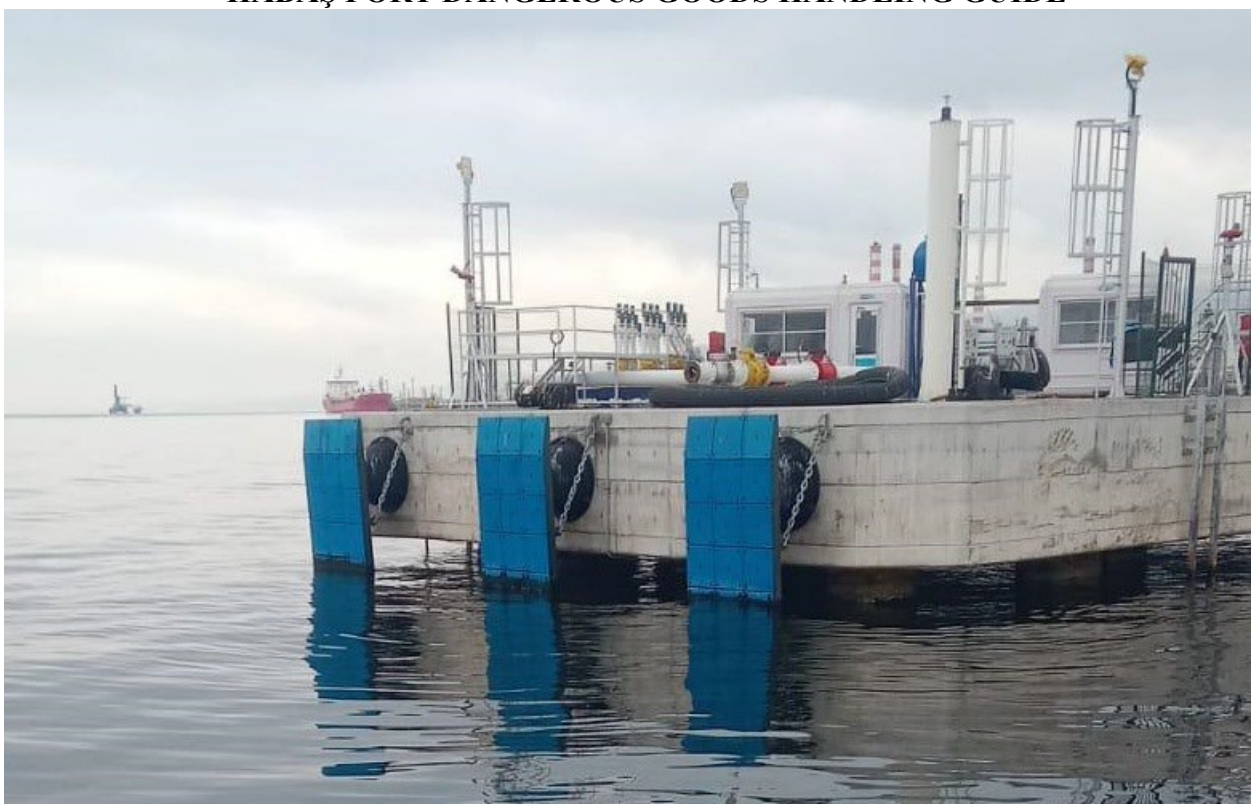
HABAŞ PETROLEUM PRODUCTS INDUSTRY&TRADING INC.			
DANGEROUS GOODS HANDLING GUIDE			
Corroboratory DIRECTOR	**Publication Date** 31.12.2015	**Revision Date** 18.06.2025	**Revision No** 4

HABAŞ PORT DANGEROUS GOODS HANDLING GUIDE



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REVISION PAGE

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1. INTRODUCTION

1.1. General Information of the Port Facility

1.1.1 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.
1.1.2 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.
1.1.3 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.
1.1.4 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.
1.1.5 Whilst the total transport chain includes inland, port and marine elements, it is essential that every care is taken by those responsible for the matters in 1.4 and that all relevant information is passed to those involved in the transport chain and to the final consignee. Attention should be paid to the possible differing requirements for different modes of transport.
1.1.6 The safe transport and handling of dangerous cargoes is based on correct and accurate application of regulations for transport and handling of such 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 by properly planned and carried out training and retraining of persons concerned.
1.1.7 The codes and guides are under continuous review and are regularly revised. It is essential that only the most up-to-date editions are used. The contents of these codes and guides have been repeated in these Recommendations only to the extent necessary.

FACILITY INFO FORM

1	Facility Name	HABAŞ Sınai ve Tıbbi Gazlar İstihsal Endüstrisi A.Ş.		
2	Facility Communication Details	Fuat Paşa Sk. No:1 Kat: 4 Soğanlık/Kartal/İstanbul Tel: +90 216 4536400 Fax: +90 216 4525147 e-mail: smd@habas.com.tr		
3	Port Name	HABAŞ Tütünçiftlik Platformu		
4	Port Location	KOCAELİ		
5	Port Communication details	Güney Mh. Sümbül Sk. NO:5 Körfez / KOCAELİ Tel : +90 262 527 19 44 Fax: +90 262 527 43 40 e-mail: smd@habas.com.tr		
6	Geographical area	MARMARA REGION		
7	Harbour Master	KOCAELİ DISTRICT PORT AUTHORITY Address: Atalar Mah.Sahil Yolu Cad.No:26 Yarımca-Körfez/KOCAELİ Tel: +90 262 528 37 54 e-mail: kocaeli.liman@uab.gov.tr		
8	Municipality	KÖRFEZ MUNICIPALITY Address: Mimar Sinan Mahallesi, Eşref Bitlis Caddesi N0: 369 Körfez/Kocaeli Tel: +90 262 528 23 02 e-mail: bilgi@korfez.bel.tr		
9	Free Zone	Within the borders of Körfez Municipality affiliated to Kocaeli Municipality		
10	Validity date of Coastal Facility Operation Permit/Temporary Operation Permit	15.10.2024		
11	Operating status of the facility (x)	Own load and additional 3rd party (X)	Own load (....)	3rd party (....)
12	Port Authority	Semih DOĞAN Fuat paşa Sokak No :1/4 Yenimahalle Soğanlık Kartal /İstanbul Tel:0555 756 97 17		

13	Port IMDG Authorized Person	Emir Can Tel: 0543 918 09 08 e-mail: emir.can@habas.com.tr
14	IMDG Consultant Company	Yeşil TMGDK-Elif AYDOĞAN Tel: 0533 019 13 61 e-mail: elif@yesilgrup.com.tr
15	**Port positions**	
	Evacuation Platform	29º 47’ 04,16” (East)-40º 44’ 23,88” (North)
	Dolfen-1	29º 47’ 08,78” (East)-40º 44’ 25,94” (North)
	Dolfen-2	29º 47’ 05,92” (East)-40º 44’ 25,49” (North)
	Dolfen-3	29º 46’ 59,46” (East)-40º 44’ 23,35” (North)
	Buoy	29º 47’ 10,28” (East)-40º 44’ 21,38” (North)
	Pipelines Coastal Access Point	29º 46’ 47,71” (East)-40º 44’ 34,76” (North)
16	Handling IMDG Cargo Type	LPG, Fuel Oil, Propane
17	Dangerous goods handled at the facility (from the types of cargo in 16th article, loads other than the IMDG Code will be written separately. Additional cargo request will be sent to the port authority with Annex-1 form. It will be added to DGHG when appropriate)	-
18	Classes for handled cargo subject to IMDG Code	Class 2 (LPG and Propane) Class 3 (Fuel oil)
19	Groups in characteristic table for handled cargo subject to IMSBC Code	-
20	Vessel type	Tank
21	Distance to main road	2 km
22	Distance to railway (kilometers) or railway connection (Yes/No)	2 km No
23	Distance to airport	45 km
24	Annual handling capacity	500.000 ton/year
25	Scrap Handling	-
26	Border Gate (Yes/No)	No
27	Custom Area (Yes/No)	No
28	Machinery and equipment	Filling arms - 2 pieces of 10” LPG lines - 1 piece of 8” Fuel Oil line
29	Storage Tank Capacity (m^3)	-
30	Open storage area (m^2)	-
31	Semi-closed storage area (m^2)	-
32	Fully-closed storage area (m^2)	-
33	Fumigation area	-
34	Name/title and contact details of the pilotage Towing services provider	Römorkaj Hizmetleri: Marin Römorkör ve Kılavuzluk Anomim Şirketi Adres: Mimar Sinan Mahallesi Sahil Caddesi No: 90/1 41780 Yarimca, Korfez, KOCAELI Tel: +(90) 262 528 14 04 Fax: +(90) 262 528 14 01

