

**AssanPort**

# **ASSANPORT PORT FACILITY DANGEROUS CARGO HANDLING GUIDE**



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## REVISION PAGE

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## **1 ENTRY**

**1.1.** The entry and presence of dangerous cargoes in port areas and any consequential handling should be controlled to ensure the general safety and security of the area, the containment of the cargoes, the safety of all persons in or near the port area, and the protection of the environment.

**1.2.** The safety of life at sea and the safety and security of a ship, its cargo and its crew in a port area are directly related to the care which is taken with dangerous cargoes prior to loading or unloading, and during their handling.

**1.3.** These Recommendations are confined to dangerous cargoes which are in a port area as part of the transport chain. These Recommendations do not apply to dangerous substances which are used in a port area or are for general storage in the port area, but Governments may wish to control such use and storage by national legal requirements. Should a substance covered by either of these exclusions subsequently be shipped, these Recommendations should then be applied, even though the substance is already in the port area.

**1.4.** An essential pre-requisite for the safe transport and handling of dangerous cargoes is their proper identification, containment, packaging, packing, securing, marking, labelling, placarding and documentation. This applies whether the operation takes place in a port area or at premises away from a port area.

**1.5.** 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.

**1.6.** 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.

**1.7.** 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.

**1.8.** In preparing this guide IMDG CODE, ERG 2012 and IMO 1216 CR. documents have been applied to and the informations are used.

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### 1.1 General information of the port facility

|   |   |  |
|---|---|--|
| 1 | Name/title of the facility operator   | ASSAN LİMAN İŞLETMELERİ A.Ş.   |
| 2 | Contact information of the facility operator (address, phone, fax, e-mail and web page) | ASSAN LİMAN İŞLETMELERİ A.Ş.<br>İSKENDERUN ORGANİZE<br>SANAYİ BÖLGESİ SARISEKİ MH.<br>YUSUF İZZETTİN AKINCI<br>BULVARI NO:4/1<br>İSKENDERUN / HATAY<br>Phone:0326 629 4000<br>Fax:0326 629 4044<br>Mail: info@assanport.com<br>www.assanport.com                                     |
| 3 | Name of the facility  | ASSANPORT  |
| 4 | The province where the facility is located  | HATAY  |
| 5 | Contact information of the facility (address, phone, fax, e-mail and web page)          | Assan Liman İşletmeleri A.Ş.<br>İskenderun Organize Sanayi Bölgesi<br>Sariseki Mh. Yusuf İzzettin Akıncı<br>Bulvarı No:4/1<br>İSKENDERUN / HATAY<br>Phone:0326 629 4000<br>Fax:0326 629 4044<br>Mail: info@assanport.com<br><a href="http://www.assanport.com">www.assanport.com</a> |
| 6 | The geographical region where the facility is located                                   | DOĞU AKDENİZ BÖLGESİ   |
| 7 | The Port Authority to which the facility is connected and its contact details           | İSKENDERUN BÖLGE LİMAN<br>BAŞKANLIĞI<br>Phone: 0326 613 2740<br>Fax: 0326 614 02 26  |
| 8 | The Mayor's Office to which the facility is connected and contact details               | İSKENDERUN BELEDİYESİ<br>Phone: 0326 613 49 90<br>Fax: 0326 614 53 33  |
| 9 | The name of the Free Zone or Organized Industrial Zone where the Facility is Located    | İSKENDERUN ORGANİZE SANAYİ<br>BÖLGESİ  |

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| 10                             | Date of validity of the Coastal Facility Operating Permit/Temporary Operating Permit Document  |              | 14.12.2022  |                 |               |          |
| 11                             | Operating Status of the Facility (X)   |              | Own cargo and an additional 3. party (...)  | Own cargo (...) | 3. party (x)  |          |
| 12                             | Name and surname of the facility manager, contact details (phone, fax, e-mail)   |              | TOROS TOLGA KELEŞOĞLU<br>Phone: 0326 629 4001<br>Fax: 0326 629 4044<br>toros.kelesoglu@assanport.com  |                 |               |          |
| 13                             | Name and surname of the facility's hazardous cargo operations officer, contact details (phone, fax, e-mail)  |              | Olgay ÇIPLAK<br>Phone: 0326 629 4002<br>Fax: 0326 629 4044<br>olgay.ciplak@assanport.com  |                 |               |          |
| 14                             | Name and surname of the facility's hazardous cargo safety consultant, contact details (phone, fax, e-mail)   |              | Hakan YEŞİL<br>Gsm: 05452936472<br>Phone: 0216 375 76 66<br>hakan.yesil@ayemis.com  |                 |               |          |
| 15                             | Sea coordinates of the facility  |              | 36°41'6,247" K / 36°11'40,252"D   |                 |               |          |
| 16                             | Types of dangerous cargoes handled at the facility (MARPOL Annex Appendix I, IMDG Code, IBC Code, IGC Code, IMSBC Code, Grain Code, TDC Code cargoes covered by asphalt/bitumen and scrap cargoes)   |              | -Annex I-Bilge, sludge and waste oil.<br>-Annex VI-Sludge and Sewage<br>-IMDG cargoes<br><br>None of the subjected cargoes have been handled by the terminal in accordance with the TDC Code, Grain Code, IGC Code including asphalt/bitumen and scrap. |                 |               |          |
| 17                             | Dangerous cargoes handled at the facility (16.the cargoes other than the IMDG Code will be written separately in terms of the cargoes in the article. The request for additional cargo will be sent to the Appendix port authority via the Annex-1 form. It will be added to the TYER when found appropriate). |              | -   |                 |               |          |
| 18                             | Classes for handled cargoes that are subject to the IMDG Code  |              | Class 1, Class 2, Class 3, Class 4, Class 5.1, Class 5.2, Class 6.1, Class 8, Class 9   |                 |               |          |

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|    |  |  |
|----|--|--|
| 19 | Groups in the characteristic table for handled cargoes subject to the IMSBC Code                         | -  |
| 20 | Types of ships that can dock at the facility   | Container, General Cargo,Ro/Ro,Bulk Carrier  |
| 21 | Distance to the property's carriageway (kilometers)  | 300m   |
| 22 | The distance of the facility to the railway (kilometers) or railway connection (Available/Not available) | Passing through the Terminal, without Terminal joint.  |
| 23 | The name of the nearest airport and the distance to the resort (kilometers)                              | Hatay Airport (aprx. 65 km)  |
| 24 | Cargo handling capacity of the facility (Ton/Year; TEU/Year; Vehicle/Year)                               | 1.000.000 ton/year, 250.000 TEU/year, 5.000 truck/year   |
| 25 | Whether scrap handling is carried out at the facility  | No   |
| 26 | Is there a border gate? (Yes/No)   | Yes  |
| 27 | Is there a bonded site? (Yes/No)   | Yes  |
| 28 | Cargo handling equipment and capacities  | 4 pcs. MHC (2 pcs. 150 t, 2 pcs. 100 t)  |
| 29 | Storage tank capacity (m <sup>3</sup> )  | 25+10 m <sup>3</sup> fuel tank (for terminal equipments), see below data for the Garbage & Waste capacities. |
| 30 | Outdoor storage space (m <sup>2</sup> )  | 83.516,91 m <sup>2</sup>   |
| 31 | Semi-enclosed storage space (m <sup>2</sup> )  | -  |
| 32 | Closed storage area (m <sup>2</sup> )  | 1932 m <sup>2</sup> (Will not be used for IMDG cargo storage)  |
| 33 | Designated fumigation and/or fumigation area (m <sup>2</sup> )   | 90 m <sup>2</sup>  |
| 34 | Contact details of the name/title of the provider of guidance and towing services                        | 1. Anadolu Kılavuzluk A.Ş. (Phone: (0326) 645 71 70)   |

|           |                                |              |         |               |          |
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|   |  |  |   |                               |  |
|---|--|--|---|-------------------------------|--|
|   |  | 2.Arpaş Ambarlı Römorkaj Pilotaj Ticaret Anonim Şirketi (Phone: 326 645 3810)<br>3. Uzmar Uzmanlar Denizcilik Tic. Ve San. Ltd. Şti. (Phone: 326 6454346)<br>(Authorized Companies by the İskenderun Regional Port Harbour Master) |   |                               |  |
| 35  | Has a Security Plan been created? (Yes/No)   |  | Yes   |                               |  |
| 36  | Waste Acceptance Facility capacity (This section will be organized separately according to the wastes accepted by the facility.) |  | Type Of Waste   | Capacity (m³)                 |  |
|   |  |  | Bilge Water Tank (exc. water)<br>Bilge Water Tank (inc. water)<br>Sludge Tank<br>Waste Oil Tank<br>Seperated Water Tank | 25+15<br>45<br>60<br>20<br>15 |  |
| 37  | Berth/pier, etc. characteristics of the fields   |  |   |                               |  |
| Berth/Pier No                                       | Height (meters)  | Width (meters)   | Maximum water depth (meters)  | Minimum water depth (meters)  | The largest ship to dock is in tonnage and length (DWT or GRT - meter) |
| Berth 1   | 341  | 45   | 20  | 16,5                          | 175.000 DWT  |
| Berth 2   | 341  | 45   | 20  | 16,5                          | 175.000 DWT  |
| Name of the pipeline (If available at the facility) |  |  | Number (piece)  | Length (meters)               | Diameter (inch)  |
|   |  |  |   |                               |  |

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

### **1.2.1 General**

**1.2.1.1** Some of the cargoes defined as Class 7 radioactive materials and Class 6.2 infectious substances in IMDG code shall not be taken inside the port facility. These cargoes are defined as dangerous cargoes which cannot be permitted absolutely and if the regulatory authority permits, they are processed as transit cargo. They are loaded and unloaded at a private area within the port facility and taken away by dispatching without keeping them at the port facility. Necessary Class 1 handling equipment and safety precautions are available regarding the container operation. Cargoes which are wrapped, packed or prepared in the form of bale/bunch/truss within the scope of MARPOL Annex-I and IMDG codes general cargoes and project cargoes are handled. All kinds of bulk cargo, mines, coal, cement, clinker, fertilizers containing ammonium nitrate, all kinds of solid bulk cargoes of this type within the scope of IMSBC code and all kinds of cereals shipped as bulk cargo within the scope of Grain code are handled at the cereal port facility. In case of loading/discharging, handling and storage of cargo within the scope of TDC Code, the requirements will be fulfilled. Liquid cargoes within the scope of IBC code are not handled at the port facility within the scope of IBC code. Cargoes within the scope of IGC code are not handled.

