applying the following measures.

FURTHER OPERATIONS	Related Sections
WARNING: Announce the occurrence/probability of emergency and unexpected situations.	All Personnel and Ship
CALL FOR HELP: Transfer of the necessary information to relevant organizations	All Personnel
RESPONSE: Respond to the Emergency as soon as possible with the right equipment and trained personnel stated under the Plan.	Response teams
FIRST AID: Administration of the first aid activities until professional support team arrive	All Personnel having First Aid Training
RESCUE: Saving material, tools, information, documents and other important papers of Port Facility	First Aid Personnel
PROTECTION: Taking recovered materials, tools, information, documents and other important papers under protection	Security Personnel
INFORMATION: Sending necessary explanations to the costumer and other persons and Press	Press and Public Relations
REQUIRED NOTICES: Sending of required notifications in accordance with regulations to the public authority	Authority

8.4 On-site and off site Notifications required to be made in case of emergency

	Document No	Release Date	Revised No	Revised Date	Page Number
					72
	 DANGEROUS GOOD SAFETY GUIDE 				

- a) Time of accident occurrence,
- b) How the accident occurs and its reason, if known,
- c) Place where the accident occurs (onshore facility and/or vessel) and its position and impact area,
- ç) Details of vessels involved in the accident, if any (name, flag, IMO no, owner, operator, cargo and its content, full name of the captain and similar details),
- d) Meteorological conditions,
- e) UN number of hazardous material and description of proper handling (the legislation provided in the description of hazardous materials shall apply) and quantity,
- f) Hazard class and sub-hazard class, if any, of hazardous materials,
- g) Packaging group of hazardous materials,
- ğ) Additional risks posed by hazardous materials, if any, such as marine pollutant,
- h) Marking and labelling details of hazardous materials,
- i) Properties and number of packing, cargo handling unit and container by which hazardous materials are carried, if any,
- j) Manufacturer, shipper, transporter and recipient of hazardous materials,
- j) Extent of resulting damage/pollution,
- k) Number of casualties, injuries and loss, if any,
- l) Emergency response practices performed at the onshore facility regarding the accident.

8.5 The procedures for reporting accidents.

8.5.1 Communication

8.5.1.1 Communication channels for the determination of the on-site and off-site communication methods and an effective management of the emergency in case of possible emergency cases in the Port Facility are specified as follows;

- Mobile Phones and the satellite phone, if available
- Computers
- Radio
- Siren
- Messengers are identified.

8.5.1.2 Internal communication is primarily provided by the radio and intercom for the emergencies occurred in the port. The communication between the Port and Ship is carried out by radio or VFH marine band radio provided by the Port.

8.5.1.3 Secure communication with the Official authorities, adjacent facilities and relevant authorities are provided as soon as possible in case of any emergency that may occur in the Port.

8.5.2 Reports

	Document No	Release Date	Revised No	Revised Date	Page Number
					73
	 DANGEROUS GOOD SAFETY GUIDE 				

8.5.2.1 EMC shall operate a reporting system that correctly notifies Emergencies to the relevant authorities as soon as possible. EMC including the information required to be notified in an emergency case shall create this reports in a proper way.

8.5.2.2 Dangerous cargo accidents will be reported to the Port Authority. The report format shall be free form and shall contain the following information about the accident.

- a) Time of accident occurrence,
- b) How the accident occurs and its reason, if known,
- c) Place where the accident occurs (onshore facility and/or vessel) and its position and impact area,
- ç) Details of vessels involved in the accident, if any (name, flag, IMO no, owner, operator, cargo and its content, full name of the captain and similar details),
- d) Meteorological conditions,
- e) UN number of hazardous material and description of proper handling (the legislation provided in the description of hazardous materials shall apply) and quantity,
- f) Hazard class and sub-hazard class, if any, of hazardous materials,
- g) Packaging group of hazardous materials,
- ğ) Additional risks posed by hazardous materials, if any, such as marine pollutant,
- h) Marking and labelling details of hazardous materials,
- i) Properties and number of packing, cargo handling unit and container by which hazardous materials are carried, if any,
- j) Manufacturer, shipper, transporter and recipient of hazardous materials,
- j) Extent of resulting damage/pollution,
- k) Number of casualties, injuries and loss, if any,
- l) Emergency response practices performed at the onshore facility regarding the accident.

8.6 Coordination, support and cooperation method with authorities.

8.6.1 All accidents related to hazardous materials will primarily be coordinated with Port Authority. Aid units of city / County Fire Department, DEMP and adjacent facilities will provide support and cooperation by informing the Port Authority.

8.6.2 In case of any signs of explosion, fire or emergency noticed at an adjacent facility;

Measures shall be tightened at the facility in the first place,

Teams shall be caused to get prepared for providing with the adjacent facility with assistance

8.6.3 Assistance and support teams shall be assigned for responding to any event in consideration of the urgency of situation and the severity of hazard, if there is no possibility to request help or time.

8.6.4 Preparations shall be in place for measures such as unloading and reduction of loads and removal of the vessel to anchorage site in case of any interface vessel in consideration of class, quantity and hazard risk.

8.7 Emergency evacuation plan for the evacuation of the ship and vessels from the coastal facility in case of emergency

8.7.1 Preparation for Emergency Separation System

8.7.1.1 All emergencies should be reported to the Port Authority.

8.7.1.2 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.

	Document No	Release Date	Revised No	Revised Date	Page Number
					74
	 DANGEROUS GOOD SAFETY GUIDE 				

8.7.1.3 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 representative from Port Authority or Port Master, Terminal Manager / Business Officer, 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.

8.7.1.4 The ship's machinery, steering gear and Marine Systems equipment shall be ready for use immediately.

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

8.7.1.6 Salt water system of the ship must be watered and water mist must be used for strategic departments.

8.7.1.7 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.

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

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

8.7.1.10 Fire ropes 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 Port Facility.

8.7.2 Realization of Emergency Separation

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

8.7.2.2 Emergency separation operations will be provided by performing the following operations in order.

8.7.2.3 A close coordination and cooperation between Terminal, Ship and Port Authorities is required for each phase.

8.7.2.4 Emergency Separation Process is as below.

Activating an alarm

Inform about the emergency by VHF phone

Making the first official assessment of the situation between the ship's captain and officer of Port Facility.

Suspension of operation

Implementing Port facility and ship emergency plan measures

Removal of the flexible hose connection.

The deterioration of the current situation and availability of the aforementioned emergency separation.

Making the assessment of the situation between the ship's captain, port facility officer, port authority or port master, guide captain

	Document No	Release Date	Revised No	Revised Date	Page Number
					75
	DANGEROUS GOOD SAFETY GUIDE				

The decision to the emergency separation

Inform the adjacent facilities and other vessels

The deployment of Trailers around the ship for an emergency separation, complement of the preparation and announcement of the situation

Completing the preparations for the ship by the captain and indicating that it is ready.

Granting approval for the opening of the release hook by the competent person.

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

8.7.3 Post Emergency Separation

8.7.3.1 Declaration of the decision on vessel back up and navigation route after the separation process of vessel.

8.7.3.2 Transition / mooring of the vessel to designated area in company with towboats or its own machine

8.7.3.3 Port Facility: Determining possible damages or deficiencies through examining the port facility

8.7.3.4 Consideration of the time when the vessel and port facility become available for freight handling

8.7.3.5 Sharing problems, if any, occurred during emergency separation.

An agreement is reached by and between pilotage and towage organizations and onshore facility authorities regarding any fire, explosion or similar emergencies which are likely to arise during loading/unloading.

Adequate towing boats having satisfactory towing power as furnished with necessary equipment to fight fire in line with weather and marine conditions shall reach the scene as soon as possible in case of emergencies pursuant to the protocol executed with the authorized company to remove the vessel away from the facility and move it to a safe location.

8.8 Procedures for handling and disposal of the damaged hazardous goods and wastes contaminated with hazardous goods.

8.8.1 Waste Collecting and Handling

8.8.1.1 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.

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

8.8.2 Waste disposal

8.8.2.1 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.

	Document No	Release Date	Revised No	Revised Date	Page Number
					76
	DANGEROUS GOOD SAFETY GUIDE				

8.8.2.2 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.

8.8.2.3 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.

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

8.8.3 Contaminated Packages;

***8.8.3.1** 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 MOTAT(mobile waste monitoring system) page within the time specified in the laws and regulation. Relevant documents are stored in environment folder

8.8.3.2 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 stored 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 cargos 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;

8.9.3.1 Have to be indicated within annual training plans.

8.9.3.2 May be planned as local or general responses,

8.9.3.3 Safety, Spillage, etc. may be combined in practice scenarios,

	Document No	Release Date	Revised No	Revised Date	Page Number
					77
	DANGEROUS GOOD SAFETY GUIDE				

8.9.3.4 Practices can be performed with or without notices.

8.9.3.5 Practices are based upon different emergency scenarios.

8.9.3.6 A practice may be actually performed as it can be negotiated as a desk work or a seminary,

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

8.10 Information on fire protection systems.

8.10.1 Emergency and fire equipment is given as follows: Fire hydrants, Fire extinguishers, Fire cabinets and Fire hoses, On-site fire alarm detectors, Electrical and diesel fire pumps

The fire inventory is as in the Emergency Plan.

8.11 Procedures for approval, inspection, testing, maintenance and availability of the fire protection system.

8.11.1 Fire-Protection Water Tanks and Fire-Protection Water

8.11.1.1 The storeroom should be cleaned up at least once a year by discharging the content in order to prevent possible hazards from moss and mud built up in the bottom and sides in the event of fire. Inlet valves, check valve and filters are maintained during the discharge process of pondages.

8.11.1.2 In case of sudden drawdown on water level, it must be checked for a seep or leakage and repaired if necessary.

8.11.1.3 Following the annual check, if necessary, internal and external cleaning and maintenance should be performed in sealed stores.

8.11.2 Fire-Protection Water Pumps

8.11.2.1 Points to take into consideration regarding operation of pumps and troubleshooting in addition to scheduled maintenance are specified below.

8.11.2.1.1 Pumps, stuffing boxes, pressure bolts are checked interrelated and it is ensured whether the pump can be turned up manually with ease or not. Water drops from stuffing box during the operation of the pump is typical. In order to prevent such water flow to the ground, the threaded opening under the stuffing box must be connected to the drainage with a tube.

	Document No	Release Date	Revised No	Revised Date	Page Number
					78
	 DANGEROUS GOOD SAFETY GUIDE 				

8.11.2.1.2 Fire-protection water pumps must be operated and recorded at least 1 hour a week.

8.11.2.1.3 Pump and suction pipe are ensured to be completely full of water. If it is not, water filling plug and bleed valve must be opened and such parts mentioned must be filled up with water until they overflow and when the water stops at the plug level, the plug must be tightened properly.

8.11.2.1.4 Pump motor will draw excessive current because of the starting current at the early stages of the operation. As a result of the simultaneous operation of all pumps, cutout switches may be tripped or diesel generators may be broken down seriously because of the heavy current. Therefore, limit relays that regulates the transition -from the star located at the shielded switch which drives the pump motors to triangle- must be arranged according to the number of pumps and the amount of pumps to be operated simultaneously and with respect to different and appropriate time intervals and timely initiation of pumps is provided.

8.11.2.1.5 After performing aforesaid preliminaries and checks, pumps are operated by pressing the drive switches. During the operation, electric motor voltage and the ampere driven must be checked from time to time. If the ampere driven is high at normal operation, a troubleshooting is needed. There may be a mechanical breakdown or force at the pump or motor. Substandard voltages may be hazardous for motor.

8.11.2.1.6 Monometers must be checked regularly and one or more pumps must be stopped in case of excess pressure increases.

8.11.2.1.7 Delivery pipes of pumps must be equipped with valves initially and check valves thereon.

8.11.2.1.8 If the check valve of the failed pump on the delivery pipe is blocked by materials such as paper, garbage, pieces, moss, mud and interrupts the proper close of the check valve, a part of the water pumped by the other pumps is pumped to the pool while passing through this failed pumps and suction pipes. This failure blocking the water discharge must be fixed in condition of fire occurrence. If a spinning is detected on some of the couplings of failed pumps during the operation of a part of the pumps, it must be interpreted as a sign for the above mentioned failure.