		E-posta: yarimca@marintug.com Kılavuzluk Hizmetleri : Ankaş - Dekaş Anadolu Kılavuzluk A.Ş. Adres: Mimar Sinan, Denizciler Cd. No:69, 41780 Körfez/Kocaeli Tel: (0262) 528 33 00- 528 79 03 Fax:(0262) 528 53 72 VHF Çalışma Kanalı: CH.12 VHF Working Chanel: CH.12			
35	Has a Security Plan been created? (Yes No)	Yes			
36	Waste Acceptance Facility Capacity (This section will be arranged separately according to the waste accepted by the facility)	Waste Type	Capacity (m^3)		
		-	-		
37	Piers				

Pier No	Length (mt)	Width (mt)	Max. depth (mt)	Min. depth (mt)	Max vessel (DWT veya GRT-metre)
Habaş Platform	20	16	18	14	40000 DWT

Pipeline name (if available on site)	Number (piece)	Length (mt)	Diameter (inch)
seabed LPG pipeline	2	3100	10
seabed Fuel Oil pipeline	1	3100	8

1.2. Handled and Temporarily Stored Dangerous Cargo in The Port Facilities Loading/ Unloading, Handling and Storage Procedures

1.2.1 The master of a ship and the port operator, within their respective areas of responsibility, should ensure that:
1.2.1.1 Every person engaged in the handling of dangerous cargoes exercises reasonable care to avoid damage to packages, unit loads and cargo transport units. (This can be achieved by making all persons handling dangerous cargoes aware of the dangers which can occur during loading and unloading dangerous cargoes. Persons handling dangerous cargoes should also know how to handle the equipment they use and be aware of the limits of the equipment.)
1.2.1.2 Whilst dangerous cargoes are being handled, precautions are taken to prevent unauthorized access to handling areas. (Unauthorized persons who enter areas where dangerous cargoes are handled can cause dangerous situations, not only to themselves but also to authorized persons working in these areas. To prevent such situations, access to the entrance to the handling area should be controlled. When persons who are not directly involved in the handling of dangerous cargoes have to pass through the area, they should only do so via designated walkways.)
1.2.1.3 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.

1.2.2 Dangerous cargo areas
1.2.2.1 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.
1.2.2.2 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.
1.2.2.3 The spaces should enable an adequate segregation of dangerous cargoes in accordance with the legal requirements of the regulatory authority.

1.2.3 Container stacking areas/rail sidings/lorry parking areas
1.2.3.1 Separate areas may be designated for specific dangerous cargoes.
1.2.3.2 Segregation requirements of the regulatory authority should be met when designating areas.
1.2.3.3 Care should be taken that, in case of an emergency, adequate access is provided for handling equipment, emergency services, etc.
1.2.3.4 Adequate emergency facilities should be provided. These should be appropriate to the hazards of the dangerous cargoes to be handled.

1.2.4 Repairing/cleaning facilities
1.2.4.1 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.
1.2.4.2 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.

1.2.5 Reception facilities

Facilities should be provided for the reception and disposal of bilge water, wastes, ballast and slops, contaminated with dangerous cargoes, as appropriate.

1.2.6 Tank storage and pipelines

Permanent installations for the storage of liquid dangerous cargoes, including pipelines, in the port area should be designated, constructed and maintained in accordance with the regulatory authority's legal requirements, taking into account temperature, the development of pressure, compatibility of substances and the need to ensure harmonization with the requirements laid down for ships.

1.2.7 Liquid Bulk Dangerous Cargoes (Including Liquified Gas)

1.2.7.1 The port operator should ensure that, before handling liquid bulk dangerous cargoes at any berth on the shore, appropriate warning notices, preferably pictograms, are placed at all entrances and approaches to the port.

1.2.7.2 The port operator should ensure that liquid bulk dangerous cargoes are handled and kept in such a manner so as to preclude the possibility of a dangerous interaction with incompatible cargoes or materials.

1.2.7.3 The port operator should ensure that effective communication has been established between a berth used for the handling of liquid bulk dangerous cargoes and the installation from or into which such cargoes are being transferred. Communication equipment so used should be of a type safe for use in a flammable atmosphere or explosive atmosphere and be in a good order.(Note: VHF equipment operating on frequencies allocated to the maritime mobile service should only be used for communications between a ship and the shore installations where allowed by the regulatory authority and where permitted by the port authority.)

1.2.7.4 The port operator should ensure that a pipeline or flexible pipe:

- Is not used for cargoes other than those for which it is suitable, having regard to the temperature and compatibility of such cargoes;
- Is suitably protected if it is liable to be damaged by impact; and
- Is electrically continuous except for the inclusion of an insulating flange or non-conductive spool piece when used for the transfer of a flammable liquid.The pipeline on the seaward side of the insulating section should be electrically continuous to the ship, and that on the landward side should be electrically continuous to the jetty earthing system. The insulating flange should be tested in accordance with chapter 17 of ISGOTT.

1.2.7.5 Adequate precautions are taken to prevent a short-circuit of the insulating

1.2.7.6 The insulating and earthing systems are inspected and tested at appropriate intervals to ensure their effectiveness; and

1.2.7.7 Any other metallic connections between the port and the ship are protected or arranged so as to ensure that there is no possibility of incentive sparking where a flammable atmosphere may be present.

1.2.7.8 The port operator should ensure that the master of a ship is notified of any conditions which may require precautions to be taken for avoidance of sources of ignition on the ship such as galley stoves or cooking appliances with non-immersed elements.

1.2.7.9 The port operator should ensure that all drain holes and pipes and all other drains of any kind on the jetty, where liquid bulk dangerous cargoes might escape in case of an accident, are closed before handling commences and are kept closed during the whole of the period of the handling of liquid bulk dangerous cargoes.

1.2.7.10 In case of a spillage occurring, adequate means of containment and disposal, as required by the regulatory authority or port authority, should be available at short notice.
1.2.7.11 The port operator should ensure that any shore communication cables to a ship are of a type certified safe for use in hazardous areas.
1.2.7.12 The port operator should ensure that no shore electrical supply is connected to a ship, except a supply of a type certified safe for use in flammable atmosphere, or in an emergency and with approval of the port authority.
1.2.7.13 The port operator should ensure that no connection, cable or electrical supply is used near a ship carrying flammable cargoes at a port where such cargoes are present or where a flammable atmosphere may be present, unless it is certified for use in suchplaces.

1.2.8 Handling
1.2.8.1 Flexible pipes
The master of a ship and port operator within their respective areas of responsibility should ensure that:

- No flexible pipe is used for cargoes other than those for which it is suitable, having regard to the temperature and compatibility of such cargoes, or at any working pressure for which it is unsuitable;
- Each type of flexible pipe complete with end fittings has been prototype tested and a certificate provided to show the bursting pressure. Prototype hoses may not be used in service;
- Before being placed in service, each flexible pipe supplied should be hydraulically tested in accordance with the requirements of the regulatory authority;
- Before being put into use on any day a flexible pipe, other than one being used at a monobuoy or other off-shore facility, is visually inspected. Flexible pipes used at monobuoys and other off-shore facilities should be inspected at frequent intervals;
- A flexible pipe is permanently and legibly marked, showing the type of hose, its specified maximum working pressure and its month and year of manufacture;
- There are adequate electrical insulation flanges;
- The length of each flexible pipe is sufficient to satisfactorily operate within the defined operating envelope without overstressing the terminal connections;
- A flexible pipe rigged for the handling of liquid bulk dangerous cargoes is kept under adequate supervision;
- There are adequate procedures for the disconnection of the flexible pipe in the event of an emergency, to protect the environment, personnel safety and equipment; and
- Any flexible pipe after use is drained and purged of the liquid bulk dangerous cargoes and that in cases where this is not possible or has not been carried out, the flexible pipe is provided at each free end with a suitable means to prevent the escape of vapour or admission of air. Such equipment should always be provided on flexible pipes used for the handling of highly toxic liquids or liquefied gas.