### **1.2.2 Preparation Before Handling Dangerous Cargoes**

(1) Planning and preparation related to the handling and temporary storage of the dangerous cargo that are coming to our coastal facility are made by taking into consideration the information that is stated in the preliminary notification and the safety data sheet and the related personnel are informed.

(2) The responsible department in our coastal facility asks for the safety data sheet of the dangerous cargoes, it takes the measures to be taken for first aid and emergency preparedness and the safety data sheet for handling and temporary storage applications into the account. The discussion how to handling of dangerous cargoes should be made between Operation and HSE department before handling. The safety data sheet is prepared by safety data sheet makers and the safety data sheets that do not meet these requirements are not accepted by our coastal facility.

(3) If the cargo transport unit or packaging is not available for repackaging or rearranging for making available to transport at the shore facility, it shall not be accepted to the shore facility.

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



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1.2.2.1.1 A coordination meeting will be held at least 1 day prior to the acceptance of dangerous cargoes to the port facility and the representatives of operation, Field planning, HSE unit, TMGD and other related persons shall participate to the meeting. (The resolution to hold such meeting will be taken through the operation or HSE/TMGD departments regarding the dangerous cargoes handled routinely which are accepted to the port)

1.2.2.1.2 Following issues will be discussed during the coordination meeting with regard to the dangerous cargo (es) to be accepted to the port:

1. Risk arising from dangerous cargo
2. Interaction with dangerous cargoes existing at the port facility,
3. Interaction with cargoes planned to be accepted to the port facility in the near future,
4. Conditions for stowage
5. Conditions for segregation
6. Requirement of materials and equipment with respect to emergency response
7. Sufficiency of emergency response equipments
8. Interaction with the neighboring area (s)

The issues mentioned herein above will be discussed within the scope of current IMDG CODE documents and a management decision for accepting/rejecting will be taken.

1.2.2.1.3 If a decision is taken at the meeting in favor of accepting the dangerous cargo, management, operation, storage, safety and emergency response departments shall be notified and the necessary preparations and acceptance process will be commenced.

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

### **1.2.3 Notification Storage**

- (1) The notifications that are made to our coastal facilities shall be kept in physical or electronic environment for 3 years and shall be made available for the inspections of the General Directorate of Maritime Affairs or the related port authority.

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### **1.3 Procedure for Safe Handling Operation of Packed Dangerous Cargoes**

#### **1.3.1 Container**

- 1.3.1.1** The container transporting dangerous materials subject to customs regime has been declared to the Customs Authorities; and the Customs Administration, as per the declaration, orients such container to RED line for physical examination and document control, to YELLOW line for control of correctness without need to physical examination, to BLUE line where the declarations and documents will be controlled later, to GREEN line where documents are not controlled and goods are not physically checked and determines the conduction of COMPLETE DETERMINATION, PARTIAL EXAMINATION or EXTERNAL EXAMINATION.
- 1.3.1.2** Customer or the representative Agent thereof will make a request at the agency port (registry office, commercial tariff unit, CFS office) and a service order will be formed. Opening and closing minutes shall be signed by the customs examiner and a request will be made to CFS office with these minutes and the declaration.
- 1.3.1.3** If the dangerous material inside the container does not have material safety data sheet (SDS), it will be requested from the customer or his representative. Proceedings shall not be started for dangerous cargoes which do not have SDS. SDS is reviewed by operation and HSE/TMGD departments and the required measures are taken and assignment of teams is carried out.
- 1.3.1.4** The container, requested in line with the Service Order issued by CFS office, is brought to CFS site.
- 1.3.1.5** The container is loaded on the Port Vehicle at the stowage area and brought to the CFS area and unloaded at the planned location. The examination of container is completed under the control of the customs examiner, customer/his representative and port CFS operation authority and the Opening and Closing minutes is prepared.
- 1.3.1.6** During the Examination and Sampling process, teams wearing Protective Clothing will intervene the wastes (packaging paper, plastics, fixing materials etc) and leakage from the container in which there are Dangerous Materials and will perform the cleaning. The wastes will be taken to the waste collection center to be disposed.
- 1.3.1.7** The container will be taken to the container stowage area following the field assignment performed subsequent to the completion of required proceedings.
- 1.3.1.8** Containers containing Dangerous Materials are not placed in the “temporary storage place closed warehouse” but they are placed in general or specific warehouses in line with features of these containers as per 77th article of Customs Regulation.

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### **1.3.2 Dangerous cargoes in packaged form**

- 1.3.2.1** Loading or unloading of packed dangerous cargoes will be made as direct delivery within the port facility.
- 1.3.2.2** The loading or unloading program will be prepared 1 day before at the operation meeting. Number of equipments and cranes, teams and shifts as well as the port to be used shall be specified at this meeting. The personnel who will work in the operation will be provided with information as regards the risks of the cargo and they will be equipped with the necessary protective outfit. Environmental safety is ensured by the HSE unit. Personnel will be employed neither in the hold of the ship nor in the work area prior to the conduction of gas measurements.
- 1.3.2.3** Necessary warnings will be made in order that the trucks do not to make loading exceeding loading limit and people in charge will pay necessary attention with respect to this issue.
- 1.3.2.4** The drivers will wait at a specified location away from the vehicle during the loading and unloading of vehicles. It will be controlled if the driver has the necessary protective equipments or not.
- 1.3.2.5** The shift superintendent will be responsible from controlling the work security, control of equipments, entry and exit of outsiders, safe handling of the cargo, environmental cleaning and duly performance of these works.
- 1.3.2.6** Working order will be organized through the berth operator, steersman and chief officer of the ship. Berth operator ensures the realization of loading or unloading as per the cargo plan. The responsibility of loading and unloading as per the cargo plan belongs to the Berth Operator.

### **1.3.3 Requirements**

- 1.3.3.1** The facility is equipped with water pump with electrical and diesel motor for cooling having connections with water tanks with adequate volume, fire hydrant connected with fire pipes in adequate number/size in required places, fire cupboard, spare energy production devices with adequate power (generators), fire equipments, details of which are provided in Article 8.10 containing fire extinguishing devices consisting of those operating with foam (for fire extinguishing works other than buildings and liquidated gas fires) dry chemical/powder which are fixed/mobile, depending on the capacity of the facility and the location thereof.
- 1.3.3.2** Personnel working at the port facility in loading or unloading works as well as those working in processes of packaged dangerous cargoes shall be provided with trainings in line with their job descriptions and working fields on issues such as emergency situations (fire, explosion, leakage etc) and intervention, work health and security, ISPS code safety awareness and safety issues specified in Article 10.4.

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**1.3.3.3** Works and processes related with damaged cargo carrying units and packagings containing dangerous materials shall be carried out by taking necessary measures at CFS's worksite. If there are any leakages in the said cargo carrying units or packagings, works related to them will be performed at the mobile leakage pools with capacity of 2 40-feet containers.

**1.3.3.4** IMO work area has been allocated which is in compliance with segregation and storage rules for packed dangerous cargoes and containers carrying dangerous materials and temporary storage of the said packaged dangerous cargoes will be carried out as per segregation and storage rules stated in section 4. Required fire, environmental and other safety measures will be taken at these worksites. If handling and storage of dangerous materials are done at the entire worksite, then the roads will be open for reaching the units carrying cargo containing dangerous materials and the equipments enabling emergency response for intervening within a short period shall be made available at the worksite.

The cover directions of the containers containing dangerous cargoes should be determined during the stacking so as to allow intervention when necessary, and container stacking should be done by leaving sufficient intervention space.

Besides, IMDG goods which comes by RO-RO, if needs, they could be stored in a place where necessary precautions have been taken and planned beforehand. Also, they could be stored in a area where is reserved for Class 1 if that place is empty.

**1.3.3.5** The communication means used will be working, in good condition and adequate number and capacity to provide safe usage and uninterrupted communication in loading or unloading and handling operations of dangerous cargoes

**1.3.3.6** It will be controlled to ensure that the required warnings, signs and alarm buttons are placed at a visible and easily reachable location. The related personnel will be equipped with protective clothing and equipment in accordance with the work safety and health criteria at locations and situations which are dangerous. Personnel who don't have protective clothing and adequate equipment in line with their job descriptions and their working areas will not be employed.

**1.3.3.7** Cargo transport units transporting temperature-controlled dangerous materials can only be temporarily stored at IMO area where the necessary measures are taken. The temperature values of the cargo transport units will be followed up constantly and also be remotely monitored as much as applicable.

*(If smoke is observed, see EmS FIRE SCHEDULE F – F and SPILLAGE SCHEDULE S-K.*

*Check temperature reading if possible. If temperature is increasing: see EmS FIRE SCHEDULE F - F.*

*Wear suitable protective clothing and self-contained breathing apparatus.*

*Avoid all sources of ignition (e.g., naked lights, unprotected light bulbs, electric handtools, friction). Wear non-sparking footwear.)*

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**1.3.3.8** Packages containing Class 4.3 dangerous substances which, in contact with water, emit flammable gases and cargo transport units containing these types of packages will be stored at closed areas which are not affected from factors like rain, sea water and etc. Warning signs specifying the risks will be placed at the areas of storage. Cargo Transport Units (CTUs) containing the said dangerous materials could be stored in open facility areas if they are not affected from factors like rain, sea water and etc.