8.11.2.1.9 It must be ensured that the pump and the engine are at the right direction during the operation. For that reason, return path must be drawn on the coupling and control must be performed accordingly.

8.11.2.1.10 The bearings of the pump and engine must not be hotter than hands can resist. If the heat is high, it may be resulted from an internal mechanical forcing or coupling maladjustment. In such situations pump must be stopped and the failure must be corrected immediately.

8.11.2.1.11 For pumps driven by diesel engine, starting the engine must be carried out in line with the instructions.

8.11.2.1.12 In condition that a deficiency or malfunction is detected as a result of control, it is fixed by the responsables.

8.11.3 Sprinkler System

8.11.3.1 In case of using sprikler; The most important point and maintenance to do about sprinkler installation is preventing sprinkler head to be congested. To supply this; sprinkler should be worked according to standards/legislations and should be sure that it is working. Sufficient sprinkler head should be keep in every facility and in case of failure, it should be replaced with new ones, broken ones should be towed by repairing.

8.11.4 Fire Protection Hydrant Installation

	Document No	Release Date	Revised No	Revised Date	Page Number
					79
	 DANGEROUS GOOD SAFETY GUIDE 				

8.11.4.1 Entering rain water into fire-protection hydrant hose closets should be prevented; hoses should be without fracture, solid and constricted enough. At least one of the hoses should be maintained as always connected to fire protection valve.

8.11.4.2 Fire-protection valves should be impermeable and working. Broken nozzles, valves and hoses should be replaced immediately and faults should be repaired and towed. Therefore, sufficient hose, nozzle, fire-protection valve, clamp, sleeve and spare materials belong to those should be kept. Waiting the failure is not allowed with any reason at firefighting equipment.

8.11.4.3 While determined failures were fixing after drills, running fire- protection hoses shouldn't be put into closet with water in it. Facilities should supply proper hose suspension to drain the water off in hoses and to be dry and facilities shouldn't replace before ensuring that hose is quite dry. If sea water was ejaculated by hoses, firstly inside of them should be washed by fresh water and then they should be dried at a windy place.

8.11.4.4 All pipes belong to installation of sprinkler and fire-protection hydrants are has to be controlled in general every three months, rusty parts should be painted, decayed parts should be replaced, valves and retched valves should be controlled and failure should be fixed.

8.11.4.5 If any lack or malfunction is determined as a result of all fire-protection hydrants, hoses, and nozzles control it is fixed by related liable.

8.11.5 Portable Extinguishers

8.11.5.1 Sufficient quantity of spare device should always be in facility storages for failure, control and maintenance. Instead of extinguishers those were used for purposes above should be replaced with reserves.

8.11.5.2 All extinguishers are had visual test monthly and inspected. After control, extinguishers' upper surface is marked. During the control, especially extinguishers with dry powder are turned down and slightly hit the base, so powder in pipe is allowed to move. Otherwise, powder in extinguishers stays at same location for a long time can be hardened by subsiding to base. After the result of control; if any lack or malfunction is determined, it is fixed by related liable.

8.11.5.3 Extinguishers are inspected annually in general by firm according to TS ISO 11602-2 Fire Protection: Portable and wheeled extinguisher standard. Extinguishers are tested by related firm in ten years most intervals, chemical powder is inspected at the end of the 4th year.

8.11.6 Protection against freezing.

8.11.6.1 Protection of Generators

8.11.6.1.1 By outside temperature's decreasing under +4C, water may start to freeze. Therefore, radiator's generators with water-cooled motor should be ensured with antifreeze.

8.11.6.2 Protection fire-protection water pumps.

8.11.6.2.1 Fire-protection water pumps and absorption pipes are always full with water. So ambient temperature shouldn't be under +4 C.

8.11.6.3 Protecting of fire-protection distribution pipes.

8.11.6.3.1 Main pipes and branch pipes are had to be protected against the freezing about hydrant sinks. So, lines are protected against freezing by isolation or being floored underground.

8.12 The measures to be taken in case of failure on fire protection systems.

	Document No	Release Date	Revised No	Revised Date	Page Number
					80
	DANGEROUS GOOD SAFETY GUIDE				

8.12.1 The facility is a system with established alternative competency which backs up firefighting equipment.

8.12.2 The support of adjacent facilities, Fire departments and AFAD (Disaster and Emergency Management Directorate) shall be sought in cases where the facility's own fire fighting equipment is inadequate or out of service.

8.12.3 Other hazardous and combustible materials / vehicles, which are likely to be affected from fire, shall be removed away from the area, if possible.

8.12.4 A necessity may arise to determine under which conditions assistance and support are provided and their scope.

8.12.5 The capabilities of towing boats or marine vehicles featuring marine fire extinguishing system available in the area should be taken into consideration.

8.13 Other risk control equipment.

9. OCCUPATIONAL HEALTH AND SAFETY

9.1 Occupational health and safety measures.

Harbor Structure Management is obligated to take all necessary measures to prevent employees to be affected of these substances, if this is not possible; minimizing it and to protect employees from the danger of these substances when working with chemical substances.

9.1.1 Risk assessment

9.1.1.1 Harbor Structure Management is obligated to do a risk assessment in accordance with 29/12/2012 dated, 28512 numbered Occupational Health and Safety Regulation provisions published at official gazette to determine if there is dangerous chemical substance at Harbor Structure and if there is; determining negative effects in terms of employees' health and safety.

9.1.1.2 Following details are specifically considered at risk assessment to be made at studies with chemical substances:

9.1.1.2.1 Danger and harms of chemical substance in terms of health and safety.

9.1.1.2.2 Turkish material safety verse form (SDS) to be provided from sellers, manufacturers or importers.

9.1.1.2.3 Duration, type and level of contagion.

9.1.1.2.4 Quantity, conditions of usage and frequency of usage of chemical substance.

9.1.1.2.5 Vocational exposition limit values and biological limit values given at annexes of this regulation

9.1.1.2.6 Effect of preventive measures to be taken or taken.

9.1.1.2.7 If available, results of last health surveillance.

9.1.1.2.8 Each of these substances and their interactions with each other at works that was worked in with more than one chemical substances.

	Document No	Release Date	Revised No	Revised Date	Page Number
					81
	 DANGEROUS GOOD SAFETY GUIDE 				

9.1.1.3 Harbor Structure Management obtains extra information from supplier or other sources that is necessary for risk assessment. This information also includes special risk assessments involved in current regulations if available intended for users.

9.1.1.4 A new activity includes dangerous chemical substance is only started after taking all types of measures those were specified by doing risk assessment.

9.1.1.5 Measures to be taken at studying when dangerous chemical substances.

9.1.1.5.1 Risks in terms of employees health and safety when studying with dangerous chemical substances are disabled or minimized with following measures:

9.1.1.5.2 Proper regulation and organization of work are done at Harbor Structure.

9.1.1.5.3 Studies with dangerous chemical substances are made with minimum number of employees.

9.1.1.5.4 Substance quantity and exposition period employees will be exposed is allowed to be at minimum level.

9.1.1.5.5 Chemical substance quantity to be used at Harbor Structure is kept at minimum level.

9.1.1.5.6 Work place building and extensions are always kept clean and neat.

9.1.1.5.7 Proper and sufficient conditions are provided for employees' personnel cleaning.

9.1.1.5.8 Necessary regulations are made to store, transport, use and process dangerous chemical substances, waste and residuals properly at Harbor Structure.

9.1.1.5.9 Safe or less dangerous chemical substance is used instead of dangerous substance in terms of employees' health by using substitution method. If substitution method can't be used because of specification of the work, according to risk assessment result and with order of precedence, following measures are taken and risk is reduced:

9.1.1.5.10 Proper process and engineering control systems are chosen by also considering technological developments at studying with dangerous chemical substances involving maintenance and repair works those can be hazardous in terms of employees' health and safety.

9.1.1.5.11 Block protection measures like installing sufficient ventilation system and proper work organization are taken to prevent risk at its source.

9.1.1.5.12 In case of taken measures for protecting employees collectively against chemical substances' negative effects are not sufficient, personnel protection methods are adopted with these measures.

9.1.1.6 Sufficient control, supervision and inspection is made to allow taken measures to be active and perpetual.

9.1.1.7 Harbor Structure Management provides analysis and measurements of chemical substances regularly those could be hazardous for employees health. If any changing is realized at conditions those can effect Harbor Structure employees' exposition to chemical substances, these measurements are repeated. Measurement results are assessed by considering vocational exposition limit values specified in this Regulation annexes.

9.1.1.8 Harbor Structure Management, also considers specified measurement results. Every situation vocational exposition limit values are crossed, Harbor Structure Management takes protective and preventive measures to fix this as soon as possible.

9.1.1.9 On condition of remaining Regulation Provision about Protecting Employees from Dangers of Explosive Places secret, Harbor Structure Management makes administrative arrangements and takes technical measurements according to following order of precedence in accordance with turnover's specification involving to process, store and transport chemical substances, to prevent interacting chemical substances' touching each other mutually on the purpose of protecting employees from dangers which originate from chemical substances' physical and chemical feature, by basing results of risk assessment and risk avoidance principles:

	Document No	Release Date	Revised No	Revised Date	Page Number
					82
	 DANGEROUS GOOD SAFETY GUIDE 				

9.1.1.9.1 For inflammable and explosive substances to reach dangerous concentration and having dangerous quantity of chemically unstable substances are prevented at Harbor Structure. If this is not possible,

9.1.1.9.2 Having inflammable sources those can cause fire or explosion at Harbor Structure. Conditions those can cause harmful effect of chemically unstable substances and mixtures are disabled. If this is also not possible,

9.1.1.9.3 Required measures are taken to minimize or prevent employees to be effected by chemically unstable substances' and mixture's harmful effects in case of fire or explosion originate from inflammable or explosive substances.

9.1.1.10 Protective systems those were provided for protecting work equipment and employees, are designed, produced and supplied in accordance with legislation in force in terms of health and safety. Harbor Structure Management provides all equipment and protective systems to be used at explosive places, to be in accordance with provisions of Regulation About Equipment an Protective Systems Used at Probable Explosive Places (94/9/AT) published at 26392 4 repeated numbered and 30/12/2006 dated official gazette

9.1.1.11 Arrangements to reduce effect of explosion pressure are made.

9.1.1.12 Facility, machine and equipment are allowed to be always under control.

9.1.1.13 Minimum safety distances are complied with placing storage tanks those have liquid oxygen, liquid nitrogen and liquid argon at work places.

9.1.2 Emergencies

9.1.2.1 Especially following details are considered in case of emergencies originate from dangerous chemical substances at Harbor Structure on condition of keeping details specified in Regulation about Emergencies at Workplaces published 28681 numbered and 18/6/2013 dated Official Gazette as a secret:

9.1.2.1.1 Preventive measures to reduce negative effects of emergencies are taken immediately and employees are informed about the situation. Necessary studies are done to return emergency to normal and only employees assigned at emergencies to do maintenance, repair and compulsory works and teams came to scene from another place are let to get into effected area

9.1.2.1.2 Personal protective equipment and special security equipment is given to the people allowed to enter the affected area and it is being sure that they are using them as long as the emergency situation goes on. People who do not have personal protective equipment and special security equipment are not allowed to enter the affected area.

9.1.2.1.3 Information about the Dangerous chemicals and emergency situation intervention and evacuation procedures are all ready for use. Workers employed for the cases of emergency at the Port Facility and the establishments active in first aid, emergency medical attention, saving and firefighting outside the work place should be provided with these information and procedures easily. These information include;

9.1.2.1.3.1 For the workers employed for the cases of emergency at the Port Facility and the establishments active in first aid, emergency medical attention, saving and firefighting outside the work place to be ready beforehand and so they can practice the appropriate attention, the danger resulting from the work done, precautions to take and works to be done,

9.1.2.1.3.2 A special danger or information about the works needed to be done that are likely to happen in an emergency situation,

9.1.3 Workers' education and informing them

	Document No	Release Date	Revised No	Revised Date	Page Number
					83
	DANGEROUS GOOD SAFETY GUIDE				

9.1.3.1 Port Facility Management, provided that the provisions mentioned on the Regulation 15/5/2013 dated 28648 numbered Occupational Health and Safety Education Procedures and Principles remain hidden, ensures the workers' and their representative's training and informing. This training and informing especially include the aspects mentioned below;

9.1.3.1.1 Information gained as a result of the risk evaluation.

9.1.3.1.2 Information about the dangerous substances that may occur or taking place at the Port Facility and about the recognition of these substances, health and security risks, occupational diseases, occupational exposure level values and other legal regulations.