1.2.8.2 Loading arms
The master of a ship and port operator within their respective areas of responsibility should ensure that:

- There are adequate procedures for the operation, supervision and disconnection of loading arms in the event of emergency, to protect the environment, personnel safety and equipment;
- No loading arm is used for substances other than those for which it is suitable, having regard to the temperature and compatibility of such substances and the working pressure or flow rate

for which it is suitable;
- In an emergency there are adequate means for draining the inner and outer arms after normal use and before disconnection;
- The operating envelope of the loading arms is suitable for the ship;
- The manifold spacing is satisfactory when more than one loading arm is connected;
- Each loading arm has been periodically maintained and has a current certificate for its fitness for use; and
- There are adequate electrical insulation flanges.

1.2.8.3 Preliminary precautions

1.2.8.3.1 The master of a ship and port operator within their respective areas of responsibility, should ensure that cargo handling controls, gauging systems, emergency shutdown and alarm systems, where applicable, have been tested and found to be satisfactory before cargo handling operation begins.

1.2.8.3.2 The master of a ship and port operator should before liquid bulk dangerous cargoes are pumped into or out of a ship from or into a shore installation:

1.2.8.3.2.1 Agree in writing on the handling procedures including the maximum loading or unloading rates taking into account:
- The arrangement, capacity and maximum allowable pressure of the ship's cargo lines and the shore pipelines;
- The arrangement and capacity of the vapour venting system;
- The possible pressures increase due to emergency shut-down procedures;
- The possible accumulation of electrostatic charge; and
- The presence of responsible persons during start up operations on board ship and ashore;

1.2.8.3.2.2 Complete and sign an appropriate safety check list showing the main safety precautions to be taken before and during such handling operations;

1.2.8.3.2.3 Agree in writing the action to be taken and the signals to be used in the event of an emergency during handling operations; and

1.2.8.3.2.4 Ensure appropriate safety equipment and clothing are used.

1.2.8.3.3 The port operator should ensure that master flow and drain valves, and other valves that would permit direct outward flow of a bulk liquid storage tanks contents to the surface are securely locked in the closed position when in a non-operating or non-standby status.

1.2.8.3.4 The port operator should ensure that starter controls on all bulk liquid transfer pumps are locked in the "off position, or located at a site accessible only to authorized personnel.

1.2.8.3.5 The port operator should ensure that loading/unloading connections of pipelines, loading arms, or transfer hoses are securely capped or blank-flanged when not in service or in standby service.

1.2.8.4 Pumping

The master of a ship and port operator within their respective areas of responsibility should ensure that:
- Frequent checks are made to ensure that the agreed back-pressures and loading or unloading rates are not exceeded;
- All reasonable care is taken to prevent all relevant pipelines, loading arms, flexible pipes and associated equipment on board the ship and ashore from developing a leak, and that they are kept under adequate supervision during the handling of liquid bulk dangerous cargoes;
- Effective communication between the ship and the shore installations is maintained throughout the handling operations;
- The safety check list is available for inspection throughout the handling operations;

- Simultaneous working of ships' stores with the handling of dangerous cargoes, gas-freeing, purging or tank cleaning is only carried out when permitted by the port authority and all practicable precautions are taken to avoid damage to connecting loading arms, flexible pipes or associated equipment or any other hazards;
- During the handling of liquid bulk dangerous cargoes, arrangements are made for the gauging of ships' tanks to ensure that no tank is overfilled;
- Responsible persons are present during operations on board ship and ashore;
- Appropriate safety equipment and clothing are used.

1.2.8.5 Completion of operation

1.2.8.5.1 The master of a ship and port operator within their respective areas of responsibility should ensure that after the completion of every transfer of liquid bulk dangerous cargoes the valves of the discharging and receiving cargo spaces and tanks are closed and any residual pressure in the relevant pipelines, loading arms and flexible pipes is released, unless the same valves are required to be open for normal plant or ship operations. They should also ensure that:

1.2.8.5.1.1 Prior to the disconnection of the shore pipelines from the ship, the loading arms, flexible pipes and piping are drained of liquids, the pressure relieved and the piping vented;

1.2.8.5.1.2 All safety precautions are taken, including the blanking off of the ship manifold connection and the shore pipeline; and

1.2.8.5.1.3 Appropriate safety equipment and clothing are used.

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.

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 Coastal Facility Operator

2.2.1 Ensure appropriate, secured, safely land and connection.
2.2.2 Ensure proper and safe entrance-exit system between the ship and shore.
2.2.3 Provide training for personnel working in loading, unloading and handling operations of the dangerous goods.
2.2.4 Ensure proper and safe transport, handling, separation, stowing, temporary stock and inspection of the dangerous goods in the operation field by qualified, trained personnel who has taken the job security measures.
2.2.5 Request all necessary documents relating to dangerous goods from the relevant person of the cargo and ensure its availability with the cargo.
2.2.6 Keep an updated list of all dangerous goods in the business field.
2.2.7 Provide training for all personnel on the risk of handled dangerous goods, safety measures, safe operation, emergency measures, safety and so on and keep training records.
2.2.8 Check the documents 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.
2.2.9 Provide necessary safety measures for improper, unsafe or risk-posing hazardous substances and notify the port authority.
2.2.10 Provide emergency arrangements and ensure that all persons informed about these issues.
2.2.11 Inform the port authority on the dangerous goods accidents occurring in the area of responsibility.

2.2.12 Provide necessary support and cooperation for the inspections made by the authorities.
2.2.13 Execute the activities related to hazardous substances in the docks, wharves, warehouses which are established for this purpose.
2.2.14 Provide proper installation and equipping for the docks and wharves separated for ships and marine vessels which load and unload petroleum and petroleum products.
2.2.15 Provide transportation of the dangerous goods, which are not proper for temporary stay and not allowed, out of the coastal facility as soon as possible without waiting.
2.2.16 Not allow the ships and vessels carrying hazardous goods to edge in with the dock and pier without permission from the port authority.
2.2.17 Provide a storage area proper to separation and stowage requirements and take necessary fire, environmental and other safety measures. Load and unload the dangerous good to ships and vessels, to take necessary actions against heat and other hazard especially in warmer seasons by relevant person. Keep combustible materials away from sparks and avoid usage of sparkling tools and equipment in the dangerous goods handling area.
2.2.18 Prepare emergency evacuation plan for the evacuation of the ships and boats from the coastal facilities in case of emergency.

2.3. Responsibilities of The Ship's Captain

2.3.1 Ensure that the ship, equipment and devices are in good condition for dangerous good transport.
2.3.2 Demand all necessary documents, information and certification relating to dangerous goods and ensure their availability with the goods.
2.3.3 Ensure that the safety measures related to loading, stowing, separating, handling, transport and unloading of the dangerous goods in his ship and take necessary inspection and controls.
2.3.4 Check the compliance of identification, classification, certification, packaging, marking, declaration, loading and transport of the approved and proper package, container and cargo unit in a safety means.
2.3.5 Ensure that the crew is trained and informed on the risks, safety precautions, safe operation, emergency measures and similar issues of the loaded and unloaded dangerous goods.
2.3.6 Ensure that the persons, who are qualified and have necessary training on the loading, transport, unloading and handling of the dangerous goods, work by taking job safety measures.
2.3.7 Not crossing the boards assigned to himself, not anchoring, not edging with the pier and docking without the consent of the oirt authority.
2.3.8 Apply all rules and measures during sailing, maneuvering, mooring, berthing and leaving for the safe transport of dangerous goods.
2.3.9 Ensure safe entry and exit between the ship and the dock.
2.3.10 Inform the crew on the applications, security procedures, emergency measures and intervention methods related to dangerous goods in the ship.
2.3.11 Possess the updated list of the dangerous goods in the ship and declare them to the authorities.
2.3.12 Take the necessary safety measures for illegitimate, improper, unsafe, risk-posing for ship, persons or environment and report the case to the port authority.
2.3.13 Report the dangerous goods accident in the ship to the port authority.
2.3.14 Provide the necessary support and cooperation for controls made by the authorities.