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#### **1.3.4 Documentation**

- 1.3.4.1** Passenger ships and cargo ships of 500 gross tonnage or over constructed on or after 1 September 1984 and carrying dangerous cargoes, shall comply with the requirements of regulation II-2/19 of SOLAS 1974. In this connection, such ships are required to carry on board a Document of Compliance in accordance with SOLAS 1974, regulation II-2/19.4 as evidence that the ship complies with the special requirements for ships carrying dangerous goods stipulated in SOLAS regulation II-2/19. Cargo ships of less than 500 gross tonnage constructed on or after 1 February 1992 shall comply with the requirements of regulation II-2/19 of SOLAS 1974, unless Administrations have reduced the requirements and this has been recorded in the Document of Compliance.
- 1.3.4.2** The Document of Compliance provides information on the classes of dangerous cargoes that may be carried on deck and in each compartment of the ship.
- 1.3.4.3** On board a ship carrying packaged dangerous cargoes a special list or manifest setting out the dangerous cargoes and marine pollutants and their location is required. A detailed stowage plan, which identifies by class and sets out the location of all dangerous cargoes and marine pollutants on board, may be used in place of such a special list or manifest. IMO FAL form 7 provides a format for such a manifest.
- 1.3.4.4** The dangerous cargoes and/or marine pollutants list or manifest shall be based on the documentation and certification required by chapter 5.4 of the IMDG Code and will contain the stowage location and the total quantity of dangerous cargoes and/or marine pollutants on board.

#### **1.3.5 Supervision**

- 1.3.5.1** After the approach of the ship to interface, the captain and port authority will supervise the transport of dangerous cargoes within their respective areas of responsibility while the shift superintendent or the berth operator will ensure performance of proceedings in line with the risks related to the cargo and they shall notify the captain regarding steps to be taken in emergency cases.
- 1.3.5.2** The responsible person for the ship will usually be the chief officer or cargo officer. These persons will ensure the continuity of communication with the shift superintendent or the person responsible with operations.

#### **1.3.6 Information for operational and emergency purposes**

- 1.3.6.1** The persons responsible from operation, within their respective areas of responsibility, should have the following information with respect to all dangerous cargoes transported or handled immediately available:
- 1.3.6.2** The description of dangerous cargoes in accordance with Chapter 5.4 of the IMDG Code;

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

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

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

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

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

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

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

### **1.3.7 General handling precautions**

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

1. Every person engaged in the handling of dangerous cargoes exercises reasonable care to avoid damage to packages, unit loads and cargo transport units.

2. Whilst dangerous cargoes are being handled, precautions are taken to prevent unauthorized access to handling areas.

3. If there is any loss of containment of dangerous cargo, every practical step is taken to minimize risks to persons and adverse effects to the environment.

4. Wrappings and packaging to be used in the activities of changing of cargo transport units, repair thereof or placing of the damaged packages inside the saving packages should be in accordance with the structure of dangerous materials and they shall be produced and certified as they are set out in chapter 6 of the IMDG Code



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5. Provisions of Code of Practice for Packing of Cargo Transport Units (CTU code) will be considered during internal loading process and/or loading process of other transport mode vehicles of the cargo transport units within the port facility. CFS personnel responsible of area shall issue a Container/Vehicle Packing Certificate if loading of a container or vehicle is performed at the areas of the facility where cargo transport units are unloaded and/or at the closed warehouses (CFS areas). Example for this is provided in Chapter 4. It will be checked whether each cargo transport unit coming to the port facility for transportation by the sea has got “Container/vehicle packing certificate” or not at the entry points to the port and it will not be permitted for cargo transport units to make loading to the ship if they don’t have the required certificate.

6. The handling and temporary storage operations shall be conducted as per the rules specified on table 1 (Schedule for segregation of the dangerous cargoes at the port facility) within the annex of “Recommendations on the Safe Transport of Dangerous Cargoes and Related Activities in Port Areas” as part of circular with no MSC/Circ.1216 of the International Maritime Organization. Details are provided in Chapter 4.

7. Fumigated cargo transport units and/or cargo transport units containing poisonous gases shall be stowed in a manner that their covers cannot be opened in an uncontrolled way.

8. Cargo transport units by which dangerous materials with temperature control are transported will be temporarily stored at the IMO area after the required precautions are taken. The temperature values of these cargo transport units will be constantly monitored and followed up through the camera system.

9. There is no closed area for packages containing dangerous materials releasing flammable gases when contacted with water and for cargo transport units containing them. If containers including class 4.3 type cargo possess qualities which won’t be affected by wind, sea water or similar factors, they can be stowed at the IMO facility by considering the related rules. In other cases, it will not be allowed to handle and let them enter the port facility.

### **1.3.8 Determination, Notification of Gross Weights of Loaded Containers and Non-shipment of Non-DBA Containers**

**1.3.8.1** Will be operated under the Legislation of Transportation of Dangerous Cargo by Sea and Directive on the Determination and Notification of Gross Weights of Containers Transported by Sea.

**1.3.8.2** It is a legal obligation to verify the gross weights of the full containers to be loaded into ships from our coastal facilities in order to ensure the safer maritime transport, to notify the gross gross-weights (DBA) and to comply with the responsibilities of the parties.

**1.3.8.3** DBA Information System created by Ministry of Transportation will be used for preparation of DBA documents and follow of gross weights of containers while preparing the DBA Documents.



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The DBA document should include following information:

- a) Container Number
- b) Maximum Carrying Capacity Value of Container (Payload)
- c) Verified Gross Weight and Weight Measurement Unit
- d) Date of Weighing
- e) The Identity of The Weighing Instrument (Registration No / Serial No / Authorization No etc.)
- f) DBA Detection Method (Method-1 / Method-2)
- g) Trade Name of The Possible Coastal Facility Where The Container Will Be Loaded to The Ship
- h) Trade Name and Authorization Certificate Number of The Weighing Device Operator
- i) Trade Name and Contact Information of The Shipper or Representative
- j) The Name, Surname and Title of Approver of DBA Certificate

**1.3.8.4** DBA information can be sent as electronic documents or electronic communication systems such as Electronic Data Interchange (EDI) or Electronic Data Processing (EDP) or by electronic mail.

**1.3.8.5** When the loading of a full container without DBA information to the ship is rejected under the Directive by the relevant parties, matters relating to the temporary storage of the container in question, the return to the shipper, the cost of demurrage and the like shall be subject to the provisions of the contract between the commercial parties.

The declarations of the DBA made by the shipper or his/her representative shall be deemed to have been made to the carrier.

#### **1.3.8.6 Intermodal Container Movements and Transfers**

- (1) In the case of intermodal transport, the DBA information is given to the person receiving the delivery by the deliverer in the delivery of the container between the modes.
- (2) If a full container is delivered to the shore facility with a ship that is within the scope of the Directive to be interchanged, the full container must have knowledge of the DBA before the ship is loaded.
- (3) It is not necessary to reweigh the containers which have DBA information from containers to be discharged from the ship to be transferred to another ship.
- (4) The DBA information of the full container shall be notified to the coastal facility operator to whom full containers are transferred by the carrier conducting the transfer. The shore facility to be transferred by the captain of the ship to which this full container will be transferred relies on the DBA information provided by the conveyor.

#### **1.3.8.7 Inconsistency Detected in Gross Weight Information**

- (1) The DBA is valid when there is an inconsistency between the gross weight which is declared before verification of gross weight of full container by determination and DBA.
- (2) The difference between the actual gross weight of the filled container and the declared DBA is not more than  $\pm 5\%$ . The error rate of  $\pm 5\%$  is determined as an

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administrative sanction limit and does not eliminate the obligation of the shipper to determine the DBA value of the full container with the least error by the methods specified in this Directive.

(3) It is the responsibility of the coastal facility operator to regulate the final DBA certificate in case of a difference of more than  $\pm 5\%$  between the gross weight obtained by the shore facility as a result of the DBA and the coastal facility due to the reasons resulting from the shore facility operations. The coastal facility operator transmits the final DBA certificate to the carrier or his representative for the notification of the bearer or his / her representative and notifies the relevant port authority.

#### **1.3.8.8 Containers Exceeding The Maximum Payload**

(1) According to SOLAS-74 Section 6, Rule 5, a container under the CSC Convention cannot be loaded to exceed the maximum carrying capacity specified on the mandatory safety approval plate.

#### **1.3.8.9 Empty Containers and c Dirty Tank Containers**

(1) DBA information is not required for empty containers. However, those who offer empty containers to maritime transport (owners of empty containers, operators, etc.) should ensure that the containers are empty.

(2) DBA information of tank containers must be conveyed by those who present them to maritime transport to the carrier or representative or the coastal facility operator.

(3) According to the International Standardization Organization's (ISO) Container Marking and Identification Standard, the tare weight of the container shall be visible on the container. This tare weight is used to verify the gross weight of the filled container when necessary.

#### **1.3.8.10 Heavy Loads, Project Loads and Other Loads**

(1) DBA information of full containers, regardless of type, must be determined and notified to the relevant parties. However, DBA information is not required in situations that containers where an artificial platform / deck is created by using more than one foldable (top, two or four edge open rack) containers and heavy loads, project loads or other loads will be placed on them. When the ship loading plan is created, stability calculations are made by taking into consideration the weight of the loads placed on it and the tare weights of these containers.

#### **1.3.8.11 Incorrect Notification and Cancellation of DBA Certificate**

(1) In the case of incorrect entry of the information in the DBA document by the organizer of the DBA document, the correction shall be made via the DBA Information System before reaching of the full container to the shore facility and this period shall not exceed 72 hours.

(2) Records of errors and regular corrections are kept regularly.

(3) Commercial losses arising from the failure to notify DBA information to the related parties or misrepresentation are subject to the contractual provisions between the parties.

(4) DBA certificate can be cancelled by notifying it to the DBA certificate to the General Directorate of Maritime Affairs if the packed container is returned to the shipper without being transported and without being loaded to the ship. However, in this case, the control fee is charged.