9.1.3.1.3 Necessary precautions and things to do so that the worker's do not danger themselves or the other workers.

9.1.3.1.4 Information on the Turkish material safety data sheets supplied from the manufacturer for the dangerous chemical substances.

9.1.3.1.5 Information on labelling/locking the parts, covers, pumping system and suchlike instalment where the dangerous chemical substances are according to the regulations

9.1.3.2 The training and information to the workers and their representatives on the works with the dangerous substances are a training supported by a verbal or written instruction due to the risk degree resulting from the risk evaluation done and its type. These instructions changes according to the changing conditions.

9.2 Information about the personal protective clothes and procedures to use them

Personal Protective Devices of the Response Teams

Level A

Usage area : Situations where the skin, breathing, eyes and etc. need to be protected in a high standard – gas proof.

Positive pressured Tube Breathing Apparatus– SCBA

Protective clothing against the chemicals

Gloves which are chemical proof from inside.

Gloves which are chemical proof from outside.

Boots or long boots, chemical proof, with steel heels.

Thermal underwear, long sleeve and cuffed

Hard Cover

Long sleeved

Double sided wireless connection (No spreading sparks)

Level B

The minimum level needed for the entry and exit to the scene, rather for the liquids to be spilled or scattered.

Positive pressured Tube Breathing Apparatus– SCBA

Protective clothing against the chemicals

Gloves which are chemical proof from inside.

Gloves which are chemical proof from outside.

Boots or long boots, chemical proof, with steel heels.

Hard Cover

Double sided wireless connection (No spreading sparks)

Face mask

Level C

Used when the chemicals in environment are known, when the concentration is decided, when it is decided that the skin and eyes will not get harmed. However continuous measure should be done.

	Document No	Release Date	Revised No	Revised Date	Page Number
					84
	 DANGEROUS GOOD SAFETY GUIDE 				

- Full mask, air cleaning filter
- Protective clothing against the chemicals
- Gloves which are chemical proof from inside.
- Gloves which are chemical proof from outside.
- Boots or long boots, chemical proof, with steel heels.
- Hard Cover
- Double sided wireless connection (No spreading sparks)
- Face mask

Level D

Work clothes (emergency intervention team). Requires long sleeved and security shoes/boot. Other Personal protection equipment changes due to the condition of the event. If a problem is to occur about the skin, entries to the scene with these kinds of clothes should not be done.

10 OTHER POINT

10.1 Validity of the Hazardous Substances Compliance Certificate.

10.2 Responsibilities of the Dangerous Goods Safety Consultant

Is the same as in Section 2.4.

10.3 Matters for carriers of the hazardous substances arriving/leaving coastal facility 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.).

10.3.1 Packaged dangerous cargoes and bulk dangerous cargoes (liquid or solid):

10.3.1.1 Name of the consignor (shipper) and date of delivery to the port area, normally not less than 24 hours before arrival;

10.3.1.2 For packaged dangerous cargoes: the Proper Shipping Names of the dangerous goods, the UN number, the class or, when assigned the division of the goods, including for class 1, the compatibility group letter, (if applicable), any subsidiary risk, the number and type of packages, packing group, the flashpoint range (as appropriate), the quantity and additional information as required by chapter 5.4 of the IMDG Code;

10.3.1.3 For bulk dangerous cargoes: the product name and any other information required by the relevant IMO code; and

10.3.1.4 The name of the ship into which the dangerous cargoes are to be loaded (if applicable), the ship's agent and the port.

10.3.2 Necessary certificates

Hazardous Cargo Declaration, Hazardous Cargo Transport Dispatch, Multi Mode Hazardous Cargo Form, Hazardous Cargo Manifest, Packaging and Container/Vehicle Loading Certificate, Safety Data Sheet,

Carrying certificate showing exemption for the shipping under ADR/RID/IMDG Code 3.4 and 3.5,

	Document No	Release Date	Revised No	Revised Date	Page Number
					85
	 DANGEROUS GOOD SAFETY GUIDE 				

SRC 5 certificate appropriate and valid for transport with regard to shipping under ADR, ADR written instruction, Vehicle Conformity Certificate appropriate and valid for carriage, transport document,

CSC Certificate for the shipping made with container,

The certificate showing eligibility of the tree in case of using heat treated tree with regard to transport or loading safety and cargo transport unit (CTU),

Cargo safety certificate signifying that container or the cargos in vehicle are secured within the scope of IMDG Code,

As regards the cargos to which fumigation application is made or contain hazardous gas in the cargo transport unit leaving port facility and the cargo transport units arriving port facility, the result of risk evaluation or transport conformity certificate if gas measurement is done,

Without lack of compulsory documents regarding the transport listed above, hazardous cargo that arrives port facility and leaves port facilities cannot be shipped. The cargos not taken under security in appropriate way within the scope of IMDG Code is treated as hazardous cargo too.

10.3.3 Speed Limit in Port Facility

Speed limit in our port facility is 20 km.

10.4 Matters for carriers of the hazardous substances arriving/leaving coastal facility by sea (matters on day/night signals to be shown by ships carrying hazardous goods and vessels, cold and hot work procedures in ships and so on.)

10.4.1 Arrival by Sea

10.4.1.1 Packaged hazardous cargoes:

10.4.1.1.1 Name and IMO number of ship, agency and estimated time of arrival (ETA), 24 hours at the latest from arrival normally;

10.4.1.1.2 Suitable Dispatch name of hazardous cargos, UN no, class for class 1 or determined part of products, suitability group letter (where applicable), if any, sub- risk, parcel number and type, packaging group, interval of flash point (where applicable), amount and the additional information necessitated with IMDG Code chapter 5.4;

10.4.1.1.3 Each cargo, dispatch or item in list should be numbered successively for easy reference.

10.4.1.1.4 Stacking of hazardous cargo in a way to mark the ones to be unloaded and left in ship;

10.4.1.1.5 The hazardous cargo to be left in ship should be indicated in a manner to refer the numbers in list (see above)

10.4.1.1.6 Condition of hazardous cargos in case of possibility of occurrence an inappropriate hazard and

10.4.1.1.7 any known defect that will able to affect security of ship or port area.

10.4.1.2 Hazardous bulk cargo (liquid or solid);

10.4.1.2.1 Name and IMO number of ship, agency and estimated time of arrival (ETA), 24 hours at the latest from arrival normally;

10.4.1.2.2 A list showing product name of hazardous cargos and other information necessitated with related IMO Code

10.4.1.2.3 A valid International Conformity Certificate for Bulk Transport of Hazardous Chemicals or a valid Conformity Certificate for Transport of Bulk Hazardous Chemical, whichever is appropriate, International Pollution Prevention Certificate for Liquid Bulk Substances hazardous for Health (NLS Certificate) and/or International Fuel Pollution Prevention Certificate should be made available for cargo;

	Document No	Release Date	Revised No	Revised Date	Page Number
					86
	 DANGEROUS GOOD SAFETY GUIDE 				

10.4.1.2.4 Hazardous cargos to be left in ship should be indicated in a way to refer the numbers in list;

10.4.1.2.5 The unitized carries which enter in a solid cargo terminal should also specify qualification of the last three cargos and where applicable, flash points and current situation of tank/cargo holes (i.e. if they are gasless) In the event of occurrence of any inconvenient danger, situation of hazardous cargos and taking under protection of cargo and transport system, the equipment related to the cargo shipped bulkly and a defect known in instrumentation and

10.4.1.2.6 Any known defect that may influence security of port area or ship

10.4.1.3.7 The additional information to be presented to port administration before hazardous cargos are brought port area or taken out of port area may be those indicated in ISPS Code Chapter B. Examples of other information required by regulatory bodies on packaged dangerous loads are:

- a) Container number,
- b) Shipping license number or reference (if the code is Class 1 or 7),
- c) Consignee or local carrier name and contact details (if available).

10.4.2 Departure by Sea

10.4.2.1 Packaged hazardous cargoes:

10.4.2.1.1 Name of ship and IMO number of ship, agency and estimated time of departure (ETD) as necessitated by regulatory boards;

10.4.2.1.2 Suitable Dispatch name of hazardous cargos, UN number, class for class 1 or established part of products, conformity group letter (where applicable), sub-risk if any, parcel number and type, packaging group, flash point interval (where applicable), amount and the additional information necessitated by IMDG Code chapter 5.4;

10.4.2.1.3 Stacking place on board of hazardous cargos.

10.4.2.2 Hazardous bulk cargoes (liquid or solid):

10.4.2.2.1 Name of ship and IMO number of ship, agency and estimated time of departure (ETD) as necessitated by regulatory boards;

10.4.2.2.2 a list showing product name of hazardous bulk cargos and other information necessitated by related IMO Code

10.4.2.2.3 A valid International Conformity Certificate for Bulk Transport of Hazardous Chemicals or a valid Conformity Certificate for Transport of Bulk Hazardous Chemical, whichever is appropriate, International Pollution Prevention Certificate for Liquid Bulk Substances hazardous for Health (NLS Certificate) and/or International Fuel Pollution Prevention Certificate should be made available for cargo;

10.4.2.2.4 Stacking on board or place of hazardous cargos.

10.5 Additional points will be added by the port facility.

10.5.1 Training

10.5.1.1 Management

10.5.1.1.1 Management should ensure that all shipboard and shore personnel involved in the transport or handling of dangerous cargoes or in the supervision thereof are adequately trained, commensurate with their responsibilities within their organization.

10.5.1.1.2 Management at all levels should exercise day-to-day responsibility for health and safety.

10.5.1.2 Personnel (cargo interests, port operators and ships)

	Document No	Release Date	Revised No	Revised Date	Page Number
					87
	 DANGEROUS GOOD SAFETY GUIDE 				

10.5.1.2.1 Every person engaged in the transport or handling of dangerous cargoes should receive training on the safe transport and handling of dangerous cargoes, commensurate with his responsibilities.

10.5.1.3 Shore-based personnel Should receive general awareness/familiarization training, function-specific training and safety training.

10.5.2 Training content

10.5.2.1 General awareness/familiarization training

10.5.2.1.1 Every person should receive training on the safe transport and handling of dangerous cargoes, commensurate with his duties. The training should be designed to provide familiarity with the general hazards of relevant dangerous cargoes and the legal requirements. Such training should include a description of the types and classes of dangerous cargoes; marking, labelling and placarding, packing, segregation and compatibility requirements; a description of the purpose and content of the transport documents; and a description of available emergency response documents.

10.5.2.2 Function-specific training

10.5.2.2.1 Every person should receive detailed training concerning specific requirements for the transport and handling of dangerous cargoes which are applicable to the function that he performs.

10.5.2.3 Safety training

10.5.2.3.1 Each person should receive training commensurate with the risks in the event of a release of dangerous cargoes and the functions he performs, on:

10.5.2.3.2 Such training should be provided or verified upon employment in a position involving the transport or handling of dangerous cargoes and should be periodically supplemented with retraining, as deemed appropriate by the regulatory authority.

10.5.2.3.3 The handling of dangerous cargos transportation and tasks related to security training for personnel, responsibilities and duties under the provisions of must comply with the port facility security plan (ISPS Code Section A/2.1.5).

In addition, specific training requirements for the safety of hazardous substances provided in Section 1.4 of the code should be addressed.