2.4. Responsibilities of The Dangerous Goods Safety Consultant

2.4.1 Follow the compliance with the requirement to the transport of the dangerous goods.
2.4.2 Provide recommendations with regard to the transportation of hazardous materials to the coastal facility.
2.4.3 Prepare an annual report on the dangerous goods transportation activities of the facility operator to the coastal facility. (Annual reports are kept for years and submitted to the authorities upon request.)
2.4.4 Check the applications and methods described below;
2.4.4.1 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.
2.4.4.2 Loading / unloading evacuation procedure related to handled and temporary dangerous goods,
2.4.4.3 Check that if the coastal facility considers the special requirements relating to dangerous goods while purchasing means of conveyance regarding to the handled dangerous goods.,
2.4.4.4 Control methods of transport equipment used in loading and unloading of hazardous substances,
2.4.4.5 Including the amendments to the legislation, to check that whether the coastal facility personnel has necessary training and whether the records of this training is available,
2.4.4.6 Convenience of the emergency methods to be applied in case of occurrence of an accident or incident that may effect the safety during the transport, loading or unloading of the dangerous goods.,
2.4.4.7 Convenience of the reports prepared on the serious accidents, incidents or serious infringements occurring during the transport, loading and unloading of the dangerous substances,
2.4.4.8 Determine the necessary precautions for the possibility of the re-occurrence of the accidents, incidents or serious violations and evaluation of the practices,
2.4.4.9 Check what extent the requirements of the transport of the dangerous good are considered among the selection of the subcontractor,
2.4.4.10 Determine whether the personnel has detailed knowledge on operational procedures and instructions for the transportation, handling, storage and shipment / discharge of hazardous substances,
2.4.4.11 Convenience of the measures taken for the transportation, handling, storage and shipment / discharge of hazardous substances
2.4.4.12 Procedures on the identification of all necessary documents, information and certifications relating to hazardous materials.
2.4.4.13 Procedures on berthing, loading / unloading, sheltering or anchoring of ships carrying dangerous substances to the coastal facility day and night safely.
2.4.4.14 Procedures on the additional measures to be taken for loading and unloading of the dangerous goods according to the seasonal conditions.
2.4.4.15 Procedures on fumigation, gas metering and degasification operations. Procedures on keeping records and statistics of hazardous materials,
2.4.4.16 Accuracy of the matters related to the ability and capacity of the coastal facility for respond to emergencies,
2.4.4.17 Convenience of the regulations for early intervention for accidents involving hazardous substances,
2.4.4.18 Procedures on handling and disposal of damaged dangerous goods and wastes contaminated

with dangerous goods,
2.4.4.19 Information for the personal protective clothing and procedures among their use.

2.5. Responsibilities Of 3rd Party, Cargo/Ship Broker Etc. Operating In The Coastal Facility
2.5.1 Ensure that their personnel participating in the coastal 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 coastal facility,
2.5.4 Handling, transport and storage of hazardous substances in the coastal 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 coastal facility and Port Authority.

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

3.1. Berthing

3.1.1 The port operator should ensure that:

- Adequate and safe mooring facilities are provided; and
- Adequate safe access is provided between the ship and the shore.

3.2. Supervision

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.

3.3. Identification, Packing, Marking, Labelling Or Placarding And Certification

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 EVIDG 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.

3.5. Emergency Procedures

3.5.1 The port operator should ensure that appropriate emergency arrangements are made and brought to the attention of all concerned. These arrangements should include: the provision of appropriate emergency alarm operating points;

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

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

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

3.5.1.4 Co-ordinated arrangements for the release of a ship in the case of an emergency; and arrangements to ensure adequate access/egress at all times.

3.5.2 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.

3.6. Emergency Information

3.6.1 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, when 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.

3.6.2 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.

3.6.3 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.

3.6.4 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.

3.6.5 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.

3.6.6 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.

3.7. Fire Precautions

3.7.1 The port operator should ensure that:

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

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

3.7.1.3 The port is fitted with an international ship/shore connection that complies with the requirements of regulation II/2/10.2.1.7 to supply water to the ship's fire-fighting equipment for ships all areas used for

3.7.1.4 The handling of dangerous cargoes are kept clean and tidy;

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

3.7.1.6 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.

3.7.2 The Port Operator Should Ensure That:

3.7.2.1 Places where smoking is prohibited are designated; and

3.7.2.2 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.

3.7.3 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.

3.7.4 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.

3.7.5 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.

3.8. Fire Fighting

3.8.1 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.

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

3.9. Environmental Precautions

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

3.9.2 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.

3.9.3 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.

3.10. Pollution Combating

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

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

3.11. Reporting Of Incidents

3.11.1 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.

3.11.2 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.

3.11.3 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.

3.12. Inspections

3.12.1 The port operator, where appropriate, should:

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

3.12.1.2 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);
3.12.1.3 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 EVIDG Code or by a certification or approval system of an appropriate authority; and
3.12.1.4 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.

3.12.2 The port operator should make such checks regularly to ensure implementation of the safety precautions in the port area and the safety of transport.
3.12.3 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.
3.12.4 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.

3.13. Hot Work And Other Repair Or Maintenance Work

3.13.1 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.
3.13.2 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.

3.14. Entry Into Confined Or Enclosed Spaces

3.14.1 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 vapour or oxygen depleting cargoes, unless the space is free of dangerous vapour 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.
3.14.2 Where it is necessary for operational purposes to enter a space which cannot be freed of dangerous vapour within a reasonable time and which, therefore, can not be certified, or it is unlikely that the space will remain free of dangerous vapour, 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.

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

3.15. Contaminated Wastes

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.

3.16. Alcohol And Drug Abuse

3.16.1 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. Any such persons should always be kept clear of the immediate areas where

3.16.2 dangerous cargoes are being transported or handled.

3.17. Weather Conditions

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.

3.18. Lighting

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.

3.19. Handling Equipment

3.19.1 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.

3.19.2 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.

3.20. Protective Equipment

3.20.1 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.

3.20.2 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.

3.21. Signals

3.21.1 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.

3.21.2 The specified dangerous cargoes should include:

- bulk liquids with a flashpoint below 60°C closed cup;
- bulk flammable and/or toxic gases; and
- explosives (other than division 1.4S), liquid desensitized explosives assigned to class 3 and solid desensitized explosives assigned to class 4.1; to the degree specified by the regulatory authority.

3.21.3 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.

3.21.4 The following four scenarios should be considered:

- the ship is moored or at anchor by day;
- the ship is moored or at anchor at night;
- the ship is under way by day; or
- the ship is under way at night.

3.21.5 When practicable, a dedicated anchorage or port should be provided for vessels carryingdangerous cargoes listed in 7.1.18.2 requiring the exhibition of such signals. Special restrictions may be applied to:

- access to the vessels;
- radio and radar transmissions;
- transiting the anchorage; and
- passing of ships moored or anchored.

3.21.6 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:

- by day flag "B" of the International Code of Signals; and
- by night an all-round fixed red light.

3.22. Communications

3.22.1 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 EVIO Assembly resolution A.609(15) and the requirements of the regulatory authority.

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 asfollows:

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

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 orexplosions

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
Class 2: Gases
Class 3: Flammable Liquids
Class 4: Flammable solids; substances liable to spontaneous combustion; substances which, in contact with water, emit flammable gases
Class 5: Oxidizing substances and organic peroxides
Class 6: Toxic and infectious substances
Class 7: Radioactive material
Class 8: Corrosive substances
Class 9: Miscellaneous dangerous substances and articles

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

Class 1		
	**1**	Explosive substances and articles used to produce explosions or pyrotechnic effects
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

Class 2		
	**2.1**	Flammable gas
	**2.2**	Non-Flammable, compressed gas
	**2.3**	Toxic or poisonous gas

Class		
	**3**	Flammable

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)

Class 6		
	**6.1**	Toxic substances
	**6.2**	Infectious substances

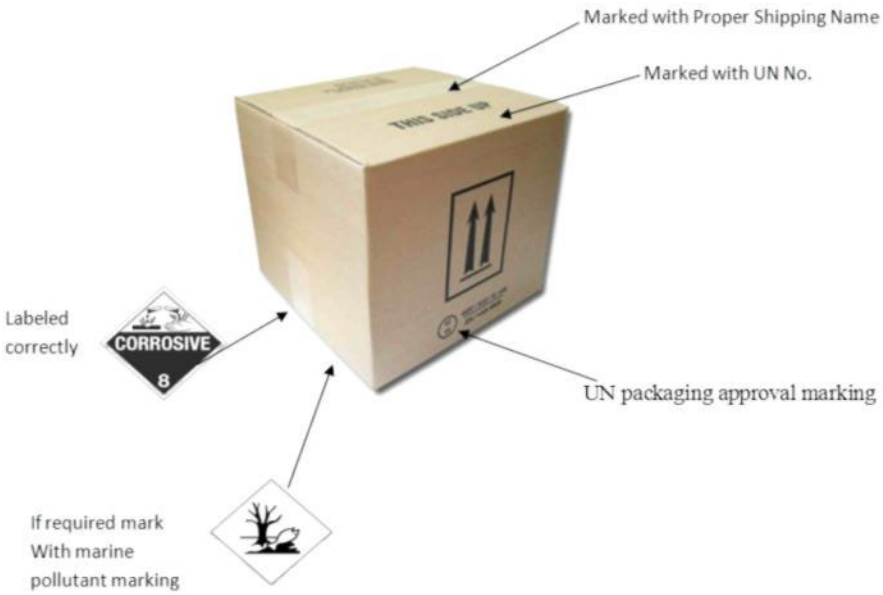
Class 7		
	**I**	Category I – White (symbol 7A)
	**II**	Category II – Yellow (symbol 7B)
	**III**	Category III – Yellow (symbol 7C)
	**Fissile**	Criticality safety index label (symbol 7E)