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#### **1.3.8.12 Full Container Without Verified Gross Weight**

(1) When the full container with no DBA information is accepted to the shore facility, it shall be determined by the coastal facility in writing or electronically to the installer or its representative in accordance with Method-1 before loading the DBA of the container on board.

(2) A full container without DBA information cannot be loaded into a ship.

(3) If requested by the General Directorate of Maritime Affairs, information regarding the full containers loaded from ships of the coastal facilities shall be submitted.

(4) To make invoicing for DBA detection service to the installer or her/his representative.

(5) The full container loaded with exceeding the maximum load capacity (payload) shall not be loaded into the vessel. If the payload is detected in the container, the load will be notified to related parts. Under the supervision of the port personnel, the cargo reload is opened and the container is discharged through so that it remains within the payload limit range. It is closed and sealed again. Final weight control is performed.

(6) DBA certificate not issued through DBA Information System is not accepted. Each DBA document will be issued only through the DBA Information System.

(7) The facilities shall not use the weighing instruments which do not comply with the criteria and lose their competence in the authorization period to determine the DBA. .

(8) DBA information shall be recorded and stored in physical or electronic form for at least three years. In addition, these documents will be submitted when requested by the General Directorate of Maritime Affairs Regulation.

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#### **1.4 Operational procedure of safe handling of bulk solid dangerous cargoes:**

Loading or unloading of solid dangerous cargoes will be made direct delivery plan at the berths within our port facility. Temporary storage could be done in open areas by taking the necessary precautions and considering the operational conditions at the port facility. Equipment required for coal and other cargoes will be provided when the relevant cargo is handled. On the condition that the necessary precautions are taken for their storage in the back field, the storage of the cargoes that are not considered objectionable can be done.

##### **1.4.1 Solid bulk dangerous cargoes**

**1.4.1.1** The loading or unloading program will be prepared 1 day before at the operation meeting. Number of equipments and cranes, teams and shifts as well as the port to be used shall be specified at this meeting. The personnel who will work in the operation will be provided with information as regards the risks of the cargo and they will be equipped with the necessary protective outfit. Environmental safety is ensured in line with HSE procedure. Personnel will be assigned neither to the hold of the ship nor to the work area before the gas are measurements conducted.

**1.4.1.2** Necessary warnings will be made in order that the trucks do not to make loading exceeding loading limit and people in charge will pay necessary attention with respect to this issue.

**1.4.1.3** The drivers will wait at a specified location away from the vehicle during the loading and unloading of vehicles. It will be controlled if the driver has the necessary protective equipments or not.

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

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

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

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

##### **1.4.2 Grain cargoes**

**1.4.2.1** Grain cargo: Wheat, Corn, Rye, Oats, Barley, Rice, Pulses, Seeds etc. and their processed forms and cargoes resembling grain in their natural state.

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**1.4.2.2** Sufficient time from the arrival time of the ship or cargo and before the start of handling, shipper shall provide the terminal with updated information on the physical and chemical properties of the cargo.

**1.4.2.3** The equipment, crane, crew, number of posts and berth to be used are determined. The personnel who will work in the operation are informed about the characteristics of the cargo and are equipped with the necessary personal protective equipment. Environmental safety is provided by HSE.

**1.4.2.4** Necessary warnings are made so that the trucks do not load excessively, and the responsible pay attention to this issue. After loading, the top of the trucks must be covered with a suitable type of tent.

**1.4.2.5** Occupational safety in the working area, control of equipment, entry and exit of external persons, safe handling of the cargo, environmental cleaning and control of the proper execution of these works are in the hands of the shift supervisor.

**1.4.2.6** Before loading or unloading, the Captain and the terminal representative must agree on an Evacuation-Loading Plan as per SOLAS 74 Regulation VI/7.3 to ensure that the forces and moments allowed on board are not exceeded. In case of any changes to the plan, the Captain and the terminal representative will be informed.

**1.4.2.7** An effective communication will be established between the terminal and the ship during the discharge and loading process.

**1.4.2.8** The tarpaulin to be used to prevent the material from falling into the sea during the unloading or loading of bulk grain cargoes will be kept between the ship and the port during the operation. A person responsible for cleaning the tarpaulin laid between the ship and the port and the spilled cargo will be assigned.

**1.4.2.9** Grain should be kept dry. It requires good ventilation as it is prone to heat and fermentation.

**1.4.2.10** The stacking factor depends on the type of grain and whether it is shipped in bulk or in bags.

**1.4.2.11** Dust generated during grain handling should be stacked away from heat sources, as dust explosion is likely. Smoking should not be allowed during grain handling.

### **1.4.3 Requirements**

**1.4.3.1** Whilst the areas, where handling is done in line with the risks of the dangerous cargo, are determined, regulatory authority's buildings, other facility near the facility, the types of cargo handled at these facilities and features of other cargo which are temporarily stored and handled at the facility, and the fastest and the safest access opportunities as to emergency responses will be taken into consideration.

**1.4.3.2** Issues as regards additional safety precautions to be taken at the port facility and these precautions will be provided by the operations department.

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- 1.4.3.3** The shift superintendent or the berth operator will be assigned to be responsible from handling of solid bulk dangerous and their duties are defined within quality management system.
- 1.4.3.4** Electrical equipments, devices and tools to be used at the areas where dangerous materials are handled should have adequate standards for being used at flammable, sparkling and explosive environments. Electrical lamps other than arc lamps shall be used in loading operations of solid bulk dangerous cargoes and these lamps should be gastight.
- 1.4.3.5** Adequate number of personal protective clothing, equipment and outfit shall be provided in line with the specifications of solid bulk dangerous cargoes which are handled and the risks they can impose.
- 1.4.3.6** At the areas where solid bulk dangerous cargoes releasing poisonous or flammable gases are handled, periodic controls will be conducted for measuring poisonous or flammable gas concentrations as well as their probable dissemination and the precautions taken will be recorded.
- 1.4.3.7** Water balls should be place in vicinity of areas where dangerous materials like coal, which have spontaneous combustion but not affected by water, are stored and watering works should be carried out in a way to avoid combustion. It will be considered if there is a drainage system for collecting the polluted water in the environment when the temporary storage area is announced.
- 1.4.3.8** Canvas to be used for avoiding the solid bulk dangerous cargoes from falling to the sea during evacuation or while loading to the ship, will be kept between the ship and the port during the operations.
- 1.4.3.9** The captain who will load/unload the solid bulk dangerous cargoes will receive the detailed loading or unloading plan which includes details as to the position and quantity of the cargo in the ship from the berth operator prior to the beginning to loading or unloading process. An agreement shall be reached between the captain and the berth operator as to the said loading or unloading plan.
- 1.4.3.10** The captain and the berth operator will ensure, within their respective areas of responsibility, that operations regarding transport, handling or loading or unloading of solid bulk dangerous cargoes are done in accordance with “International Maritime Solid Bulk Cargo Code (IMSBC Code)”, “the Code of Practice for the Safe Loading and Unloading of Bulk Carriers (BLU Code), “Legislation on Safe Loading and Unloading of Bulk Carriers” promulgated in Official Gazette dated 31.12.2005 number 26040 and “Manual on Loading and Unloading of Solid Bulk Cargoes for Terminal Representatives (IMO MSC/Circ.1160, MSC/Circ.1230 and MSC.1/Circ.1356)”.

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#### **1.4.4 Documentation**

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

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

**1.4.4.3** On board a ship carrying packaged dangerous cargoes, additionally a special list or manifest setting out the dangerous cargoes and their location or a detailed stowage plan is required.

#### **1.4.5 Responsibility for compliance**

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

#### **1.4.6 Emission of harmful dusts**

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

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

#### **1.4.7 Emission of dangerous vapor/oxygen deficiency**

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



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

#### **1.4.8 Emission of explosive dusts**

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

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

#### **1.4.9 Spontaneously combustible substances and substances that react with water**

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

#### **1.4.10 Oxidizing substances**

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

**1.4.10.2** Oxidizer, supports combustion. A major fire aboard a ship carrying this cargo may involve a risk of explosion in the event of contamination (e.g. by fuel oil) or strong confinement.

An adjacent detonation may also involve a risk of explosion. If heated strongly, oxidizing cargo decomposes, giving off toxic gases and gases which support combustion.

Fight fire from a protected position from as far away as possible. See EmS guide F-H and S-Q for oxidizing agents.

#### **1.4.11 Incompatible materials**

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

#### **1.4.12 Cargo which can be handled at our facility in accordance with IMSBC CODE**

##### **1.4.12.1 Group A cargo (liquefiable cargo)**



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

### **Group A cargoes**

#### **Mineral concentrations**

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

#### **Nickel ore**

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

#### **Coal**

Coal (bituminous and anthracite) is a flammable material containing natural, hard, amorphous carbon and hydrocarbons. It best fits to Group B in terms of its being flammable and the spontaneous heating feature thereof however it can also be classified as part of A group since it can get liquefied if refined (e.g. if %75 is composed of tiny particles smaller than 5 mm). In these cases, it is classified both as within A and B group.

### **1.4.12.2 Group B cargoes (which possess a chemical hazard)**

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

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

#### **Dangerous Cargoes in solid form in bulk**

In the Code these cargoes are classed as follows:

Class 4.1: Flammable solids

Class 4.2: Substances liable to spontaneous combustion

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

Class 5.1: Oxidizing substances

Class 6.1: Toxic substances

Class 8: Corrosive substances

Class 9: Miscellaneous dangerous substances and articles.

#### **Materials hazardous only in bulk (MHB)**

Materials hazardous only in bulk (MHB) MHB cargoes are materials which possess chemical hazards when transported in bulk that do not meet the criteria for inclusion in the IMDG classes above. They present significant risks when carried in bulk and require special precautions. They are described as follows:

**Combustible solids:** materials which are readily combustible or easily ignitable

**Self-heating solids:** materials that self-heat

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

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

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

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

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### **The risks Group B cargoes present**

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

#### **Coal**

Coal may create flammable atmospheres, heat spontaneously, deplete oxygen concentration and corrode metal structures. Some types of coal can produce carbon monoxide or methane.