10.6 Accident Prevention Policy

As BELDEPORT management, we are aware of that the operations realized in our port have the potential that will lead to accidents inherently. However, we believe all accidents may be prevented. Therefore, we undertake to manage operation ideally to protect subcontractors, visitors, neighbours and environment at the highest level through preventing accidents. With the aim of preventing accidents and mitigate the effects in the direction of BELDEPORT MANAGEMENT Quality Management Systems, as BELDEPORT, we will apply the POLICIES about

- Taking high level security measures for human and environment around Port facility and procuring all resources for this purpose,
- Continuous improvement of the environmental and health effects of our hazardous substances activities in accordance with the changing national and international laws and technological developments
- Identification of the specific hazards of hazardous materials which are estimated, evacuated and handled at the port facility and taking measures related to first aid, fire, leak/spill response measures and storage, stacking and separation rules in order to prevent damage to human and environment

	Document No	Release Date	Revised No	Revised Date	Page Number
					88
	DANGEROUS GOOD SAFETY GUIDE				

- Making the risk evaluation based on quantitative analysis related to ordinary and extraordinary operation and keeping these evaluations updated continuously with the purpose of determining and assessing accidents
- Having performed the arrangements covering maintenance, repair and temporary stopping related to detected risks and preparation of requisite procedures
- Following technological development and providing support required for continuous improving of security measures in facilities with the aim of preventing accidents and mitigate the effects
- Making necessary arrangements required for design of new facility, process along with planned changes and having performed risk evaluations absolutely before realization and assessing acceptability
- Determining emergencies that will be detected before with systematic analysis, preparing emergency plans for these emergencies and reviewing with drills following realization of audit regularly
- Tracking performance of system within the framework of procedures to evaluate conformity to the targets identified with Quality Management Systems, in case of failing to provide conformity, searching corrective activities
- Evaluating efficiency and conformity of Quality Management Systems periodically and systematically, documentation, certification, performing review by us as top management and giving support for continuous improvement of Quality Management Systems
- Employing the personnel who have knowledge, education and experience convenient for the positions that will affect safety and security of operational job processes within organization,
- Ensuring that our employees in charge develop themselves constantly by means of giving trainings,
- Adhering to national and international law, regulation, bylaws and standards
- Ensuring health and securities of employees, contractors, visitors and neighbours and protection of environment whereby preventing accidents and eliminating the effects systematically through taking necessary measures and searching potential incompatibilities with policy

WE WILL IMPLEMENT ITS POLICIES
AS MANAGEMENT AND ALL EMPLOYEES.

10.7 Hot Work Procedure

1. No permit is given for the hot works to be done aboard ship. However, in necessary cases, after taking permits in the direction of legal legislations by ship agency, it will be realized under the control of port facility.
2. For hot works, when handling dangerous cargo at our port facility and before starting any operations on the dangerous cargo area, written permit regarding applicability of hot works in question will be taken from port authority. With abovementioned permit, the place where hot work and procedures will be performed and related details and additionally safety measures to be applied will be specified on Hot work form.
3. Hot Work Form covers the following.
 - a) with the aim of being sure about that the areas on which work is to be done is no burning and/or explosive environment and insufficient in terms of ventilation and oxygen, auditing

	Document No	Release Date	Revised No	Revised Date	Page Number
					89
	 DANGEROUS GOOD SAFETY GUIDE 				

frequently the area and adjacent areas where work is to be carried out including the tests applied by accredited testing organizations,

b) removing hazardous cargos and other combustible materials from working area and adjacent areas (lime, sludge, residue and other combustible materials are included in the substances to be removed from the area in question)

c) protecting efficiently against accidental ignition of combustible building materials (i.e., girders, wooden partitions, floors, doors, wall and ceiling coatings)

ç) sealing and ensuring impermeability of open pipes, pipe transitions, valves, joints, gapes and open parts with the purpose of preventing spreading of flame, spark and hot particles from working areas to adjacent areas or other areas

4. warrant of the hot work to be done and a plate on which the safety measures to be taken are written will be hanged in working area and entrances of all working area. Warrant and safety measures should be visible easily and will be understandable clearly by everyone who will conduct hot works.

5. While doing hot works, attention should be paid to the following matters:

a) controls will be carried out with the aim of confirming that no current condition have changed in working environment.

b) While hot works are performed, at least one fire tube or other fire extinguishing equipment shall be made ready , so as to be used instantly with their all apparatus in a venue to be reached easily.

6. In the course of hot work and procedures, when the works in question are completed and during enough time following completion , efficient fire control shall be made in the area on which hot work is conducted and the adjacent areas where hazard will emerge owing to heat transfer.

7.Necessity of applying for the document titled “International Safety Guide for Oil Tankers and Terminals (ISGOTT) “ particularly for additional more detailed information and procedures pertaining to hot works and procedures will be taken into consideration every time.

	Document No	Release Date	Revised No	Revised Date	Page Number
					90
	DANGEROUS GOOD SAFETY GUIDE				

SICAK İŞ FORMU

Risk Değerlendirmesi																																										
Sıcak Çalışma Alanı:																																										
Giriş Sınırlamaları:																																										
Sıcak İş nedeni:																																										
Çalışma etkinliği açıklaması:																																										
Muhtemel tutuşurma kaynağı türleri:																																										
<input type="checkbox"/> Alev (kaynak, lehim, vb) <input type="checkbox"/> Kıvılcım veya cüruf (taşlama, kesme, kaynak, vb)																																										
<input type="checkbox"/> Sıcak Nesne (metal yüzey vb) <input type="checkbox"/> Diğer:																																										
Tehlike tanımlama, risk analizi ve kontrol önlemi seçimi:																																										
Sıcak Çalışma ile ilgili Sorumluluk:																																										
(Uygun olanı işaretleyiniz)																																										
<input type="checkbox"/> Sıcak iş sadece aşağıda ayrıntıları verilen sıcak iş konularında göre taşeron personeli tarafından yapılacaktır. Kişi/Kişiler belirlenmiş ve ayrıntılı çalışma detayları ve daha önce hazırlanıp bu formun sonuna eklenmiştir.																																										
<input type="checkbox"/> Sıcak iş sadece aşağıda ayrıntıları verilen sıcak iş konularında göre tesis personeli tarafından yapılacaktır.																																										
Dokümanları ekle ve risk değerlendirmesi yapmadan Sıcak İş iznine geç.																																										
Aşağıdaki risk değerlendirmesini tamamla																																										
Risk Değerlendirme Rehberi																																										
Adım 1 – Sonucunu düşün		Adım 2 – Olasılığı Düşün		Adım 3 – Riski Hesapla																																						
Bu tehlikenin meydana gelebilecek sonuçları nelerdir? Bu tehlike çalışma ile ilgili (a/a'da) en olası sonucu nedir düşünün.		Adım 1 de kararlaştırılan tehlike sonucunun meydana gelme olasılığı (a/a'da) nedir.		1. Adım 1. puanı alın ve doğru sütünü seçin. 2. Adım 2. puanı alın ve doğru satırı seçin. 3. İki değerlendirme a/a'da matris üzerinde çapraz risk skoru kullanın. Y = YÜKSEK, C = CİDDİ, O = ORTA, D = DÜŞÜK																																						
Aşın Birden fazla ölüm veya kalıcı yaralanmalar Kritik Tek ölüm yada kalıcı hasar Büyük Medikal tedavi veya kayıp zaman yaralanması Küçük İlk yardım tedavisi Önemsiz Olay veya ramak kala – hiç bir tedavi		Mümkün Çoğu durumda ortaya çıkması bekleniyor Olasılıklı Muhtemelen bir kez olabilecek Muhtemel Olay bir zamanda ortaya çıkabilir Olası Olay beklenmiyor sadece istisnai durumlarda ortaya çıkabilir. Değil/ Nadir		<table border="1"> <tr> <th colspan="2" rowspan="2"></th> <th colspan="5">Sonuçlar</th> </tr> <tr> <th>Önemsiz</th> <th>Küçük</th> <th>Büyük</th> <th>Kritik</th> <th>Aşın</th> </tr> <tr> <th rowspan="5">Olasılık</th> <th>Mümkün</th> <td>O</td> <td>C</td> <td>Y</td> <td>Y</td> <td>Y</td> </tr> <tr> <th>Olasılıklı</th> <td>O</td> <td>O</td> <td>C</td> <td>Y</td> <td>Y</td> </tr> <tr> <th>Muhtemel</th> <td>D</td> <td>O</td> <td>O</td> <td>C</td> <td>C</td> </tr> <tr> <th>Olası Değil / Nadir</th> <td>D</td> <td>D</td> <td>O</td> <td>O</td> <td>C</td> </tr> </table>				Sonuçlar					Önemsiz	Küçük	Büyük	Kritik	Aşın	Olasılık	Mümkün	O	C	Y	Y	Y	Olasılıklı	O	O	C	Y	Y	Muhtemel	D	O	O	C	C	Olası Değil / Nadir	D	D	O	O	C
		Sonuçlar																																								
		Önemsiz	Küçük	Büyük	Kritik	Aşın																																				
Olasılık	Mümkün	O	C	Y	Y	Y																																				
	Olasılıklı	O	O	C	Y	Y																																				
	Muhtemel	D	O	O	C	C																																				
	Olası Değil / Nadir	D	D	O	O	C																																				
	<table border="1"> <tr> <th colspan="2" rowspan="2"></th> <th colspan="5">Sonuçlar</th> </tr> <tr> <th>Önemsiz</th> <th>Küçük</th> <th>Büyük</th> <th>Kritik</th> <th>Aşın</th> </tr> <tr> <th rowspan="5">Olasılık</th> <th>Mümkün</th> <td>O</td> <td>C</td> <td>Y</td> <td>Y</td> <td>Y</td> </tr> <tr> <th>Olasılıklı</th> <td>O</td> <td>O</td> <td>C</td> <td>Y</td> <td>Y</td> </tr> <tr> <th>Muhtemel</th> <td>D</td> <td>O</td> <td>O</td> <td>C</td> <td>C</td> </tr> <tr> <th>Olası Değil / Nadir</th> <td>D</td> <td>D</td> <td>O</td> <td>O</td> <td>C</td> </tr> </table>								Sonuçlar					Önemsiz	Küçük	Büyük	Kritik	Aşın	Olasılık	Mümkün	O	C	Y	Y	Y	Olasılıklı	O	O	C	Y	Y	Muhtemel	D	O	O	C	C	Olası Değil / Nadir	D	D	O	O
		Sonuçlar																																								
		Önemsiz	Küçük	Büyük	Kritik	Aşın																																				
Olasılık	Mümkün	O	C	Y	Y	Y																																				
	Olasılıklı	O	O	C	Y	Y																																				
	Muhtemel	D	O	O	C	C																																				
	Olası Değil / Nadir	D	D	O	O	C																																				
	<table border="1"> <tr> <th>Tehlike (İşe ilişkin tehlikeleri listeleyn)</th> <th>Kontroller (Bütün Tehlikelerin yönetmek için kontrolleri liste)</th> <th>Kişisel Koruyucu Kıyafetler</th> <th>Sorumlu Kişiler (Kontrolleri uygulanmasından sorumlular)</th> <th>Risk Değerlendirmesi (Yerinde Kontroller ile: Yüksek, Ciddi, Orta veya Düşük)</th> </tr> <tr> <td>1.</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>2.</td> <td></td> <td></td> <td></td> <td></td> </tr> </table>						Tehlike (İşe ilişkin tehlikeleri listeleyn)	Kontroller (Bütün Tehlikelerin yönetmek için kontrolleri liste)	Kişisel Koruyucu Kıyafetler	Sorumlu Kişiler (Kontrolleri uygulanmasından sorumlular)	Risk Değerlendirmesi (Yerinde Kontroller ile: Yüksek, Ciddi, Orta veya Düşük)	1.					2.																									
Tehlike (İşe ilişkin tehlikeleri listeleyn)	Kontroller (Bütün Tehlikelerin yönetmek için kontrolleri liste)	Kişisel Koruyucu Kıyafetler	Sorumlu Kişiler (Kontrolleri uygulanmasından sorumlular)	Risk Değerlendirmesi (Yerinde Kontroller ile: Yüksek, Ciddi, Orta veya Düşük)																																						
1.																																										
2.																																										
Riski Değerlendiren Personel :																																										
İsim:		İş Veren:		Tarih:																																						
İsim:		İş Veren:		Tarih:																																						