Class 8		
	-	Corrosive

Class 9		
	-	Miscellaneous dangerous compounds

4.2. Dangerous Goods Packing and Packages

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



4.3. Dangerous Goods Marking, Labels, Placards

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 required. 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 least 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 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)

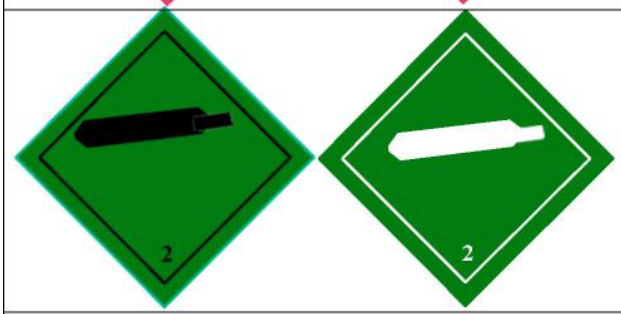
- Rail wagons must be placarded on at least both sides
- Freight containers, semi-trailers and portable tanks must be placarded on all four sides
- Road vehicles must display appropriate placards on both sides as well as therear

SHAPES AND COLORS OF LABELS AND PLACARDS

Class 1 -Explosives

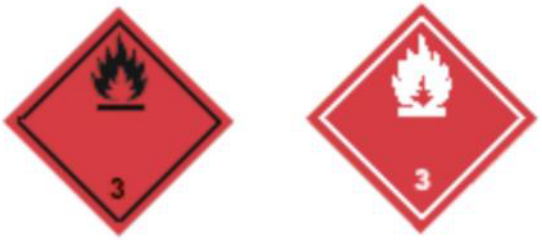
	**Division 1.1 / 1.2 / 1.3** **Symbol** – explosion in black color **Background** – orange color **Text** – Explosive (optional) * * Location of division and/or Compatibility Group * Location of Compatibility Group or text **Number 1** – in the bottom corner
	**Division 1.4 / 1.5 / 1.6** **Background** – orange color **Subclass numbers** – in black color (approximately 30 mm 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

	**Division 4.1 Flammable Solids** **Symbol** – flame in black color **Background** – white with seven red vertical stripes **Text** – Flammable Solid **Number 4** – In the bottom corner
	**Division 4.2 Substances liable to spontaneous combustion** **Symbol** – flame in black color or white color **Background** – blue color **Text** – Spontaneous combustion substances (optional) **Number 4** – in the bottom corner

Class 3 - Flammable Liquids

	**Symbol** – flame in black and white color **Background** – red color **Text** – Flammable Liquid (optional) **Number 3** – in the bottom corner

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

	**Division 4.3 Substances which, in contact with water, emit flammable gases** **Symbol** – flame in black or white color **Background** – blue color **Text** – Substances which, in contact with water, emit flammable gases (optional) **Number 4** – in the bottom

Class 5 - Oxidizing Substances or Organic Peroxides

	**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
	**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

Class 6 - Toxic Substances or Infectious Substances

	**Division 6.1 Toxic Substances** **Symbol –** black skull and crossbones **Background –** white color **Text –** Toxic (optional) **Number 6 –** in the bottom corner
	**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

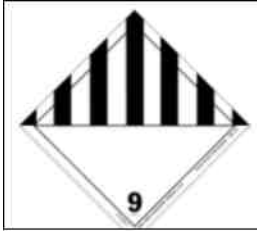
Class 7 - Radioactive Materials

	**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
	**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
	**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

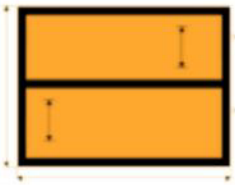
Class 8 - Corrosive Substances

	**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 corner

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

	**Symbol** – seven vertical bars in black in the upper half **Background** – in white color **Number 9** – In the bottom corner

Other labels

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

Placards for Marine Pollutants

	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 goods. 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.

4.4. Packaging and Approval Marking, 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

4.4.1 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:

1A1/Y1.4/150/98/NL/VL824

4.5. Segregation and Separation

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

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

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 EVIDG 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 N° 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.

4.5.3 Stowage Categories

Category	A	B	C	D	E
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

Regarding Class 1 (Explosives) the code establishes the following 5 categories for stowage onboard:

Category	**Cargo Ships**	**Passenger Ships**
01	On deck or below deck	On deck or below deck
02	On deck or below deck	On deck in closed transport units or under deck in closed transport units
03	On deck or below deck	On deck only in closed cargo transport units
04	On deck or below deck	PROHIBITED
05	On deck in closed cargo transport units or under deck	On deck in close cargo transport units or under deck

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.

4.6. Segregation Categories

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:

CLASS		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
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.

4.6.1 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.

4.6.2 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.

Classes		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
Flammable solids, self-reactive substances and desensitized explosives	4.1	A	0	0	0	0	A	0	A	S	0	A	0
Spontaneously combustible substances	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
Organic peroxides	5.2	S	A	S	S	S	S	S	S	0	A	S	0
Toxic substances (liquids and solids)	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 (3meters)
"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 donein a special area, away from to 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.

5. HANDBOOK OF DANGEROUS GOODS

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;

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

6. PROCEDURES FOR THE OPERATION

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 *theport 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 Direct, in an emergency, a *ship* having any *dangerous cargoes* on board to be moved within the *port area,* or to be removed from the port area having due regard to the safety of the *ship* and its crew; and

6.1.3 Attach such requirements to any such directions as are appropriate to local circumstances and the quantity and nature of the *dangerous cargoes* involved.

6.1.4 *The port operator* should ensure that:

- Adequate and safe mooring facilities are provided; and
- 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 As an example, no 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 vapours 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 provisions of 7.2.15 and 7.3.18 with respect to the handling of dangerous cargoes in adverse weather conditions need careful attention, particularly in respect of wet conditions.

6.3. Hot Work

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;

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 adj acent 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 adj acent areas where a hazard resulting from the transfer of heat may be created.
6.3.7 Reference should also be made to the appropriate publications listed in the bibliography (see appendix 2) where 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.

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
- 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)

7.1.2 The Operations Department shall organize all records completely and keep them available to present upon request. Hazardous cargo records are limited to authorized personnel.

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.

- 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;

- 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

7.2.5 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).

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

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.

7.6. Information on the Quality Management System

We have ISO 9001 certificate from TÜV NORD CERT GmbH Certification center with certificate registration number 44 100 07 3535

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; inothers, sheltering in-place may be the best course. Sometimes, the set woactionS may be used in combination. In any emergency, officials need to quickly give the public instructions. The publicwill need continuing information andinstructions while being evacuated or sheltered in-place.

8.1.2 Proper evaluation of the factors listed belowwill determinethe effectiveness of evacuation or in-place protection (shelter in-place). The importance of these factors can vary with emergency conditions. In specific emergencies, other factors may need to be identified and considered aswell. This list indicates what kind of information maybe needed to make theinitial decision.

8.1.2.1 The Dangerous Goods

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

8.1.2.2 The Population Threatened

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

8.1.2.3 Weather Conditions

- Effect on vapor and cl oud movement
- Potential for change
- 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 shouldnot be allowed to enter the isolation zone.

8.1.3.3 This"isolation"taskisdonefirsttoestablish control overthe area of operations. This is the first step for any protective actions that may follow.

8.1.4 Evacute

8.1.4.1 Evacuate means to move all people firoma threatened area to a saferplace. To perform an evacuation, there mustbe enough time for people to be warned, to get ready, and to leave an area. If thereis enough time, evacuationisthebest protective action.