#### **Petroleum coke**

Petroleum coke which is not calcined is sensitive to heat. It can get burned under high temperatures. There is no specific requirement for ventilation at the storage areas. There are no special requirements during transport, unloading and cleaning. It is required to wear gloves, work uniform, shoes and helmets as protective clothing. Spray nozzles should be kept available.

#### **Direct reduced iron (DRI)**

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

#### **Metal sulphide concentrates**

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

#### **Organic materials**

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

#### **Wood products transported in bulk**

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

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

### **1.4.12.3 Group C cargoes (cargoes which are neither liable to liquefy nor possess chemical hazards)**

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

#### **Examples of Group C cargoes**

##### **Iron ore and high density cargoes**

##### **Sand and fine particle materials**

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

##### **Cement**

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

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Coal will be handled in our port according to the "COAL HANDLING PROCEDURE".

Ammonium Nitrate-based fertilizers will be handled according to “AMMONIUM NITRATE-BASED FERTILIZER, UN 2067 HANDLING PROCEDURE” and “AMMONIUM NITRATE-BASED FERTILIZER, UN 2071 HANDLING PROCEDURE” and “AMMONIUM NITRATE-BASED FERTILIZER TO BE HANDLED (Not Hazardous)”.

Ferro silicone will be handled according to “FERRO SILICONE HANDLING PROCEDURE”.

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## **1.5 Safe handling operation of explosives**

### **1.5.1 General**

**1.5.1.1** It will be ensured that related instructions are given to control the vehicles used in transport of explosives within port facility.

**1.5.1.2** Presence of a person responsible of the explosive cargo at the port facility always will be ensured.

### **1.5.2 Explosives in compatibility group L**

**1.5.2.1** Explosives included in compatibility group L will not be taken to the port facility without obtaining the required permissions from the port regulatory authority.

### **1.5.3 Transport of explosives in bad condition**

**1.5.3.1** Damaged cargo transport units containing explosive materials will not be taken to the ship and/or to the port facility. Should any damages occur during handling of cargo transport unit or the explosive materials inside, the operation will be ceased immediately and the relevant parties will be notified. Replacement of damaged cargo transport units or packaging containing explosive materials will be conducted under the supervision of explosive experts by taking the related safety and security measures and by obtaining permissions from related institutions at the area specified for temporary storage.

### **1.5.4 Loading and unloading explosives**

**1.5.4.1** Handling of explosive materials at the port facility is prohibited if the required permission for handling of explosive materials is not given through the regulatory authority. Accordingly, ships carrying explosive materials as transit cargo to port facility not having permission for handling explosive materials will be allowed only by receiving approval of the relevant regulatory authority on condition that the materials are not unloaded at the port facility.

**1.5.4.2** Class 1 type explosive materials other than those within class 1.4 compatibility group S will be handled at the port facility on the condition that they are loaded to the ship without waiting or are taken out of the port facility without waiting unless special permission is obtained from the regulatory authority,.

**1.5.4.3** The ship or the vehicle loading of which is completed will leave the port facility as soon as possible after the loading of explosive materials is completed at the port facility.

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- 1.5.4.4** If storage of explosive materials is needed temporarily at the port facility due to force majeure although the organizations required for handling these materials have been made before, these materials can be temporarily stored for a maximum period of 12 (twelve) hours at a specified area determined at the port facility by getting permits from the related institution (s) by taking the required safety measures. The details of the temporary storage area are given in Annex-1. These points will be surrounded by iron barriers and a security check point will be established. It is continuously monitored with the camera system. Ship operation and freight operations will not be conducted as long as they are on the pier.
- 1.5.4.5** The port facility where explosive materials are handled will be marked by specifying them as “protected area” and the boundaries of this area will be at least 10 (ten) meters wider than the normal handling area.
- 1.5.4.6** Smoking and other sources of ignition, carrying and using matches or lighters, presence of any device, equipment or outfit which can create flames or sparks are prohibited at the areas where explosive materials are handled and the responsible personnel shall wear appropriate work uniforms and have protective outfit.
- 1.5.4.7** Equipment to be used in the handling of explosive materials should be of an approved type according to international standards and their testing and maintenance work should be duly carried out
- 1.5.4.8** As long as a permission is not obtained from the relevant port authority, the ship which is loaded with explosive materials or loading/unloading of which will be made will be approached to the berth/pier in a way that its port is in direction of going out from the berth to the sea. Steel wire rope will not be used to moor the ship to the berth/pier.
- 1.5.4.9** There will be a steel wire rope with housing at the end at the prow and stern of the ship near to water level during the time a ship loaded with explosive materials or of which loading or unloading of explosive materials will be made is moored at the port as to enable intervention by towing boats when required.
- 1.5.4.10** No repair and maintenance work will be done in the machines of a ship loaded with explosive materials without the permission of port authority even though it may be needed for the departure of the ship from the port.
- 1.5.4.11** Explosive material will be load in the shipment in accordance with IMDG Code Ref. 7.1.3 and 7.1.4.

## **1.5.5 Weather conditions**

- 1.5.5.1** Because of the nature of explosives, the provisions of Chapter 3 with respect to the handling of dangerous cargoes in adverse weather conditions need careful attention, particularly in respect of wet conditions.

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**1.5.5.2** Measures will be taken to prevent wetting of explosive materials.

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## **1.5.6 Additional measures**

**1.5.6.1** No source of ignition should be brought into or near to a place where explosives are being handled. The wearing of shoes or boots with unprotected metal nails, heels or tips of any kind should be prohibited, except where the consignment consists only of articles of class 1, and care taken to ensure that any portable lights and other electrical equipment are of a type safe for use in a flammable atmosphere.

## **1.5.7 Radio or radar transmitting**

**1.5.7.1** During the handling of explosives no radar or radio transmitter should be used within 50 metres of the cargo handling area

**1.5.7.2** No radar or radio transmitter except for VHF transmitters with power output less than 25 Watts should be used on the ships, cranes or at any place near them during the loading and unloading of explosive materials. Power units of these devices will be closed during the handling of explosive materials and they are marked visually to avoid their being opened during the handling process. Furthermore, VHF transmitters will not be placed closer than 2 meters to the explosive materials during usage thereof.

## **1.5.8 Bunkering**

**1.5.8.1** No bunkering should be permitted during the handling of explosives or while the hatches of cargo spaces containing explosives are open, unless the permission of the port authority has been obtained

## **1.5.9 Damaged packages**

**1.5.9.1** If in the course of handling explosives in the port area any package of explosives, or the seal of any such package, appears to be damaged, that package should be set aside for examination and repair or other safe disposal

**1.5.9.2** If any explosives are spilled or escape from a package, the responsible person supervising the handling should ensure that such spillage is immediately collected and safe arrangements are made for its repacking or disposal.

## **1.5.10 Completion of loading**

**1.5.10.1** When loading is completed the loaded ship or vehicle should depart from the port area as soon as is reasonably practicable.



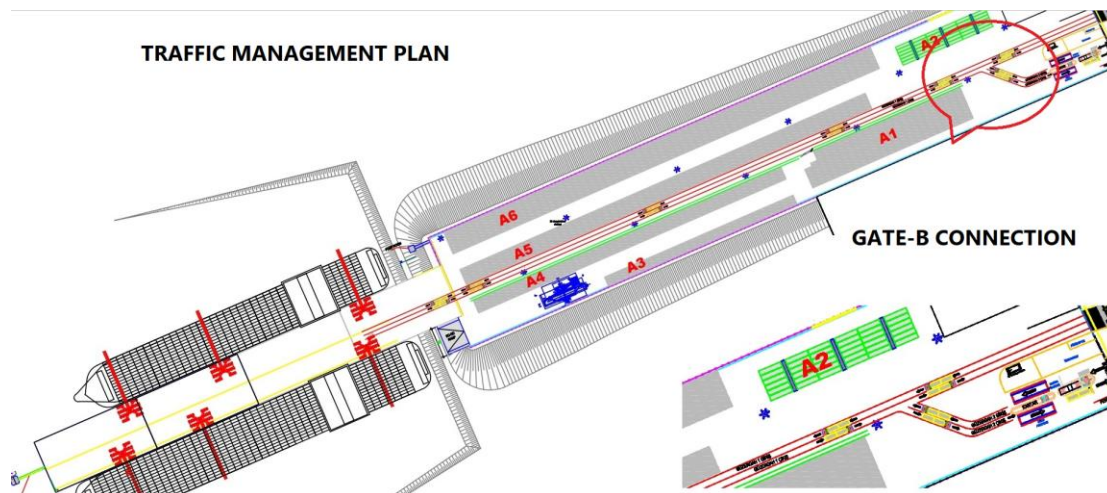
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### 1.5.11 Security

As the safety of the handling of explosives is affected by the degree of safety attained, consideration should be given to all safety measures necessary to prevent unauthorized access to explosives, including appropriate checks that all packages are received in good order and condition at all stages of the handling operation. Explosives should neither be moved nor handled unless the relevant permits have been issued and such tasks should be undertaken in accordance with the conditions specified in the relevant permits.

### 1.5.12 Traffic Management Plan

The shortest and safest route has been determined as below, in the transfer of the dangerous goods, the instantaneous risks that may occur during handling would be taken into account, if the situation evaluated the route would be selected again. Before handling explosive cargo, a traffic management plan will be prepared from the pier to the outside of the port, taking into account all emergencies.



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## 2 RESPONSIBILITIES

All parties within the dangerous cargoes 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 cargoes 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 cargoes in accordance with the legislation.

**2.1.3** Ensure safe loading, stowage, transport and unloading of dangerous cargoes 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 cargoes accidents occurred in the area of responsibility.

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

### 2.2 Responsibilities of the port facility operator

**2.2.1** Not to dock the ships carrying dangerous cargoes without the permission of the port authority.

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

**2.2.3** Not to handle dangerous cargoes for which it has not received a handling permit from the administration, and not to victimize the ships that will dock by planning in this context.