	Document No	Release Date	Revised No	Revised Date	Page Number
					91
	DANGEROUS GOOD SAFETY GUIDE				

SICAK İŞ İZNI			
Risk Değerlendirilmesinde açıklanan sıcak iş yöntemi ve konumuna göre, aşağıda ilgili bölümlerde kontrol gereksinimlerini belirlemek.			
SICAK İŞ VE TUTUŞTURMA KAYNAKLARI KONTROLÜ			
Sıcak çalışmalarının bir parçası olarak gerçekleştirilecek sıcak iş ve tutuşturma kaynaklarının kontrollerini belirlemek:	EVET	N/A	Kontrol
<input type="checkbox"/>	<input type="checkbox"/>		Tesis / yüklenici tarafından sağlanan Yangın söndürücüler sıcak çalışma alanı ve hemen bitişiğinde 10 metrede yer almaktadır (sabit konum yangın söndürücüler hariç)
<input type="checkbox"/>	<input type="checkbox"/>		Yakalama hasırları veya levhalar kıvılcım ve cüruf yakalamak için uygun yerlere konumlandırılmıştır.
<input type="checkbox"/>	<input type="checkbox"/>		Yanıcı ve parlayıcı malzemelerin sıcak iş alanından temizlemesi gerekmektedir. (burada uygulanabilir sıcak çalışma alanı etrafında 15m alanı düşünün ve aşağıdaki çalışma alanının yüzeylerinde dahil edilmesi gerekir.)
<input type="checkbox"/>	<input type="checkbox"/>		Kanalizasyonlar, kablo rafları, elektrik kabloları ve diğer ısı / yangına hassas ürünler dikkate alınacaktır. (15 metrelik bir alanda yanmaz battaniye, yakalama levhaları veya mevcut ise onaylı kaplamalar kullanın)
<input type="checkbox"/>	<input type="checkbox"/>		Yangın hortumu sıcak iş alanında kullanıma hazır tutulacaktır
<input type="checkbox"/>	<input type="checkbox"/>		Bir Yangın gözlemcisi sıcak iş sırasında yangın riskini, kıvılcım, cüruf, sıcak nesneleri devamlı izlemesi ve / veya iş boyunca belli periyodlar için gereklidir. <input type="checkbox"/> Tüm İş Boyunca, ve/veya <input type="checkbox"/> İş Boyunca Belli Periyodlarda (..... dakikada bir)
Belirli Sıcak İş / Tutuşturma Kaynaklarının Kontrolleri	Evet	N/A	Evet ise Ek Kontrol Ayrıntıları Belirtilacaktır
Sıcak iş esnasında izolasyon yapılması gereken bitişik alanlarda alınması gerekli önlemler (boru, tank, basınçlı kaplar gibi)	<input type="checkbox"/>	<input type="checkbox"/>	
Sabit yangın koruma ve algılama sistemi hizmet dışı bırakılması gerekmektedir.	<input type="checkbox"/>	<input type="checkbox"/>	
Çalışma alanı özel temizlik yapılması, yıkanması, havalandırması veya çalışma öncesi atmosferik izleme gerektirir. (çalışma alanında yanıcı / patlayıcı buharlar, tozlar, sıvılar ya da katı atıklar)	<input type="checkbox"/>	<input type="checkbox"/>	
Çalışma alanı çalışmalar sırasında ön temizleme, sökme, yüzey hazırlığı yapma ve atmosferik izleme gerektirir. (Yüzeyler ve kaplamalar ısıtılırken veya kesilirken zararlı emisyonları oluşturabilir)	<input type="checkbox"/>	<input type="checkbox"/>	
İşin niteliği özel solunum cihazı giyilmesini gerektirir	<input type="checkbox"/>	<input type="checkbox"/>	
İşin niteliği gaz ve diğer hassas ürün için uygulanacak özel kontroller gerektirir.	<input type="checkbox"/>	<input type="checkbox"/>	
Sıcak işte elektrik kaynağı kullanılacak ise elektrik güvenliğini sağlamak için özel kontroller gereklidir.	<input type="checkbox"/>	<input type="checkbox"/>	
Kapalı Mekanlar için ek Sıcak Çalışma Kontrolleri			<input type="checkbox"/> N/A (Uygulanmaz)
Kontroller:	Evet	N/A	
Dışarıda uygun bir yere cihazlar konumlandırılır. (yangın söndürücü, hortumlar, solunum cihazları gibi)	<input type="checkbox"/>	<input type="checkbox"/>	
Havalandırma fanını kirlenme kaynağının mümkün olduğu kadar yakına konumlandırılır.	<input type="checkbox"/>	<input type="checkbox"/>	
Kirletici maddeler hava boşluğuna tahliye edilmesi (böylece devri daim edilirler ve diğer işçileri zarar vermezler)	<input type="checkbox"/>	<input type="checkbox"/>	
Elektrik kaynağı önemli bir sure askıya alındığında Elektrik kaynaklarından elektrotlar çıkartılır ,takıldıktan sonra tekrar enerji verilir. Böylece kazara kontak yada ark oluşmaz.	<input type="checkbox"/>	<input type="checkbox"/>	
Gaz kaynaklı kesme faaliyetleri önemli bir sure askıya alındığında, meşale ve silindir valfleri kapatılır. Meşale ve hortum bağlantısı çıkarılır ve basınçlaştırılır.	<input type="checkbox"/>	<input type="checkbox"/>	
Sıcak İşin Tamamlanması			<input type="checkbox"/> N/A (Uygulanmaz)
Kontroller:	Evet	N/A	
İşin bitiminden sonra alan en az yarım saat süreyle kontrol edilir.	<input type="checkbox"/>	<input type="checkbox"/>	
Alan en az sekiz saat süre ve birer saat ara ile kontrol edilir.	<input type="checkbox"/>	<input type="checkbox"/>	
Sıcak çalışma sonrası yapılacak kontrollerle gerek yoktur.	<input type="checkbox"/>	<input type="checkbox"/>	
İzin İsteyen			
İsim: _____	İmza: _____		
Onaylayan			
İsim: _____	İmza: _____		

	Document No	Release Date	Revised No	Revised Date	Page Number
					92
	 DANGEROUS GOOD SAFETY GUIDE 				

10.8 Responsibilities of Personnel in Operation

10.8.1 Operation Officer

10.8.1.1 Acts according to the checklists in 10.9.

10.8.1.2 A coordination meeting will be held at least 1 day prior to the acceptance of dangerous cargoes to the port facility and the representatives of operation, Field planning, HSE unit, TMGD and other related persons shall participate to the meeting.

10.8.1.3 If a decision is taken at the meeting in favor of accepting the dangerous cargo, management, operation, storage, safety and emergency response departments shall be notified and the necessary preparations and acceptance process will be commenced.

10.8.1.4 If it is required to notify the Port authority, the situation shall be notified to the Port authority in writing by specifying the reasons.

10.8.1.5 Number of equipments and cranes, teams and shifts as well as the port to be used shall be specified at this meeting.

10.8.1.6 Organize the work order with the 2nd Cap.

10.8.1.7 Ensure that the cargo handling is made according to the approved cargo plan With the Planning Specialist.

10.8.1.8 Every person engaged in the handling of dangerous cargoes exercises reasonable care to avoid damage to packages, unit loads and cargo transport units.

10.8.1.9 Whilst dangerous cargoes are being handled, precautions are taken to prevent unauthorized access to handling areas.

10.8.1.10 If there is any loss of containment of dangerous cargo, every practical step is taken to minimize risks to persons and adverse effects to the environment.

10.8.1.11 Wrappings and packaging to be used in the activities of changing of cargo transport units, repair thereof or placing of the damaged packages inside the saving packages should be in accordance with the structure of dangerous materials and they shall be produced and certified as they are set out in chapter 6 of the IMDG Code.

10.8.1.12 Handling and temporary storage operations to be performed is in accordance with the rules of separation.

10.8.1.13 Fumigated cargo transport units and/or cargo transport units containing poisonous gases shall be stowed in a manner that their covers cannot be opened in an uncontrolled way.

10.8.1.14 Packaged cargoes containing Class 4.3 cargo and bulk cargo shall be prevented from being affected by rain, seawater and other factors

10.8.1.15 If the evacuation of ship is partially completed, gas measurements will be conducted prior to assignment for the evacuation of cargo in the hold of the ship.

	Document No	Release Date	Revised No	Revised Date	Page Number
					93
	 DANGEROUS GOOD SAFETY GUIDE 				

10.8.1.16 During handling of dangerous solid loads, Canvas is laid between the ship and the port and a responsible person is assigned for cleaning the cargo scattered around.

10.8.1.17 At the areas where solid bulk dangerous cargoes releasing poisonous or flammable gases are handled, periodic controls will be conducted for measuring poisonous or flammable gas concentrations as well as their probable dissemination and the precautions taken will be recorded.

10.8.2 Shift Supervisor

10.8.2.1 Acts according to the checklists in 10.9.

10.8.2.2 The personnel equipped with the necessary protective equipment check before the operation.

10.8.2.3 Necessary warnings will be made in order that the trucks do not to make loading exceeding loading limit and people in charge will pay necessary attention with respect to this issue.

10.8.2.4 The drivers will wait at a specified location away from the vehicle during the loading and unloading of vehicles. It will be controlled if the driver has the necessary protective equipments or not.

10.8.2.5 The shift superintendent will be responsible from controlling the work security, control of equipments, entry and exit of outsiders, safe handling of the cargo, environmental cleaning and duly performance of these works.

10.8.2.6 Organize the work order with the 2nd Cap.

10.8.2.7 Ensure that the cargo handling is made according to the approved cargo plan.

10.8.2.8 Performs the necessary separation according to the classes of dangerous loads.

10.8.2.9 Every person engaged in the handling of dangerous cargoes exercises reasonable care to avoid damage to packages, unit loads and cargo transport units.

10.8.2.10 Whilst dangerous cargoes are being handled, precautions are taken to prevent unauthorized access to handling areas.

10.8.2.11 If there is any loss of containment of dangerous cargo, every practical step is taken to minimize risks to persons and adverse effects to the environment.

10.8.2.12 Wrappings and packaging to be used in the activities of changing of cargo transport units, repair thereof or placing of the damaged packages inside the saving packages should be in accordance with the structure of dangerous materials and they shall be produced and certified as they are set out in chapter 6 of the IMDG Code.

	Document No	Release Date	Revised No	Revised Date	Page Number
					94
	 DANGEROUS GOOD SAFETY GUIDE 				

10.8.2.13 Fumigated cargo transport units and/or cargo transport units containing poisonous gases shall be stowed in a manner that their covers cannot be opened in an uncontrolled way.

10.8.2.14 Packaged cargoes containing Class 4.3 cargo and bulk cargo shall be prevented from being affected by rain, seawater and other factors.

10.8.2.15 If the evacuation of ship is partially completed, gas measurements will be conducted prior to assignment for the evacuation of cargo in the hold of the ship.

10.8.2.16 During handling of dangerous solid loads, canvas is laid between the ship and the port and a responsible person is assigned for cleaning the cargo scattered around.

10.8.2.17 At the areas where solid bulk dangerous cargoes releasing poisonous or flammable gases are handled, periodic controls will be conducted for measuring poisonous or flammable gas concentrations as well as their probable dissemination and the precautions taken will be recorded.

10.8.2.18 Water balls should be place in vicinity of areas where dangerous materials like coal, which have spontaneous combustion but not affected by water, are stored and watering works should be carried out in a way to avoid combustion.

10.8.3 HSE Responsibility

10.8.3.1 Acts according to the checklists in 10.9.

10.8.3.2 The worker at the operation informs about the danger of load and equips it with the necessary protective equipment.

10.8.3.3 Environmental safety is ensured.

10.8.3.4 Ensure that personnel are not duties in the ship's warehouse or on the ground before gas measurements are made.

10.8.3.5 Take necessary fire precautions and control system operation.

10.8.3.6 Controls the presence of the required warning and warning signs.

10.8.3.7 Wrappings and packaging to be used in the activities of changing of cargo transport units, repair thereof or placing of the damaged packages inside the saving packages should be in accordance with the structure of dangerous materials and they shall be produced and certified as they are set out in chapter 6 of the IMDG Code

10.8.3.8 Fumigated cargo transport units and/or cargo transport units containing poisonous gases shall be stowed in a manner that their covers cannot be opened in an uncontrolled way.