8.1.4.2 Begin evacuatingpeople nearby and those outdoors in direct view of the scene. When additional help arrives, expand me are atobe evacimted down wind and cross wind to at least the

extent recommended in this guide book.Even afterpeople move to the distances recommended, they may notbe completely safe from harm.

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

8.1.5 Shelter hi-Place

8.1.5.1 Shelter In-Place means people should seek shelter inside a building and remain inside until the danger passes. Shelteringin-place isused whenevacuatingthe public would cause greater risk than staying where they are, orwhenan evacuation cannot be performed. Direct the 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 the vapors are flammable;
- If it will take along time for the gas to clear the area; or
- If buildings cannot be closed tightly.
- Vehicles can offer some protection for ashort period if the windows areclosed and the ventilating systems are shut off. Vehicles are not a seffective as buildings for in-place protection.

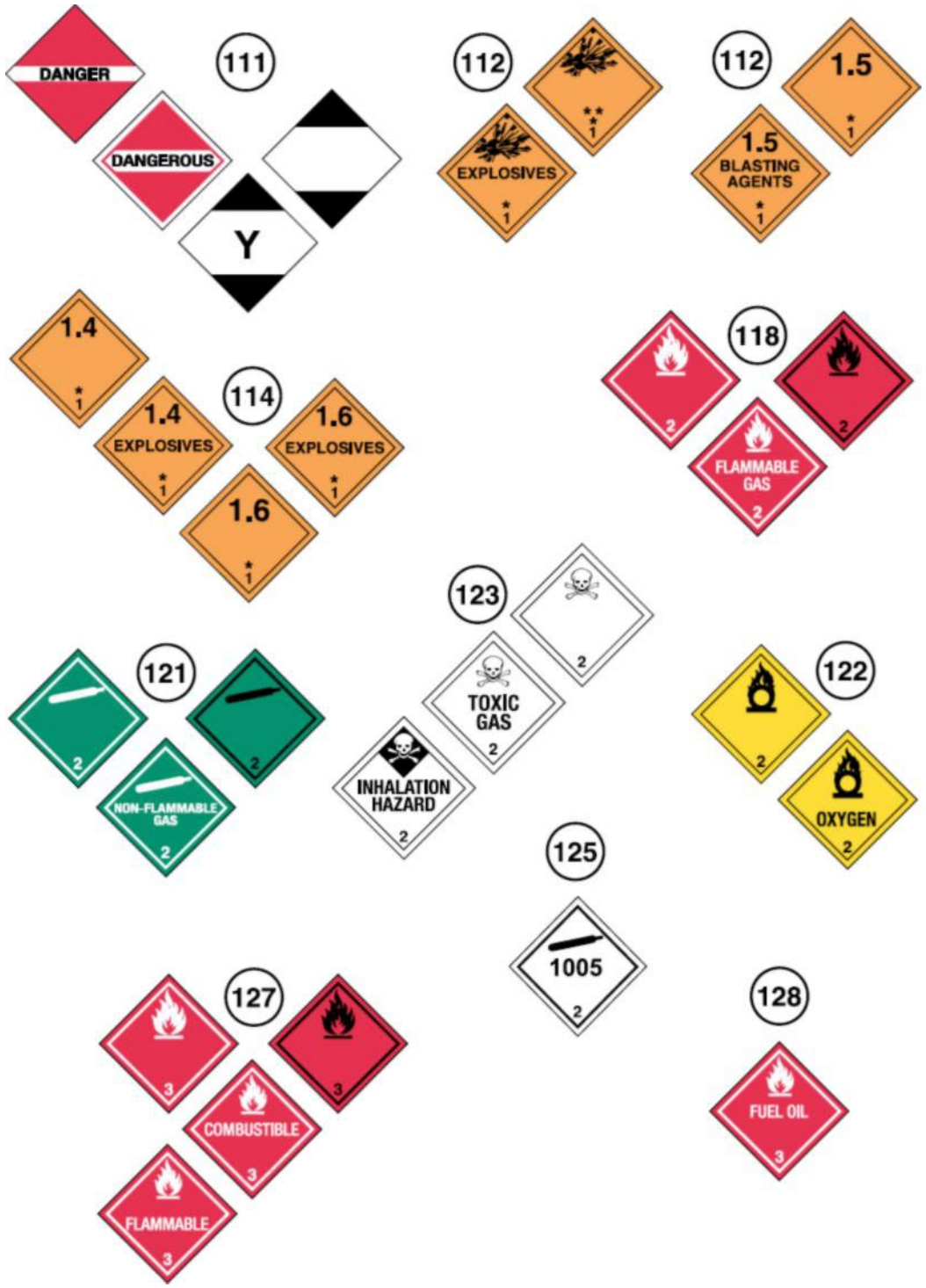
8.1.5.3 It is vital to maintain communications with competent persons in side the building so that they are advised about changing conditions. Persons protected-in-place should be warned to stay far from windows because of the danger from glass and projected metal fragments in a fire and/or explosion.

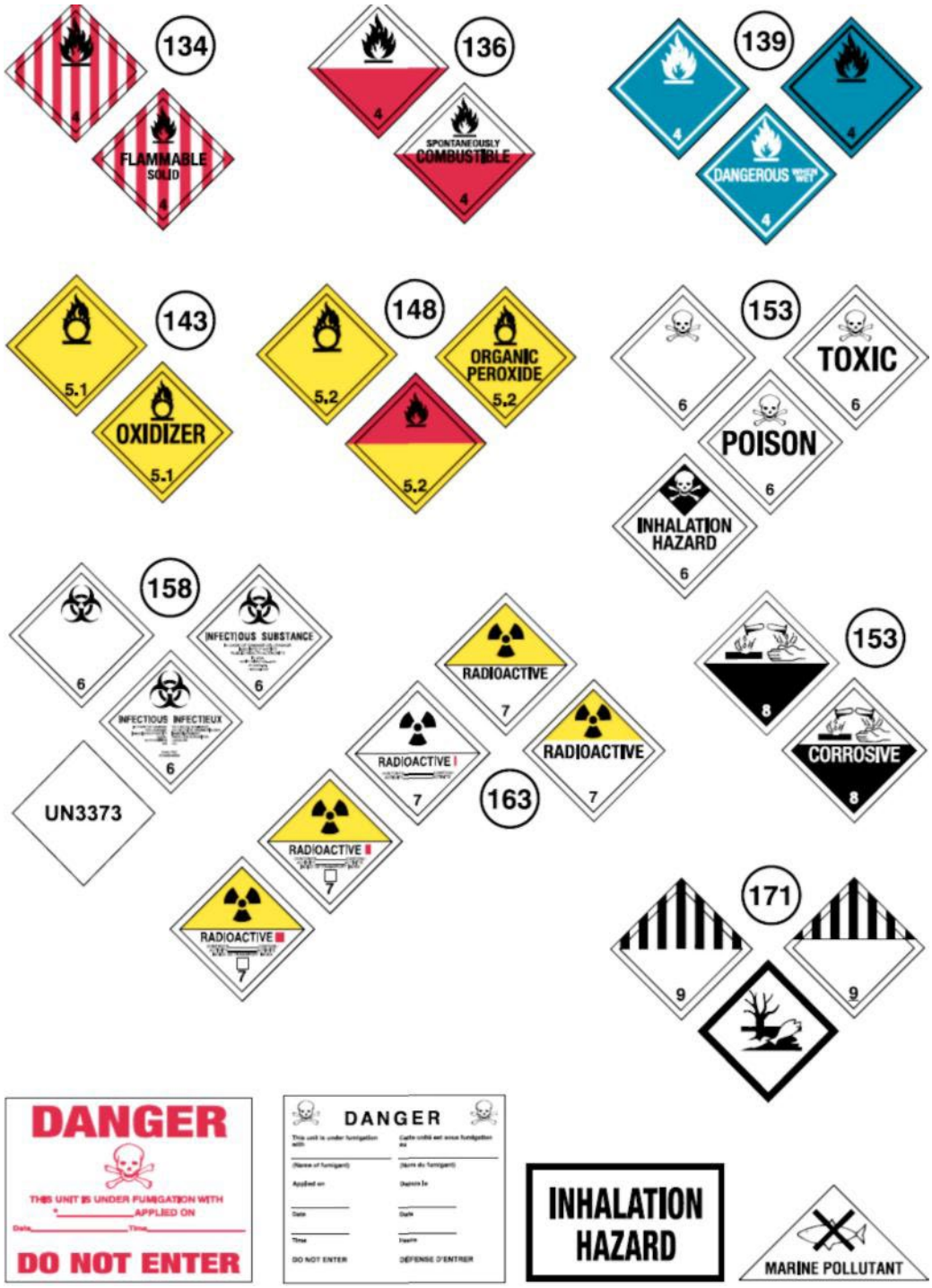
8.1.5.4 Every dangerous goods incident is different. Each will have special problems and concerns. Action to protect the public mustbe selected carefully. These pages can help with initial decisions on how to protect the public. Officials must continue to gather information and monitor the situation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

8.1.6 Emergency Response Guide

The following table below according to the guide number of intervention methods.