**2.2.4** To request mandatory documents, information and documents related to dangerous cargoes from the cargo executive and to ensure that they are present with the cargo. Not being obliged to accept or handle the dangerous cargo in its facility if the relevant documents, information and documents cannot be provided by the cargo executive.

**2.2.5** Sharing all the data that may be required according to the characteristics of the cargo with the ship's executive, performing the loading or unloading operation according to the agreement to be reached. Not making any changes in the operation without the knowledge of the ship's executive.

**2.2.6** To determine the working limits by taking into account the safe working capacity of the facility and weather forecasts, to take the necessary measures for the ship to be safely moored at the pier and for handling.

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**2.2.7** Checking the transport documents containing information that the dangerous cargoes arriving at the facility are properly classified, packaged, marked, labeled, plated and safely loaded into the cargo transport unit.

**2.2.8** To ensure that the personnel involved in the handling of dangerous cargoes and the planning of this handling are certified by receiving the necessary training, and not to assign the personnel without documents to these operations.

**2.2.9** To ensure that the dangerous cargoes handling equipment in the facility is in working condition and that the relevant personnel are trained and documented on the use of these equipment.

**2.2.10** To ensure that the personnel use personal protective equipment suitable for the physical and chemical characteristics of the dangerous cargo by taking occupational safety measures at the coastal facility.

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

**2.2.12** To keep up-to-date list of all dangerous cargoes in the closed and open areas of the ships berthed at the facility and to give this information to the relevant persons upon request.

**2.2.13** To inform the port authority of the instant risk posed by the dangerous cargoes handled or temporarily stored in the facility and the measures taken for it. (The risks that may occur and the measures to be applied are specified in the emergency plan. EmS and MFAG guidelines are also used.)

**2.2.14** Notifying the port authority of the accidents related to dangerous cargoes, including the accidents at the entrance to the closed areas.

**2.2.15** To provide the necessary support and cooperation in the controls and inspections carried out by the administration and the port authority.

**2.2.16** Ensuring that Class 1 (except Class 1 Compatibility Group 1.4 S) dangerous cargoes, which are not allowed to be stored temporarily, are transported out of the coastal facility as soon as possible, and to apply to the Administration for permission in cases where it is necessary to wait.

**2.2.17** To temporarily store the cargo transport units in which dangerous cargoes are transported in accordance with the separation and stacking rules, and to take fire, environment and other safety measures in accordance with the class of the dangerous cargo in the storage area. To keep fire extinguishing systems and first aid units ready for use at any time in the areas where dangerous cargoes are handled and to make the necessary controls periodically.

**2.2.18** To obtain permission from the port authority before the hot work and operations to be carried out in the areas where dangerous cargoes are handled and temporarily stored.

**2.2.19** To prepare an emergency evacuation plan for the evacuation of ships from the coastal facilities in case of emergency and to present it to the port authority and to inform the relevant people about the plan approved by the port authority.

**2.2.20** To ensure that the internal loading of the cargo transport units is carried out in accordance with the loading safety rules in the facility.

**2.2.21** Ensure appropriate, secured, safely land and connection.

**2.2.22** Ensure proper and safe entrance-exit system between the ship and shore.

**2.2.23** Provide training for personnel working in loading, unloading and handling operations of the dangerous cargoes.

**2.2.24** Keep an updated list of all dangerous cargoes in the business field.

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**2.2.25** Ensure proper and safe transport, handling, separation, stowing, temporary stock and inspection of the dangerous cargoes in the operation field by qualified, trained personnel who has taken the job security measures.

**2.2.26** Request all necessary documents relating to dangerous cargoes from the relevant person of the cargo and ensure its availability with the cargo.

**2.2.27** Provide training for all personnel on the risk of handled dangerous cargoes, safety measures, safe operation, emergency measures, safety and so on and keep training records.

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

**2.2.29** Provide necessary safety measures for improper, unsafe or risk-posing hazardous substances and notify the port authority.

**2.2.30** Provide emergency arrangements and ensure that all persons informed about these issues.

**2.2.31** Inform the port authority on the dangerous cargoes accidents occurring in the area of responsibility.

**2.2.32** Provide necessary support and cooperation for the inspections made by the authorities.

**2.2.33** Execute the activities related to hazardous substances in the docks, wharves, warehouses which are established for this purpose.

**2.2.34** Provide proper installation and equipping for the docks and wharves separated for ships and marine vessels which load and unload petroleum and petroleum products.

**2.2.35** Provide transportation of the dangerous cargoes, which are not proper for temporary stay and not allowed, out of the port facility as soon as possible without waiting.

**2.2.36** Not allow the ships and vessels carrying hazardous goods to edge in with the dock and pier without permission from the port authority.

**2.2.37** Provide a storage area proper to separation and stowage requirements and take necessary fire, environmental and other safety measures. Load and unload the dangerous cargo 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 cargoes handling area.

**2.2.38** Prepare emergency evacuation plan for the evacuation of the ships and boats from the port facilities in case of emergency.

### **2.3 Responsibilities of the Dangerous Goods Safety Consultant**

**2.4.1** Follow the compliance with the requirement to the transport of the dangerous cargoes..

**2.4.2** Provide recommendations with regard to the transportation of hazardous materials to the port facility.

**2.4.3** Prepare an annual report on the dangerous cargoes transportation activities of the facility operator to the port facility. (Annual reports are kept for years and submitted to the authorities upon request.)

**2.4.4** Check the applications and methods described below;

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**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 cargoes 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 cargoes,

**2.4.4.3** Check that if the port facility considers the special requirements relating to dangerous cargoes while purchasing means of conveyance regarding to the handled dangerous cargoes,

**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 port 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 cargoes,

**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 cargo are considered among the selection of the sub-contractor,

**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 port facility day and night safely.

**2.4.4.14** Procedures on the additional measures to be taken for loading and unloading of the dangerous cargoes 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 port 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 cargoes and wastes contaminated with dangerous cargoes,

**2.4.4.19** Information for the personal protective clothing and procedures among their use.

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**2.4.4.20** To prepare quarterly reports regarding the responsibilities set forth in the Regulation on the Transport of Dangerous Cargoes by Sea and Loading Safety and to submit this report to the Administration.

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

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

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

**2.5.3** Comply with the procedures for Dangerous Cargoes Guide and Dangerous substances formed by the port facility,

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

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

## **2.5 Responsibilities of the ship's executive**

**2.5.1** To ensure that the cargo to be carried by the ship is documented as suitable for transportation and that the cargo holds, cargo tanks and cargo handling equipment are suitable for cargo transportation.

**2.5.2** To request all mandatory documents, information and documents related to dangerous cargoes from the cargo executive and to ensure that they are present with the cargo during the transportation activity.

**2.5.3** To ensure that the documents, information and paperwork required to be found on the ship regarding dangerous cargoes within the scope of legislation and international conventions are appropriate and up-to-date.

**2.5.4** Checking the transport documents containing information that the cargo transport units loaded on the ship are appropriately marked, plated and loaded safely.

**2.5.5** To inform the relevant ship personnel about the risks of dangerous cargoes, safety procedures, safety and emergency measures, intervention methods and similar issues.

**2.5.6** Keeping up-to-date lists of all dangerous cargoes on board and declaring them to the relevant parties upon request.

**2.5.7** To ensure that the loading program, if any, is approved and documented and kept in working order.

**2.5.8** To inform the port authority and the coastal facility about the instant risk posed by the dangerous cargoes on the ship approaching the coastal facility and the measures taken for it.



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**2.5.9** Not accepting the dangerous cargo to carry the dangerous cargo in case of leakage or such a possibility.

**2.5.10** Notifying the port authority of the dangerous cargo accidents that occur on the ship while navigating or at the coastal facility.

**2.5.11** To provide the necessary support and cooperation in the controls and inspections carried out by the administration and the port authority.

**2.5.12** Not accepting to carry dangerous cargoes that are not included in the ship certificates issued by the relevant institutions and organizations.

**2.5.13** To ensure that the crew of the ship involved in the handling of dangerous cargoes use personal protective equipment suitable for the physical and chemical properties of the cargo.

**2.5.14** To ensure the loading safety requirements of the cargoes loaded on their ships.

## **2.6 Responsibilities of the Carrier**

**2.6.1** To request mandatory documents, information and paperwork related to dangerous cargoes from the cargo executive and to ensure that they are present with the cargo during the transportation activity.

**2.6.2** To control the compliance of the dangerous cargoes classified, packaged, marked, labeled and plated by the cargo executive with the legislation.

**2.6.3** To check that the dangerous cargoes are packed in accordance with the rules by using approved packaging and cargo transport units, and they are safely loaded and securely fastened to the cargo transport unit.

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

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

#### **3.1 Berthing**

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

#### **3.2 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.

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

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

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

#### **3.4 Safe handling and segregation**

**3.4.1** 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:

- 3.5.1.1** the provision of appropriate emergency alarm operating points;
- 3.5.1.2** procedures for notification of an incident or emergency to the appropriate emergency services within and outside the port area;



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**3.5.1.3** procedures for notification of an incident or emergency to the port authority and port area users both on land and water;

**3.5.1.4** the provision of emergency equipment appropriate to the hazards of the dangerous cargoes to be handled;

**3.5.1.5** co-ordinated arrangements for the release of a ship in the case of an emergency; and

**3.5.1.6** 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.

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

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

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

### **3.6 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** Electronic or other automated information processing or transmission techniques shall be employed to provide access to information.

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

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

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

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

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### **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 handling of dangerous cargoes are kept clean and tidy;

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

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

**3.7.1.6** Places where smoking is prohibited are designated; and

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

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

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

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

### **3.8 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.

sweeping or flushing. The said loads shall not be allowed to move into sea by rainwater.