10.8.3.9 Packaged cargoes containing Class 4.3 cargo and bulk cargo shall be prevented from being affected by rain, seawater and other factors.

	Document No	Release Date	Revised No	Revised Date	Page Number
					95
	 DANGEROUS GOOD SAFETY GUIDE				

10.8.3.10 If the evacuation of ship is partially completed, gas measurements will be conducted prior to assignment for the evacuation of cargo in the hold of the ship.

10.8.3.11 During handling of dangerous solid loads ,Canvas is laid between the ship and the port and a responsible person is assigned for cleaning the cargo scattered around.

10.8.3.12 At the areas where solid bulk dangerous cargoes releasing poisonous or flammable gases are handled, periodic controls will be conducted for measuring poisonous or flammable gas concentrations as well as their probable dissemination and the precautions taken will be recorded.

10.8.3.13 Water balls should be place in vicinity of areas where dangerous materials like coal, which have spontaneous combustion but not affected by water, are stored and watering works should be carried out in a way to avoid combustion. It will be considered if there is a drainage system for collecting the polluted water in the environment when the temporary storage area is announced.

10.9 Safe Handling of Dangerous Goods Operation Procedure Checklist

GENERAL

P.NO	Action	HSE	OP. OFF.	SHFT SUP.
ACCEPTANCE CARGO				

	Document No	Release Date	Revised No	Revised Date	Page Number
					96
	DANGEROUS GOOD SAFETY GUIDE				

1.	A coordination meeting will be held at least 1 day prior to the acceptance of dangerous cargoes to the port facility	X	X	
2.	The MSDS form about load is provided.		X	
3.	A detailed stowage plan, which identifies by class and sets out the location of all dangerous goods and marine pollutants on board, may be used in place of such a special list or manifest. (IMO FAL form 7)		X	
4.	The Certificate of Conformity for the ship carrying the dangerous cargoes will be checked.		X	
5.	Approved cargo handling / evacuation plan requested.		X	
6.	The dangerous cargo (es) to be accepted to the port: 9. Risk arising from dangerous cargo 10. Interaction with dangerous cargoes existing at the port facility, 11. Interaction with cargoes planned to be accepted to the port facility in the near future, 12. Conditions for stowage 13. Conditions for segregation 14. Requirement of materials and equipment with respect to emergency response 15. Sufficiency of emergency response equipments 16. Interaction with the neighboring area (s) The issues mentioned herein above will be discussed within the scope of current IMDG CODE documents and a management decision for accepting/rejecting will be taken.		X	
7.	If a decision is taken at the meeting in favor of accepting the dangerous cargo, management, operation, storage, safety and emergency response departments shall be notified and the necessary preparations and acceptance process will be commenced.		X	
8.	Number of equipments and cranes, teams and shifts and pier shall be specified.		X	
9.	The personnel who will work in the operation will be provided with information as regards the risks of the cargo and they will be equipped with the necessary protective outfit.		X	
10.	Required warnings, warning signs are provided around the area being handled.			
P.S. : In standard handled loads, meeting is optional. Previous meeting resolutions may apply.				

Safe Handling of Dangerous Goods with Packaged Operation Procedure Checklist

Dangerous cargo packed in our coastal facility will be estimated/evacuated as under tackle.

	Document No	Release Date	Revised No	Revised Date	Page Number
					97
	DANGEROUS GOOD SAFETY GUIDE				

GENERAL

P.No	Action	HSE	OP. OFF.	SHIFT SUP.
HANDLING				
1.	Environmental safety is provided by HSE. Until the gas measurements are made, personnel are not assigned to the ship's shelter and to the field.	X	X	X
2.	Controlling the work safety, control of equipment's, entry and exit of outsiders, safe handling of the cargo, environmental cleaning and duly performance of these works.		X	X
3.	Working order will be organized through the berth operator, shift supervisor and chief officer of the ship. Berth operator ensures the realization of loading or unloading as per the cargo plan. The responsibility of loading and unloading as per the cargo plan belongs to the Berth Operator.		X	X
4.	Packages containing Class 4.3 dangerous substances which, in contact with water, emit flammable gases and cargo transport units containing these types of packages will be stored at closed areas which are not affected from factors like rain, sea water and etc..	X	X	X
5.	It is checked that the communication equipment used in the operation area is exproof.	X	X	X
6.	The master and port authority will supervise the transport of dangerous cargoes within their respective areas of responsibility while the shift superintendent or the berth operator will ensure performance of proceedings in line with the risks related to the cargo and they shall notify the master regarding steps to be taken in emergency cases. Shift supervisor / Operation supervisor will coordinate with the 2nd Captain.		X	X
7.	Information on emergency procedures will be given to the person responsible for the ship and cargo handling	X		
8.	Necessary warnings will be made in order that the trucks do not to make loading exceeding loading limit and people in charge will pay necessary attention with respect to this issue.		X	X
9.	The drivers will wait at a specified location away from the vehicle during the loading and unloading of vehicles. It will be controlled if the driver has the necessary protective equipments or not.		X	X
10.	Dangerous cargoes are being handled, precautions are taken to prevent unauthorized access to handling areas.	X	X	X
11.	The operation shall be performed in accordance with the rules of separation specified in the separation scale for dangerous goods		X	X
12.	Fumigated cargo transport units and/or cargo transport units containing poisonous gases shall be stowed in a manner that their covers cannot be opened in an uncontrolled way		X	X

Operational procedure of safe handling of bulk solid dangerous cargoes Checklist

Hazardous solids in solid state will be loaded / unloaded as under tackle in our coastal facility.

GENERAL

	Document No	Release Date	Revised No	Revised Date	Page Number
					98
	DANGEROUS GOOD SAFETY GUIDE				

P.No	Action	HSE	OP. OFF.	SHFT SUP.
ELLEÇLEME				
1.	Necessary warnings will be made in order that the trucks do not to make loading exceeding loading limit. After loading the trucks will surely top off.	X	X	X
2.	The drivers will wait at a specified location away from the vehicle during the loading and unloading of vehicles. It will be controlled if the driver has the necessary protective equipments or not.	X	X	X
3.	Controlling the work safety, control of equipments, entry and exit of outsiders, safe handling of the cargo, environmental cleaning and duly performance of these works.			X
4.	Loading and unloading in accordance with the cargo plan			X
5.	If the evacuation of ship is partially completed, gas measurements will be conducted prior to assignment for the evacuation of cargo in the hold of the ship.	X	X	X
6.	Canvas is laid between the ship and the port and a responsible person is assigned for cleaning the cargo scattered around.	X	X	X
7.	Dangerous areas, where handling is done in line with the risks of the dangerous cargo, are determined, regulatory authority's buildings, other facility near the facility, the types of cargo handled at these facilities and features of other cargo which are temporarily stored and handled at the facility, and the fastest and the safest access opportunities as to emergency responses will be taken into consideration.	X	X	X
8.	At the areas where solid bulk dangerous cargoes releasing poisonous or flammable gases are handled, periodic controls will be conducted for measuring poisonous or flammable gas concentrations as well as their probable dissemination and the precautions taken will be recorded	X		
9.	Water balls should be place in vicinity of areas where dangerous materials like coal, which have spontaneous combustion but not affected by water, are stored and watering works should be carried out in a way to avoid combustion. It will be considered if there is a drainage system for collecting the polluted water in the environment when the temporary storage area is announced.	X	X	X
10.	Canvas to be used for avoiding the solid bulk dangerous cargoes from falling to the sea during evacuation or while loading to the ship, will be kept between the ship and the port during the operations.	X	X	X
11.	The master who will load/unload the solid bulk dangerous cargoes will receive the detailed loading or unloading plan which includes details as to the position and quantity of the cargo in the ship from the berth operator prior to the beginning to loading or unloading process. An agreement shall be reached between the master and the berth operator as to the said loading or unloading plan.		X	X

10.10 EmS (Emergency Procedures for Vessels carrying Dangerous Goods) and MFAG (Medical First Aid Guide)

In emergencies, it is important to use IMSBC, IBC or IGC Codes for bulk cargo as well as all available IMDG Code, EMS and MFAG information.

	Document No	Release Date	Revised No	Revised Date	Page Number
					99
	 DANGEROUS GOOD SAFETY GUIDE 				

10.10.1 EmS

EmS contains procedures for the actions that can be taken if there is a fire or spill of dangerous goods.

It contains general procedures applicable to an entire substance class as well as procedures specific to certain products.

Examples of the information found in the specific "emergency schedules" are necessary protective equipment and the types of extinguishing agents that can be used to put out fires involving dangerous goods.

EmS is divided into EmS for fires and EmS for spills. There will be EmS numbers for every UN number in column 15 of the Dangerous Goods List. EmS number does not have to be specified in the Dangerous Goods Declaration.

10.10.2 MFAG

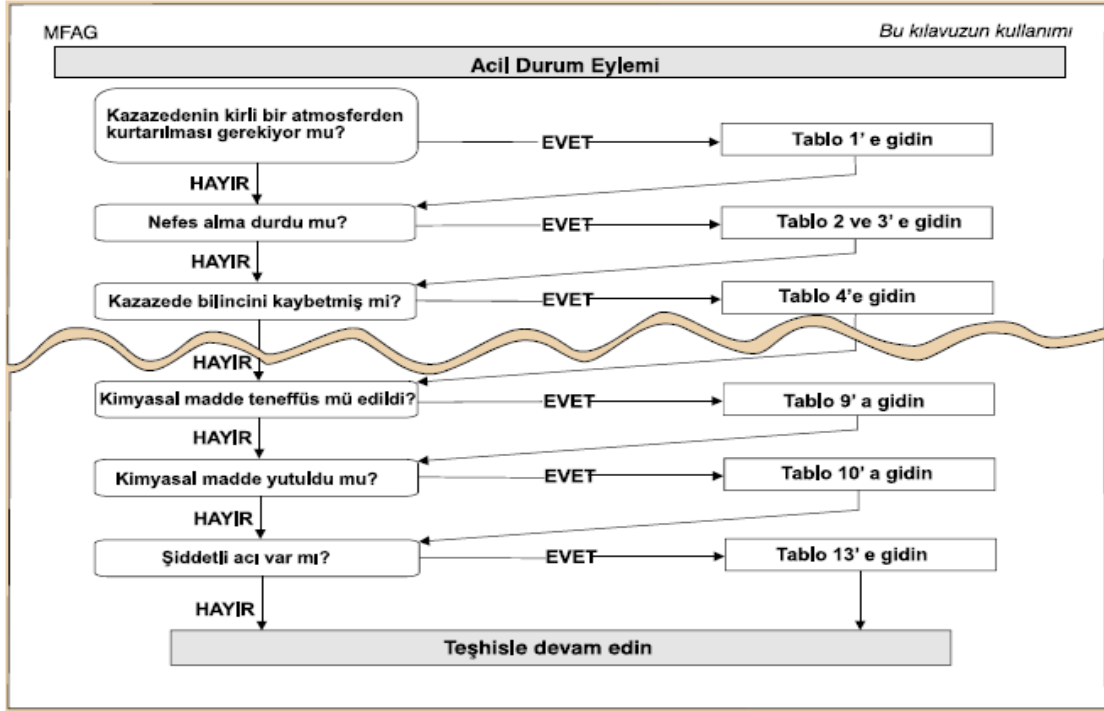
MFAG table numbers do not have to be stated on the Dangerous Goods Declaration.

MFAG consists of a flow chart which shows what actions should be taken, based on the situation and symptoms, when a person has been exposed to dangerous goods of some kind. However, it is important that the person has been trained to use MFAG in advance so that it will work in an emergency.

The person can also get in touch with a doctor to get assistance treating an injured person.

Usage information is below.