USE THISTABLE ONLYIFMATERIALSCANNOT BE SPECIFICALLY IDENTIFIED BY




134
4
FLAMMABLE SOLID
4
136
4
SPONTANEOUSLY COMBUSTIBLE
4
139
4
4
DANGEROUS WHEN WET
4
143
5.1
OXIDIZER
5.1
148
5.2
ORGANIC PEROXIDE
5.2
5.2
153
6
TOXIC
6
POISON
6
INHALATION HAZARD
6
158
6
INFECTIOUS SUBSTANCE
6
INFECTIOUS INFECTIEUX
6
UN3373
RADIOACTIVE
7
RADIOACTIVE
7
RADIOACTIVE
7
163
RADIOACTIVE
7
RADIOACTIVE
7
153
8
CORROSIVE
8
171
9
9
DANGER
THIS UNIT IS UNDER FUMIGATION WITH
APPLIED ON
DO NOT ENTER
DANGER
DO NOT ENTER
DEFENSE D'ENTRER
INHALATION HAZARD
MARINE POLLUTANT

8.2. Information On Resource, Capability And Capacity Of The Coastal Facilities Regarding To Respond To Emergencies

8.2.1 The facility has an approved fire plan. Firefighting teams have been established for each shift. Training, drills and exercises are carried out within the scope of various scenarios at planned and unplanned times and reports and records are filed. The firefighting equipment foreseen in the approved plan is fully available, maintenance, checks and tests are carried out.
8.2.2 The facility has an approved Environmental and Marine Pollution Control Plan. Pollution Control Teams have been established for each shift. Training and drills are carried out within the scope of a planned scenario twice a year and reports and records are filed. Environmental and Marine Pollution related equipment is stored in the facility and counted and checked. The facility also has a protocol for materials stored in the region to receive support in cases of inadequacy.
8.2.3 Intervention teams will be assigned in line with this guide and in accordance with the IMDG CODE against hazardous material spills.

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 arrives	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

1.	Local date and time of emergency
2.	Place of accident
3.	Emergency Type (eg, Tire, Tuel Spill, Personal Injury) and Occurrence of the Accident (eg.: What Happened?)
4.	Damage Control Measurement. What has been done to bring the emergency under control?
5.	Deceased / Injured / Loss - The number of the compnay's employees in the accident
6.	Deceased / Injured / Missing - The number of the contractor's employees /Drivers
7.	Damage of the terminal or equipment owned by the company
8.	Loss of product owned by the company / amount of product recovered
9.	Damage of the contractor's terminal or equipment
10.	Other damages suffered by the contractor
11.	Impact on company operations
12.	Authorities notified upon the effect of the emergency
13.	The reaction received or expected to be received
14.	Quality control of the equipment and / or product
15.	The review undertaken by the Centre
16.	The results of the corrective actions implemented regarding the cause of the Emergency

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

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

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

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

8.6. Coordination, Support And Cooperation Method With Authorities.

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.

8.7. 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 Seperation 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.

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.

- The adequacy of the Trailers
- The ships's ability to depart with its own power
- The availability of a safe place that a ship can or will be taken in an emergency case.
- Fire-fighting competence
- The proximity of other vessels
- Fire Ropes

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 If all the preparations above examined and deemed appropriate, the ship will be immediately departed
8.7.2.1 Emergency separation will be provided by the fulfillment of the following processes in order.
8.7.2.2 A close coordination and cooperation between Terminal, Ship and Port Authorities is required for each phase.
8.7.2.3 Emergency Separation Process is as below. Activating an alarm Inform about the emergency by VHFphone. 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
- 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

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.
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; These waste are empty barrels. If occurred, should be left to the contaminated package area in the dump site and Environmental Consulting Firm and Environmental

Management System Supervisor contact with contracted and licensed company to send those contaminated packages through filling up the National Waste Handling Form within the time specified in the laws and regulation. Relevant documents of National Waste Handling Form and other documents are stored in environment folder.

8.8.4 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;

- Have to be indicated within annual training plans.
- May be planned as local or general responses,
- Safety, Spillage, etc. may be combined in practice scenarios,
- Practices can be performed with or without notices.
- Practices are based upon different emergency scenarios.
- A practice may be actually performed as it can be negotiated as a desk work or a seminary, Each practice is prepared with scenarios of different hours, days, seasons and incidents.

8.10. Information On Fire Protection Systems

In case of a fire regarding hazardous cargos, IMDG CODE SUPP fire sheets shall be used.

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 addition to scheduled maintenance are specified below.
8.11.2.2 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.
8.11.2.3 Fire-protection water pumps must be operated and recorded at least 1 hour a week.
8.11.2.4 -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 b e filled up with water until they overflow and when the water stops at the plug level, the plug must be tightened properly.
8.11.2.5 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.
8.11.2.6 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.
8.11.2.7 Monometers must be checked regularly and one or more pumps must be stopped in case of excess pressure increases.
8.11.2.8 Delivery pipes of pumps must be equipped with valves initially and check valves thereon.
8.11.2.9 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.
8.11.2.10 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.
8.11.2.11 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.
8.11.2.12 For pumps driven by diesel engine, starting the engine must be carried out in line with the instructions.
8.11.2.13 In condition that a deficiency or malfunction is detected as a result of control, it is fixed by the responsibles.

8.11.3 Sprinkler System

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

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 4^{th} year.

8.11.6 Protection against freezing.

8.11.6.1 Protection of Generators

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.

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.

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

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

8.13. Other Risk Control Equipment

There is no risk control equipment other than those mentioned above.

9. SAFETY AND HEALTH AT WORK MEASURES

9.1. Occupational Health And Safety Measures

9.1.1 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.

9.1.2 Risk assessment

9.1.2.1 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.

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

- Danger and harms of chemical substance in terms of health and safety.
- Turkish material safety verse form (SDS)to be provided from sellers, manufacturers or importers.
- Duration, type and level of contagion.
- Quantity, conditions of usage and frequency of usage of chemical substance.
- Vocational exposition limit values and biological limit values given at annexes of this regulation
- Effect of preventive measures to be taken or taken.
- If available, results of last health surveillance.
- Each of these substances and their interactions with each other at works that was worked in with more than one chemical substances.

9.1.2.3 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.

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

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

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

- Proper regulation and organization of work are done at Harbor Structure.
- Studies with dangerous chemical substances are made with minimum number of employees.
- Substance quantity and exposition period employees will be exposed is allowed to be at minimum level.
- Chemical substance quantity to be used at Harbor Structure is kept at minimum level.
- Work place building and extensions are always kept clean and neat.
- Proper and sufficient conditions are provided for employees' personnel cleaning.
- Necessary regulations are made to store, transport, use and process dangerous chemical substances, waste and residuals properly at Harbor Structure.
- 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:
- 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.

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

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

9.1.2.7 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.

9.1.2.8 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.

9.1.2.9 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:

- 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,
- 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,
- 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.
- 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.
- Arrangements to reduce effect of explosion pressure are made.
- Facility, machine and equipment are allowed to be always under control.
- Minimum safety distances are complied with placing storage tanks those have liquid oxygen, liquid nitrogen and liquid argon at work places.

9.1.3 Emergencies

9.1.3.1 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:

9.1.3.1.1 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 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.

9.1.3.1.2 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;

9.1.3.1.3 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,

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

9.1.4 Workers' education and informing them

9.1.4.1 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;

- Information gained as a result of the risk evaluation.
- 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.
- Necessary precautions and things to do so that the worker's do not danger themselves or the other workers.
- Information on the Turkish material safety data sheets supplied from the manufacturer for the dangerous chemical substances.
- Information on labelling/locking the parts, covers, pumping system and suchlike instalment where the dangerous chemical substances are according to the regulations

9.1.4.2 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

9.2.1 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

Usage area: 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

Usage area: 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.