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

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

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

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

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

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

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

### **3.12 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;

**3.13.1.2** 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

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units have been loaded, packed and secured in accordance with the IMO/ILO/UN ECE Guidelines for Packing of Cargo Transport Units (CTUs);

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

**3.13.1.4** 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.

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

**3.13.3** 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.

**3.13.4** 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 captain 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.

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

### **3.14 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.

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**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.

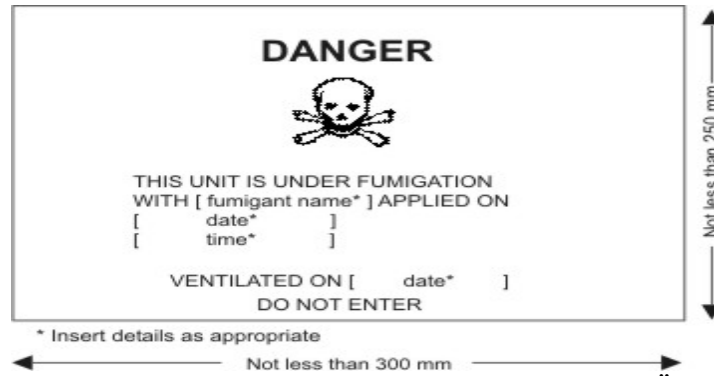
**3.14.3** The port operator should ensure that entry into a space follows carefully established procedures which are contained in international codes and guides.

### **3.15 Fumigation of warehouses, sheds or cargo transport units**

**3.15.1** The port operator should ensure that fumigation of warehouses, sheds or cargo transport units is carried out in accordance with the requirements of the regulatory authority. Reference should be made to the Recommendations on the Safe Use of Pesticides in Ships in the Supplement to the IMDG Code.

**3.15.2** The port operator should ensure that fumigation of cargo transport units is carried out only in areas designated by the port authority for this purpose.

**3.15.3** The port operator should ensure that fumigated warehouses, sheds or cargo transport units are conspicuously marked, informing anyone approaching them of the hazard involved.



**3.15.4.** Pestisitlerin Gemilerde Güvenli Kullanımı hakkındaki Öneriler fumigasyon altındaki gemiler, gemi kompartımanları, yük konteynırları, yakıt gemileri için kullanılacak bir uyarı işareti içermektedir. Yük Taşıma Birimlerinin (CTUlar) Ambalajlanmasına ilişkin IMO/ILO/UN ECE Ana Esasları yer almaktadır.

**3.15.5** The port operator should ensure that no person enters a warehouse, shed or cargo transport unit unless it has been properly ventilated, determined gas-free, fumigation warning signs have been removed and a responsible person has determined that it is safe to enter and issued a clearance certificate.

### **3.16 Contaminated wastes**

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

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### **3.17 Alcohol and drug abuse**

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

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

### **3.18 Weather conditions**

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

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

### **3.19 Lighting**

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

### **3.20 Handling equipment**

**3.20.1** 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.

**3.20.2** 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.

### **3.21 Protective equipment**

**3.21.1** 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.

**3.21.2** 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.

### **3.22 Explosives**

**3.22.1** Dangerous cargoes of class 1 other than division 1.4S should only be permitted to enter the port area for direct shipment to or from ships, unless permitted by the regulatory authority.

**3.22.2** The regulatory authority should establish specific requirements for the transport and handling of explosives, having regard to the hazards involved and the population density in the vicinity of the port area and any other relevant circumstances.

**3.22.3** The regulatory authority establishing these specific requirements should highlight the fact that the classification of explosive substances and articles, together with the compatibility group assignment and the Proper Shipping Name, under which the substance or article is to be transported, shall have approval by the competent authority of the country of manufacture prior to transport in compliance with the provisions of chapter 2.1 of the IMDG Code.

**3.22.4** The following precautions during loading and unloading of explosives should be taken into account:



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### **3.22.5 Artificial lighting**

**3.22.5.1** Electric lights, except arc lights, are the only form of artificial lighting permitted during cargo operations involving dangerous cargoes of class 1 (requirements for electrical equipment and cables are set out in chapter 7.1 of the IMDG Code);

### **3.22.6 Radio and radar**

**3.22.6.1** During loading or unloading of cargoes of class 1 (except those in division 1.4), no radio or radar transmitters should be used on the ship, in cranes or elsewhere in the vicinity, except for VHF transmitters with a power output that does not exceed 25 W and no part of their aerial systems passes within the minimum safe distance of 2 metres from the explosives.

**3.22.6.2** Some Class I appliances feature start-up systems which are sensitive to electromagnetic radiation from external sources such as radio and radar. Therefore, the said equipment shall be powered/turned off under control by activating equipment main control buttons to ensure that such devices are not powered until the completion of loading or unloading of the same.

### **3.22.7 Mechanical aids to stowage**

**3.22.7.1** All mechanical aids to stowage, whether power-driven or not, should be properly maintained and inspected before use to ensure that they are in a good working condition, comply with an appropriate recognized standard and are serviced in accordance with the manufacturer's maintenance recommendations.

### **3.22.8 Defective packages**

**3.22.8.1** Any damaged, leaking, affected by moisture or otherwise defective package should not be accepted for shipment. No repair of defective or damaged packages should be permitted on board the ship.

### **3.22.9 Protections against weather**

**3.22.9.1** Packages containing dangerous cargoes of class 1 should be prevented from becoming wetted since, the danger may, in some cases, be aggravated by wetting.

### **3.22.10 Security**

**3.22.10.1** To ensure the security of dangerous cargoes of class 1, a responsible person should be present at all times whilst the hatches are open. Unauthorized persons should never be allowed access to compartments where goods of class 1 are stowed.

## **3.23 Radioactive material**

**3.23.1** Radioactive material, assigned to class 7 of the IMDG Code and described in chapter 2.7 of the Code, should only be permitted to enter the port area for direct shipment or delivery if permitted by the regulatory authority.

**3.23.2** When radioactive material cannot directly go to or from a ship for unforeseen reasons it should only be kept in port areas with the permission of the regulatory authority.

**3.23.3** Packaged radioactive material should not be brought into the port area unless it is in conformity with the International Atomic Energy Agency's (IAEA) Regulations for the Safe Transport of Radioactive Materials, and the requirements of the IMDG Code or similar national legal requirements.

**3.23.4** Packages containing radioactive material should be stowed and segregated in compliance with the detailed requirements of sections 7.1.14 and 7.2.9 of the IMDG Code. Guidance on segregation distances required on shore is set out in annex 3.

**3.23.5** In the event of any accident involving radioactive material or packages of radioactive materials or any theft or loss of any such materials or packages, the port authority and relevant national authorities should be notified immediately. If there is

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any possibility of loss of containment of radioactive material, the area should be isolated and the appropriate contingency plans put into operation.

### **3.24 Infectious substances**

**3.24.1** Infectious substances (class 6.2 of the IMDG Code) should only be permitted to enter the

**3.24.2** Port area for direct shipment or delivery if permitted by the regulatory authority.

**3.24.3** When infectious substances cannot directly go to or from a ship for unforeseen reasons they should only be kept in port areas with the permission of the regulatory authorities.

**3.24.4** The regulatory authority should establish specific requirements for the handling of infectious substances, including but not limited to:

- .1 areas for handling;
- .2 stringent supervision; and
- .3 additional equipment for the containment of such substances.

### **3.25 Signals**

**3.25.1** 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.

**3.25.2** The specified dangerous cargoes should include:

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

**3.25.2.2** bulk flammable and/or toxic gases; and

**3.25.2.3** 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.

**3.25.3** 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.

**3.25.4** The following four scenarios should be considered:

**3.25.4.1** the ship is moored or at anchor by day;

**3.25.4.2** the ship is moored or at anchor at night;

**3.25.4.3** the ship is under way by day; or

**3.25.4.4** the ship is under way at night.

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

**3.26.5.1** access to the vessels;

**3.26.5.2** radio and radar transmissions;

**3.26.5.3** transiting the anchorage; and

**3.26.5.4** passing of ships moored or anchored.

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

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

**3.26.6.2** by night an all-round fixed red light.



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### **3.26 Communications**

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

### **3.27 Areas**

#### **3.27.1 Dangerous cargo areas**

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

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

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

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

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

#### **3.27.2 Container stacking areas/rail sidings/lorry parking areas**

**3.27.2.1** Separate areas may be designated for specific dangerous cargoes.

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

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

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

#### **3.27.3 Fumigation areas**

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

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

#### **3.27.4 Special areas for damaged dangerous cargoes and wastes contaminated with dangerous cargoes**

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

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

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

#### **3.27.5 Repairing/cleaning facilities**

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

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

#### **3.27.6 Reception facilities**

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

### **3.28 Training**

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

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### **3.29 Marine Surveillance Service**

Maritime surveillance service areas are listed below. Authorization certificates will be requested from companies providing these services.

a) Surveillance services for the ship;

- 1) Ship purchase and sale survey,
- 2) Charter entry-exit survey of the ship,
- 3) Fuel and oil measurement survey,
- 4) Load quantity survey,
- 5) Dismantling survey.

b) Surveillance services regarding loading and unloading operations;

- 1) Ship loading, unloading and transfer survey,
- 2) Port and tank site survey,
- 3) Container stock control and stacking safety surveillance at the port area and coastal facility,
- 4) Pre-loading inspection.

**3.29.1** It is requested to issue a surveillance report at the end of each surveillance service. These reports are kept at the port for at least five years to be submitted to the Ministry and relevant institutions upon request.

**3.29.2** Establishments that do not have a dangerous cargo maritime surveillance authorization certificate cannot provide surveillance services for dangerous cargoes even if they have a maritime surveillance operation authorization certificate. "Dangerous Cargoes Marine Surveillance Authorization Certificate" will be sought for dangerous cargoes.

**3.29.3** Persons who cannot document that they work in an authorized establishment will not be allowed to enter shore facilities and ships for surveillance purposes.

### **3.30 Facility Loading Safety Rules**

**3.30.1** To stop the handling operation at the port authority's coastal facility when any risk is seen and not to start it until the risk is eliminated.