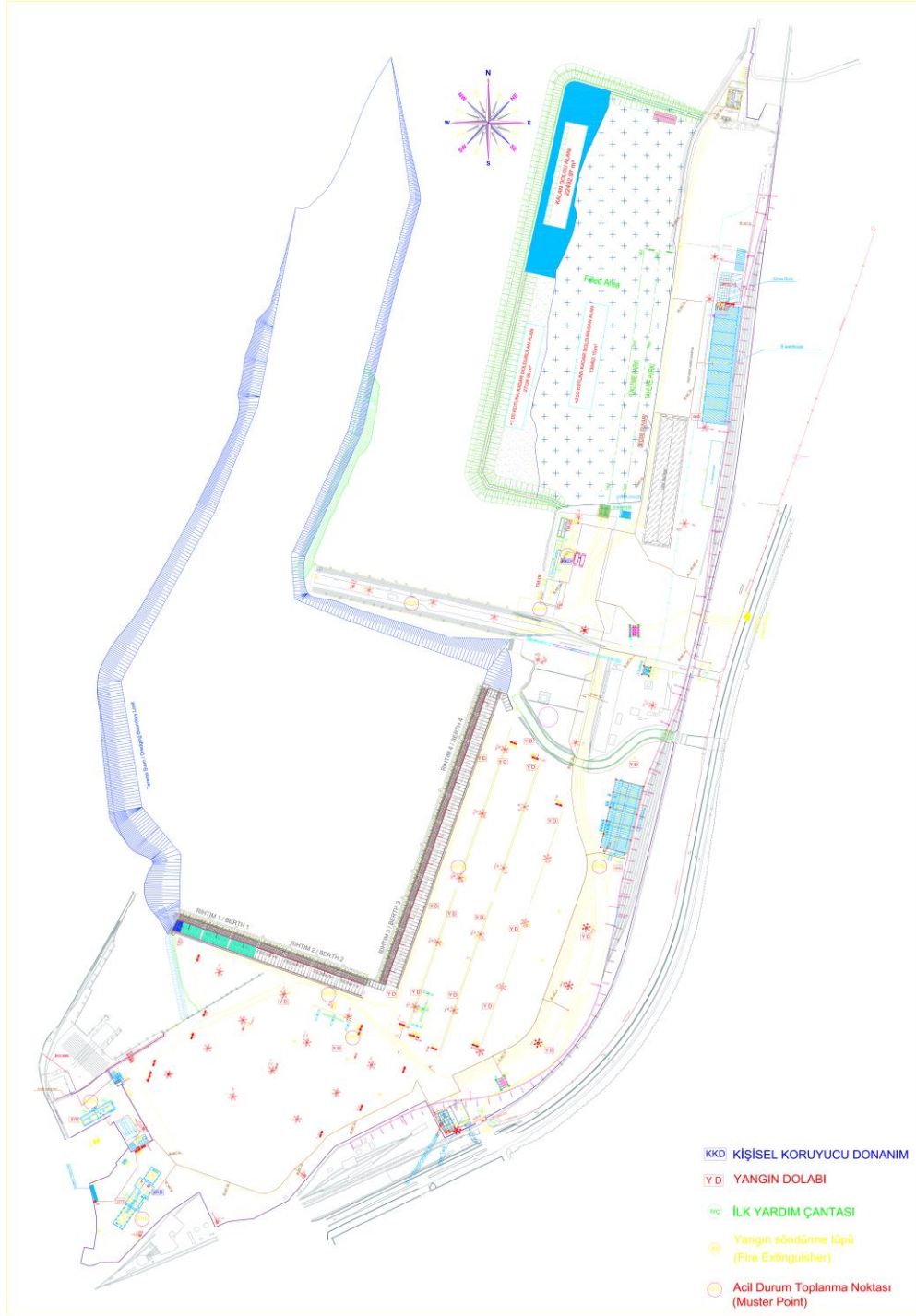
	Document No	Release Date	Revised No	Revised Date	Page Number
					100
	DANGEROUS GOOD SAFETY GUIDE				



11. ANNEXES

11.1 General Site Plan of Port Facility

	Document No	Release Date	Revised No	Revised Date	Page Number
					101
	 DANGEROUS GOOD SAFETY GUIDE 				



11.2 General View Photos of Port Facility

	Document No	Release Date	Revised No	Revised Date	Page Number
					102
	DANGEROUS GOOD SAFETY GUIDE				

11.3 Emergency Contact Points and Contact Information

ASSIGNMENT	NAME SURNAME	PRIORITY	TELEPHONE	
			INTERPHONE	MOBILE
GENERAL MANAGER	NİLHAN DEĞER	1	-	0532 267 4231
PORT DIRECTOR	UĞUR KILIÇ	1	7425	0534 066 1213
HEALTH-SAFETY OFFICER	EDA ERDOĞAN	1	-	0542 641 4454
ADMINISTRATIVE AFFAIRS MANAGER	ŞÜKRÜ DİLEK	1	7419	0532 449 5980
PLANNING&OPR. MANAGER	CİHAN AYDIN	1	7426	0535 661 4611
DOCTOR	BEYTULLAH PALA	1	-	0530 423 69 64
TECHNICAL COORDONATOR	NİLAY AYRAN	1	7424	0530 469 7701

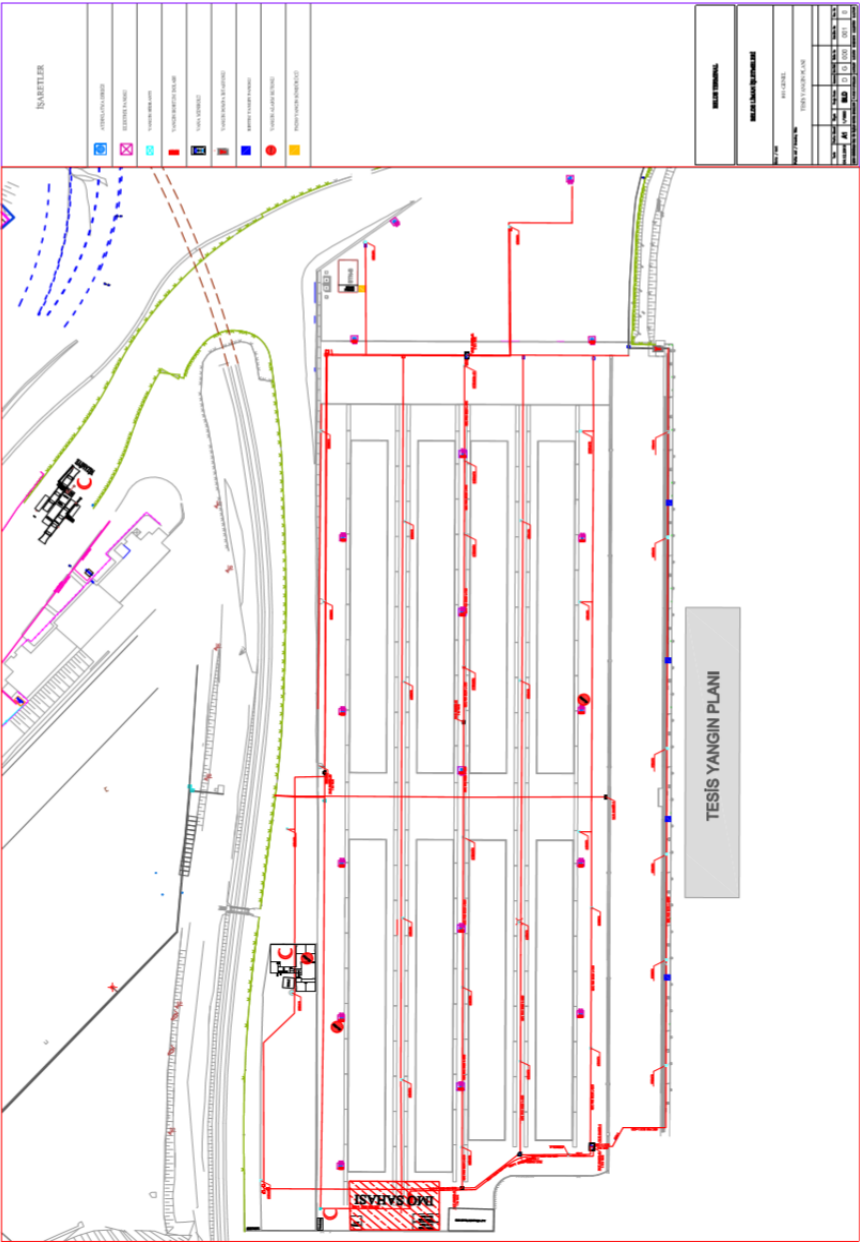
UNIT	PRIORITY	TELEPHONE
KOCAELİ BÖLGE LİMAN BAŞKANLIĞI	1	0 262 528 37 54
KOCAELİ BELEDİYESİ İTFAİYESİ	1	110
SAHİL GÜVENLİK İSTANBUL GRUP KOMUTANLIĞI	1	0 212 242 97 10
İLK YARDIM	1	112
DEVLET HASTANESİ	1	0 262 309 20 00
KOCAELİ GÜMRÜK BAŞ MÜDÜRLÜĞÜ	2	444 8 482
POLİS İMDAT	2	155
JANDARMA	2	156

11.4 General Situation Plan of Areas where Dangerous Cargo Handling

	Document No	Release Date	Revised No	Revised Date	Page Number
					104
	DANGEROUS GOOD SAFETY GUIDE				

11.6 General Fire Plan of the Facility

	Document No	Release Date	Revised No	Revised Date	Page Number
					105
	DANGEROUS GOOD SAFETY GUIDE				



11.7 Emergency Plan

	Document No	Release Date	Revised No	Revised Date	Page Number
					106
	 DANGEROUS GOOD SAFETY GUIDE 				

It is kept as a separate document at the port facility and is renewed at least every 3 years.

Details of the contingency plan are as follows.

Emergency procedures,

Emergency response organization chart,

Name, title and contact details of the person/organisation preparing emergency procedures,

The name, title and contact information of the authorized person assigned to coordinate the emergency response activities that may occur at the port facility, as well as their duties and responsibilities

The name, title and contact information of the facility authority and its duties and responsibilities to contact the Port Authority and other related institutions and organizations in case of emergency,

The names and duties of the teams designated for emergency response and the names, duties and responsibilities of the personnel assigned to these teams,

Nature and capacity of resources, equipment and equipment to be used by the port facility for emergency response,

Measures to be taken and actions to be taken in order to keep the serious conditions that are foreseeable to cause emergency situations under control and to minimize the adverse effects they may cause, and the facilities, capabilities and capacity of the facility,

Measures to be taken to prevent or minimize potential risks to persons port facility in the event of an emergency, and the nature and methods of notification of warnings, as well as regulations on what persons should do in the face of a warning,

In case of emergency, the first notification procedures to be made to the Port Authority and the content of the information to be provided to this notice and the procedures for the transmission of this information to the Port Authority as soon as new information is obtained,

Training for emergency personnel,

Coordination methods to be provided with emergency teams outside the port facility in case of emergency,

Quality and period of training for emergency situations,

Arrangements for the provision of support for measures taken outside the port facility in case of emergency.

Emergency plans must cover each of the following emergency situations

- a) Facility, equipment and field fires
- b) Cargo fires belonging to each hazard cargo class and sub-hazard classes allowed to be handled at the port
- c) Ship fires,
- d) Explosion,
- e) Accidental death and serious injury
- f) Natural disasters such as earthquakes, floods, landslides, tsunami waves
- g) Adverse weather conditions such as very strong wind, thunderstorms, excessive snow or icing,
- h) Leakage, leakage or dumping of hazardous substances belonging to each hazard class or sub-hazard class allowed to be handled at the port,
- i) Marine pollution (e.g.: oil / fuel leakage or hazardous load into the sea or spill/drop of environmentally hazardous material),
- j) Gas leakage,
- k) Power outage.

	Document No	Release Date	Revised No	Revised Date	Page Number
					107
	DANGEROUS GOOD SAFETY GUIDE				

11.8 Plan Of Emergency Gathering Places

As in Article 11.1

11.9 Emergency Management Scheme

(The persons involved in this organization and their contact information are registered as current.)