- 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.

9.3. Closed space entry permit measures and procedures

After completing the Open / Closed Area Work Permit Form (Yrmhbs FRM67) and obtaining the necessary permissions, it is allowed to start working.

HABAŞ

AÇIK / KAPALI ALAN ÇALIŞMA İZİN FORMU

Döküman No	Yrmhbs FRM67
Yayım Tarihi	20.7.2016
Revizyon	
Revizyon No	0
Sayfa No	1

☐ SICAK İŞ İZNİ ☐ SOĞUK İŞ İZNİ ☐ KAZI İZNİ ☐ ELEKTRİKLİ EKİPMAN ☐ YÜKSEKTE ÇALIŞMA

İzin Verilen Saha: Kapalı alan Çalışma İzni

Sahada Çalışılacak Yer / Ekipman: ...

Kullanılacak Alet / Ekipman: .....
İşin Tarifi:
İşin Başlama Tarihi : .... Saat İşin Bitiş Tarihi : Saat .....

TÜM ÇALIŞANLAR BARET, EMNİYET AYAKKABISI VE İŞ ELBİSESİ GİYECEKLERDİR.

	ÖN KONTROLLER	EVET	GEREKSİZ
1	Elektrik bağlantıları emniyetli bir şekilde kapatılıp etiketlendi mi?		
2	Topraklama gerekli mi (Gerekli ise açıklamalarda belirtiniz)?		
3	Akaryakıt veya her türlü tehlikeli maddenin gelişine engel olacak tedbirler alındı mı?		
4	Patlayıcı - parlayıcı maddeler uzaklaştırıldı mı ve/veya emniyete alındı mı?		
5	Ekipman/hat mekanik olarak sistemden ayrıldı mı?		
6	Ekipman / hat boşaltılıp (dreyn), havalandırıldı mı?		
7	Ekipman / hat temizlendi mi (su, buhar veya azot ile)?		
8	Kullanılacak ekipman (kaynak makinesi oksi tüp vb.) güvenli mi, bakımı yapılmış mı?		
9	Gerekli gaz ölçümleri yapıldı mı ? Saha güvenli mi ?		
10	Aydınlatma yeterli mi (exproof olması gerekli ise açıklamalarda belirtiniz)?		

KİŞİSEL KORUYUCULAR
☐ TOZ MASKESİ
☐ EMNİYET KEMERİ
☐ KULAKLIK
☐ KAYNAK MASKESİ
☐ İŞ ELDİVENİ
☐ EMNİYET GÖZLÜĞÜ
☐ 3 KATLI MASKE
☐ BARET.....
ANTİSTATİK İŞ ELBİSESİ
☐ İŞ AYAKKABISI.....

	İZİN ŞARTLARI (Gözlemlenmelidir)	GEREKLİ	GEREKSİZ
1	Yangın söndürücü bulunmalı (Tipi .....).		
2	Baret, iş ayakkabısı, iş eldiveni kullanılmalı		
3	Yüksek bölgelere çıkmadan emniyet kemeri takılmalı		
4	Nezaretçi hazır bulunmalı		
5	İş sahası / ekipman ıslak tutulmalı.		
6	Yangın battaniyeleri ve/veya kum hazır tutulmalı.		
7	Gemi yükleme - boşaltması olmamalı.		
8	Tankta oksijenmetre ile ölçüm yapılmalı (Alarm vermiyorsa çalışma yapılabilir)		
9	Techizatda eksplosimetre ile yanıcı gaz ölçümü yapılmalı (Alarm vermiyorsa çalışma yapılabilir)		
10			

ALINMASI GEREKEN DİĞER ÖNLEMLER VE AÇIKLAMALAR:

Boğucu ve yanıcı gaz ölçümleri yapılmadan işe başlanmamalıdır.

İZİN ONAYLARI
İZİN YETKİLİSİ
İmza:
İŞİ YAPAN :
İmza:
İŞLETME MD./ TESİSAT MD.
İmza:

İŞ BİTİMİ ONAYLARI	
İŞ TAMAMLANMIŞTIR ☐	**İŞ TAMAMLANMAMIŞTIR** ☐
İZİN YETKİLİSİ	***İŞİ YAPAN***
İmza:	
İŞLETME MD./ TESİS MD.	
İmza:	

10. OTHER POINT

10.1. Validity Of The Hazardous Substances Compliance Certificate

Valid until 15.10.2024.

10.2. 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.)

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

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

10.2.1.2 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;

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

10.2.1.4 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. 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)

10.3.1 Arrival By Water

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

- Name of the consignor (shipper) and date of delivery to the port area, normally not less that 24 hours before arrival;
- 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;
- For bulk dangerous cargoes: the product name and any other information required by the relevant EVIO code; and
- 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 Departure By Water

10.3.2.1 Packaged dangerous cargoes:

- The name of the ship and ship's IMO number, agent and estimated time of departure (ETD), as required by the regulatory authorities;
- A list showing 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, 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; and
- The stowage location of the dangerous cargoes on board.

10.3.2.2 Bulk dangerous cargoes (liquid or solid):
- The name of the ship and ship's IMO number, agent and estimated time of departure (ETD), as required by the regulatory authorities;
- A list showing the product names of the bulk dangerous cargoes and any other information required by the relevant IMO code;
- Whether a valid International Certificate of Fitness for the Carriage of Dangerous Chemicals in Bulk, or a Certificate of Fitness for the Carriage of Dangerous Chemicals in Bulk, whichever is appropriate, and/or an International Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances in Bulk (NLS Certificate) and/or, an International Oil Pollution Prevention Certificate, as appropriate, is held by the ship for the cargo; and
- The stowage or location of the dangerous cargoes on board.

10.4. Regulatory Authorities

10.4.1 Training

The regulatory authority should establish minimum requirements for training and, where appropriate, qualifications for each person involved, directly or indirectly, in the transport or handling of dangerous cargoes.

Regulatory authorities involved in the development or enforcement of legal requirements relating to the supervision of transport or handling of dangerous cargoes should ensure that their personnel are adequately trained, commensurate with their responsibilities.

10.4.2 Management

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.

Management at all levels should exercise day-to-day responsibility for health and safety. In order to draw up safe operational procedures for the transport and handling of dangerous cargoes, management should carry out an assessment of the risks involved. In certain cases a quantified risk assessment may be necessary.

10.4.3 Personnel (cargo interests, port operators and ships)

10.4.3.1 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.

10.4.3.2 Shore-based personnel should receive general awareness/familiarization training, function-specific training and safety training. Such persons may be those who:
- Classify dangerous goods and identify Proper Shipping Names of dangerous goods;
- Pack dangerous goods in packages;
- Mark, label or placard dangerous goods;
- Pack/unpack cargo transport units;
- Prepare transport documents for dangerous goods;
- Offer dangerous goods for transport;
- Accept or receive dangerous goods for transport;
- Handle dangerous goods in transport;

- Prepare dangerous goods loading/stowage plans;
- Load/unload dangerous goods into/from ships;
- Carry dangerous goods in transport;
- Inert cargo tanks;
- Measure and sample cargo tanks;
- Wash cargo tanks under the approved procedures and arrangements;
- Enforce, survey or inspect for compliance with applicable legal requirements and rules and regulations; or
- Are otherwise involved in the transport of dangerous goods as determined by the Competent Authority.

10.4.4 Training content

10.4.4.1 General awareness/familiarization training

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.

10.4.4.2 Function-specific training

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.

10.4.4.3 Safety training

10.4.4.3.1 Each person should receive training commensurate with the risks in the event of a release ofdangerous cargoes and the functions he performs, on:

- Methods and procedures for accident avoidance, such as proper use of package handling equipment and appropriate methods of stowage and segregation of dangerous cargoes;
- Necessary emergency response information and how to use it;
- General dangers of the various types and classes of dangerous cargoes and how to prevent exposure to their hazards including, if appropriate, the use of personal protective clothing and equipment; and
- Immediate procedures to be followed in the event of an unintentional release of dangerous cargoes, including any emergency procedures for which the person is responsible and the personal protection procedures to be followed.

10.4.4.3.2 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.

10.4.4.3.3 Records of all safety training undertaken should be kept by the employer and made available to the employee if requested.