	Document No	Release Date	Revised No	Revised Date	Page Number
					110
	DANGEROUS GOOD SAFETY GUIDE				

11.11 Leakage Areas and Equipment for CTU and Packages, Input / Output Drawings

It is located in the settlement plan.

11.12 Inventory Of Port Service Ships

	Document No	Release Date	Revised No	Revised Date	Page Number
					111
	DANGEROUS GOOD SAFETY GUIDE				

3rd party oriented service is taken.

11.13 Port Authority administrative boundaries, anchor points and maritime coordinates of pilot captain landing / boarding points

	Document No	Release Date	Revised No	Revised Date	Page Number
					112
	 DANGEROUS GOOD SAFETY GUIDE 				

The port administrative area of Kocaeli Port Authority is the sea and port area which is bounded by the Turkish territorial waters adjacent to this area and which lies to the east of the line drawn from the (A) coordinate to the true South (180°) direction on the line formed by the following coordinates.

B) Mooring sites

b) Yarımca mooring area: ships carrying dangerous materials, nuclear-powered military ships and quarantine mooring area is the sea area formed by the following coordinates.

- 1) 40° 46' 27" K – 029° 39' 30" D
- 2) 40° 45' 14" K – 029° 39' 30" D
- 3) 40° 45' 02" K – 029° 41' 30" D
- 4) 40° 46' 19" K – 029° 41' 30" D

c) Hereke mooring area: the mooring area of ships that do not carry dangerous materials is the sea area formed by the following coordinates.

- 1) 40° 46' 22" K – 029° 37' 11" D
- 2) 40° 45' 25" K – 029° 37' 11" D
- 3) 40° 45' 14" K – 029° 39' 30" D
- 4) 40° 46' 16" K – 029° 39' 30" D”

d) Fuel barge mooring area: the mooring area for fuel barge is the sea area formed by the following coordinates.

- 1) 40° 46' 41,25" K – 029° 37' 46" D (Coast)
- 2) 40° 46' 20,50" K – 029° 37' 46" D
- 3) 40° 46' 16" K – 029° 39' 30" D
- 4) 40° 46' 40" K – 029° 39' 30" D (Coast)

11.14 Emergency response equipment against Marine Pollution found at Port facility

As in the approved Marine Pollution Emergency Response Plan.

	Document No	Release Date	Revised No	Revised Date	Page Number
					113
	DANGEROUS GOOD SAFETY GUIDE				

11.15 Personal protective equipment (PPE) usage map

	Document No	Release Date	Revised No	Revised Date	Page Number
					114
	 DANGEROUS GOOD SAFETY GUIDE 				

11.16 Dangerous Goods Incidents Notification Form

Number-Name		
Company/Institution		
Consignor		CONTACT DETAILS

	Document No	Release Date	Revised No	Revised Date	Page Number
					115
	 DANGEROUS GOOD SAFETY GUIDE 				

Inform		
PORT FACILITY "DANGEROUS GOODS INCIDENT NOTIFICATION" DATE:		
1. The time in which the accident occurred,		
2. If the accident is known, how it occurred and the cause ,		
3. Location (coastal facility and/or ship), position and impact area where the accident occurred, Information on the ship involved in the accident (name, flag, IMO number, equipment, operator, load and quantity, captain's name and similar information)		
4. Meteorological conditions		
5. The UN number of the dangerous goods, the appropriate transport name (which shall be based on the legislation specified in the dangerous substance definition) and the quantity , Danger class of dangerous goods or sub-danger section, if any Packing group of dangerous goods, if any , Additional risks of dangerous goods such as marine pollutants, if any Details labels and signs of dangerous goods Specifications and number of packaging, cargo handling unit and container where dangerous goods are transported Manufacturer, consignor, carrier and consignee of dangerous goods		
6. The extent of damage / pollution,		
7. Number of dead and injured in accident (if any),		
8. How to respond to the accident		
9. Which organizations are asked for help,		
10. Other ships or neighboring facilities that may be affected by the accident,		
Form maker : Name surname : Title : Signature :		

11.17 Control Results Notification Form for Dangerous Cargo Transport Units (CTUs)

The following is the form containing the CTU control results requested by the administration to be sent to the port offices in three-month periods.

	Document No	Release Date	Revised No	Revised Date	Page Number
					116
	DANGEROUS GOOD SAFETY GUIDE				

Yıl / Dönem /	Sayı	Yüzdelik
Kontrol edilen paketler:			
Kusurlu paketler:			
. toplam			
. yurt içinde doldurulmuş			
. yurt dışında doldurulmuş			
Kusurlar:			
Dokümantasyon:			
. Tehlikeli Yük Deklarasyonu			
. Konteyner/Araç Paketleme Sertifikası			
Plakalama ve markalama			
Konteyner Güvenlik Sözleşmesi onay levhası			
Ciddi yapısal kusurlar			
Kara tankerleri bağlama eklentileri			
Taşınabilir tank veya kara tankerleri (uygunsuz veya hasarlı)			
Etiketleme (paketler için)			
Paketleme (uygunsuz veya hasarlı)			
Yükün segregasyonu			
Paketin içinin istiflenmesi / bağlanması			

12. ABBREVIATIONS

VHF, Very High Frequency
CTU, Cargo Transport Unit
IMDG, International Maritime Dangerous Goods
IMO, International Maritime Organization

	Document No	Release Date	Revised No	Revised Date	Page Number
					117
	 DANGEROUS GOOD SAFETY GUIDE 				

UN, United Nations

PEAR, People, Environment, Actions, Resources

AFAD, Disaster and Emergency Management Presidency

SDS, Safety Data Sheet

MOTAT, Mobile Waste Monitoring System

ILO, International Labor Organisation

13. PRESENTATION

This guide applies to the entry and availability of dangerous cargoes in Port areas, both on board and on the beach. These are intended to be valid for all ships visiting a port, regardless of their

	Document No	Release Date	Revised No	Revised Date	Page Number
					118
	 DANGEROUS GOOD SAFETY GUIDE 				

flagging. It should not be applied to ships ' rations and equipment or to troop transport ships and warships.

2.1 The purpose of this section is to assist the persons and institutions preparing the national legal requirements to ensure that such requirements are made as effective as possible by specifying all possible situations of dangerous loads in cargo areas but without establishing validity for exceptional circumstances.

It is important that definitions are carefully examined and used to avoid misunderstanding.

14. DEFINITIONS

Interface means dock, breakwater, breakwater, dock, pier, marine terminal or similar structure (with or without floating condition) to which a ship can be connected. This includes any facility or property other than a ship used directly or indirectly for loading or unloading dangerous cargoes.

Port Facility means any person or entity that controls a port operation on a daily basis.

	Document No	Release Date	Revised No	Revised Date	Page Number
					119
	 DANGEROUS GOOD SAFETY GUIDE 				

Bulk means cargoes intended to be carried on or within a tank permanently fixed to the vessel or without decoupling to store in the cargo area, which is a structural part of a vessel.

Cargo companies means a shipper (shipper), carrier, forwarder, groupage agent, packing center or any person, company or institution involved in any of the following activities: identification, storage, packaging, packaging, safety, labelling, plate fitting or documentation of dangerous cargoes in the port for the receipt of cargoes, transport by sea and always have control over the cargo.

A certificate of conformity means a document issued by or on behalf of the administration in accordance with applicable laws for the structure and equipment of the ship certifying that the ship's structures and equipment are suitable for dangerous cargo to be carried on board.

Dangerous cargo means any of the following cargoes, whether or not carried in packaging, bulk packaging or bulk, within the scope of the following documents:

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 wastes, covered by MARPOL 73/78 Annex II and laws for the construction and equipment of ships carrying hazardous chemicals in bulk;
- Solid materials containing chemical hazards and solid hazardous materials in bulk (Mhbs), including waste covered by Group B annexes in the code of safety practices for solid bulk cargoes (BC law) ;
- Harmful substances in packaged form (covered by Annex III of MARPOL 73/78); and
- Dangerous goods, materials or substances (covered by the code)

The term of a dangerous goods is not classified as hazardous dangerous cargo or any other dangerous agents and dangerous gas to neutralize filled with a sufficient amount of cleaned free from residues of cargoes in the absence of pre-uncleaned packaging any dangerous cargo moved includes (tank-container storage, partition dec bulk containers (IBC), bulk containers, portable tanks or tank vehicles).

Certificate of Conformity means a certificate issued by or on behalf of the Administration to a ship carrying dangerous goods in bulk or in solid form in bulk under SOLAS regulation II-2 / 19.4, which provides evidence that the structure and equipment comply with the requirements of the regulation.

	Document No	Release Date	Revised No	Revised Date	Page Number
					120
	 DANGEROUS GOOD SAFETY GUIDE 				

Flexible pipe means flexible tubing and end fittings with end-sealed means used for the transfer of dangerous cargoes.

Handling, including intermediate storage, such as temporary storage of dangerous cargoes in the port area during their transport from the point of origin to the destination route for the purpose of changing the means of transport and movement within the port, which forms part of the transport supply chain for cargoes, and from a ship, railway carriage, vehicle, freight, loading or unloading from a container or other means of transport, intermediate transport between ships or other means of transport or transfer within a ship or in a warehouse or terminal area. This term has been extended to cover all operations related to dangerous cargoes in the port area.

Hot work refers to open fire and flame, electrical tools or other hot fixing, grinding, welding, burning, cutting, welding or other heat-generating or sparking repairs that may be dangerous due to the presence or proximity of dangerous cargoes.

Captain means a person who has command of a ship. The Pilot is not included.

Packaging means loading and filling dangerous cargoes to buyers, intermediate containers for bulk transport (IBCs), freight containers, tank containers, portable tanks, railway wagons, bulk containers, vehicles, ship-barges or other cargo transport units.

Pipeline, dangerous cargoes in a port of or related to the loading that is used for all pipes, connections, valves and other auxiliary facilities, apparatus and equipment means, however, flexible pipe that connects to the pipes of the ship, apparatus or equipment of any ship except for the ends of the pieces of pipe, a piece of equipment or apara, flexible pipe, loading arm will not include.

Port area means land and sea area determined by legislation.

Note: Some port areas may overlap and legal requirements must be taken into account for this situation. In creating the definition of the port area in the legislation, care must be taken to ensure that the law applies to all facilities that may be involved.

The Port Authority means any person or institution authorized to exercise effective control in the port area.

Administration (s) refers to the national, regional or local authority that has the authority to enforce the legal requirements and is authorized to enforce the legal requirements in relation to a port area.

	Document No	Release Date	Revised No	Revised Date	Page Number
					121
	 DANGEROUS GOOD SAFETY GUIDE 				

The person responsible for this purpose or otherwise certified by the regulatory authority with sufficient knowledge and experience which is well known, possessing the ability to make all decisions in relation to a specific task or captain of a ship on the beach means a person assigned by an employer.

A ship means any marine vessel used for the carriage of dangerous cargoes, including those used in inland waters, which may or may not be suitable for going out to sea.

Ship's store means the materials on board for the maintenance, storage, safety, use or navigation of the ship (excluding fuel and compressed air used for the ship's primary propulsion machines or stationary ancillary equipment) or for the safety or comfort of the ship's passengers or crew.

It is stated that the ship's store include those specified for the comfort of the passenger and crew that a ship may need for the normal operation of a ship, but not the items that a ship may carry for the purpose of carrying out specialist functions, eg. explosives carried by a deep sea rescue ship; or dangerous goods used by a well-propelled ship.

Responsible person means a person who has up-to-date knowledge, experience and competence to perform a specific task.

Stacking means, the deck of the ship, warehouses, barracks, or other areas to packages, intermediate bulk containers (IBCS), freight containers, tank containers, portable tanks, bulk containers, vehicles, ships, barges carried on the positioning of units and other bulk cargo means cargo shipping.

Shipping, means moving in Port Areas with one or more transport vehicles.

Unstable matter refers to a substance that, due to its chemical structure, tends to cause hazardous reactions under certain temperature conditions of polymerization or otherwise, or when in contact with the catalyst. Reducing this trend can be accomplished through special shipping conditions or by using an adequate amount of chemical inhibitors or stabilizers in the product.