**3.30.2** In order to ensure safe loading of cargoes on the ships, according to type of the cargo BLU Code and BLU Manual, Safe Practice Code for Cargo Stacking and Safety (CSS Code), Code of Practice for Packing Cargo Transport Units (CTU Code) and Safe Practices Code for Ships Carrying Timber Cargo on Deck (TDC Code) codes should be used.

**3.30.3** Carrying out the stacking of the cargoes in accordance with the relevant legislation and international agreements we are a party to.

**3.30.4** Not to load more than the loading limit considering the ship loading limit.

**3.30.5** To ensure that the cargo in bulk carriers, especially single-hold bulk carriers, is loaded in such a way that it spreads to the floor of the hold (by trapping), and to take measures to prevent the stability of the ship from being adversely affected.

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**3.30.6** To ensure that the cargo and ballast water patterns are monitored throughout the loading or unloading operation so that the ship's structure is not subjected to undue stress.

**3.30.7** Paying attention to the fact that the ship is free of heel, but if a heel is required during loading, ensuring that it is as short as possible. To ensure balanced loading and unloading in accordance with the approved stability boucle in order to avoid structural damage to the ship.

**3.30.8** Loading the cargoes with properties that may damage other cargoes, in accordance with the separation rules, in order to prevent situations such as placing the heavy cargo on the light load, placing the liquid cargo on the dry cargo, and spreading the smell of bad-smelling cargoes to other cargoes.

**3.30.9** All cargoes, cargo units and cargo transport units, except solid and liquid bulk cargoes, in accordance with SOLAS Chapter VI Part A Rule 5.6, in order to ensure that the safety measures regarding loading, stacking, separation, handling, transportation and unloading of cargoes on the ship are fully implemented and maintained. Loading, stowing and securing in accordance with the Cargo Securing Manual approved by the classification societies on behalf of the Administration.

### **3.31 Rules Regarding Dangerous Cargoes within the Scope of IMDG Code**

**3.31.1** Not to transport substances and objects that are prohibited in the IMDG Code by sea.

**3.31.2** Taking precautions in accordance with the provisions of the Regulation on the Transportation of Dangerous Cargoes by Sea and Loading Safety and the IMDG Code, taking into account the nature and extent of the risks that can be foreseen, in order to prevent damage and injury to the parties involved in the transportation of dangerous cargoes transported in packages and to minimize their effects.

**3.31.3** To ensure the use of packages defined in IMDG Code Chapter 6 and tested and given UN certificate by institutions authorized by the Ministry or authorized administration of a country that is a party to SOLAS, for the transport of dangerous cargoes by sea.

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

**3.31.5** To have the documents specified in IMDG Code Rules 5.4.3, 5.4.4 and 5.4.5 for every ship carrying dangerous cargoes in packages.

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### **3.32 Rules Regarding Dangerous Cargoes Covered by the IMSBC Code**

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

**3.32.2** Ships carrying dangerous solid bulk cargoes must have a cargo manifest or special list showing the dangerous cargoes on board, together with their locations, in accordance with SOLAS Chapter VII Part A Rule 7.2.2.

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

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

**3.32.4.1** The transportable maximum humidity (TML) certificate of the cargo and the moisture content (MC) certificate or declaration of the cargo, which are issued by the authorized institutions by the authorized administration of the port, should be delivered to the ship related persons by the cargo executive. TML test is performed by a laboratory accredited by the Turkish Accreditation Agency (TS EN ISO / IEC 17025: 2017). The TML certificate contains the TML test result or the test report containing this result. A copy of these documents should be kept by the port authority and the coastal facility.

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

**3.32.4.3** The TML test is carried out within six months before the Group A cargo is loaded onto the ship. If for any reason there is a change in the cargo composition or characteristics, a new test should be performed.

**3.32.4.4** Sampling and testing for MC testing of Group A cargo should be as close as possible to the date the cargo is loaded onto the ship, never more than seven days. If heavy rain or snow falls between the test and loading, the moisture content test should be repeated to confirm that the MC value of the cargo does not exceed the TML value.

**3.32.5** Information on solid bulk cargoes within the scope of the IMSBC Code must be provided to the ship executives in accordance with SOLAS Chapter VI Part A Rule 2 by the cargo executives.

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**3.32.6** The procedures of the General Directorate of Maritime Affairs regarding the transportation and notification of a solid bulk cargo not included in the IMSBC Code should be followed.

## **4 CLASSIFICATION OF DANGEROUS CARGOES, HANDLING, LOADING / UNLOADING, HANDLING, SEPARATION, STACKING AND STORING**

### **4.1 Classification of Dangerous Cargoes**

#### **4.1.1 Types of Dangerous Cargoes**

Dangerous Cargoes based on their origin and characteristics can be classified as follows:

**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 cargoes transported, and if not properly handled, could cause great damage to people, transport units and the environment

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

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

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

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

Prior to stowage, segregation, marking, labeling and storing dangerous cargoes safely, those handling dangerous cargoes must know exactly what hazards these dangerous cargoes 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.

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#### **4.1.2 Classification of Dangerous Cargoes**

The classification is made by the consignor/shipper or by the appropriate competent authority. The IMDG Code classifies dangerous cargoes 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.

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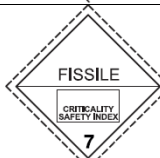



| Class 1   |     |   |
|---|-----|---|
|    | 1   | Explosive substances and articles used to produce explosions or pyrotechnic effects |
| Sub-Classes   |     |   |
|    | 1.1 | Explosives with a mass explosion hazard   |
|    | 1.2 | Explosives with a severe projection hazard  |
|   | 1.3 | Explosives 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  |



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| Class 2   |     |   |
|---|-----|---|
|    | 2.1 | Flammable gas                                 |
|    | 2.2 | Non-Flammable, compressed gas                 |
|    | 2.3 | Toxic or poisonous gas                        |
| Class 3   |     |   |
|   | 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   |     |   |

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|   |                |  |
|---|----------------|--|
|    | <b>6.1</b>     | Toxic substances                             |
|    | <b>6.2</b>     | Infectious substances                        |
| <b>Class 7</b>  |                |  |
|    | <b>I</b>       | Category I – White (symbol 7A)               |
|    | <b>II</b>      | Category II – Yellow (symbol 7B)             |
|   | <b>III</b>     | Category III – Yellow (symbol 7C)            |
|  | <b>Fissile</b> | Criticality safety index label (symbol 7E)   |
| <b>Class 8</b>  |                |  |
|  | <b>-</b>       | Corrosive                                    |
| <b>Class 9</b>  |                |  |
|  | <b>-</b>       | Miscellaneous dangerous compounds            |
|  |                | battery group, one broken and emitting flame |

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## 4.2 Dangerous Cargoes Packing and Packages

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

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

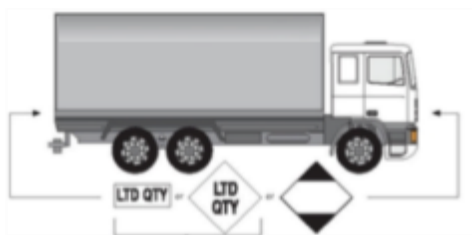
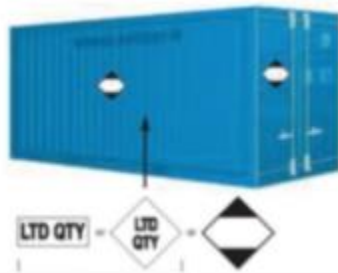
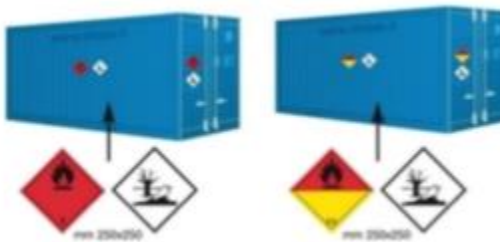
The code specifies clearly that no person may offer to transport dangerous cargoes unless the goods are properly marked, labeled, placarded, described and certified on a document. Those who are transporting dangerous cargoes must indicate the UN Number and proper shipping name clearly on the consignment. 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.



### Marking Of Vehicles Carrying Packaging



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#### Tankers Carrying Dangerous Cargoes



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### **4.3 Dangerous Cargoes 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 cargoes 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 cargoes 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 cargoes 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 cargoes, 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 cargoes 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 the rear




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## Shapes and Colors of Labels and Placards

### Class 1 – Explosives


|   |  |
|---|--|
|  | <p><b>Division 1.1 / 1.2 / 1.3</b><br/> <b>Symbol</b> – explosion in black color<br/> <b>Background</b> – orange color<br/> <b>Text</b> – Explosive (optional)<br/> * * Location of division and/or Compatibility Group<br/> * Location of Compatibility Group or text<br/> <b>Number 1</b> – in the bottom corner</p> |
|  | <p><b>Division 1.4 / 1.5 / 1.6</b><br/> <b>Background</b> – orange color<br/> <b>Subclass numbers</b> – in black color (approximately 30 mm x 5 mm in labels of 100 mm x 100 mm)<br/> * Location of Compatibility Group<br/> <b>Number 1</b> – in the bottom corner</p>  |

### Class 2 – Gases




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

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### Class 3 – Flammable Liquids



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

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



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

|           |                                       |              |         |               |          |
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### Class 5 – Oxidizing Substances or Organic Peroxides

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




### Class 6 – Toxic Substances or Infectious Substances

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




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### Class 7 – Radioactive Materials

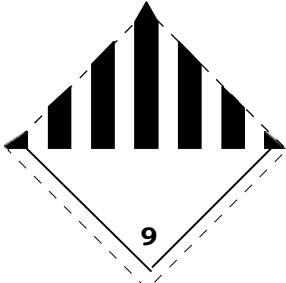
|  |   |
|--|---|
|   | <p><b>Category I – White</b><br/> <b>Symbol</b> – trefoil in black color<br/> <b>Background</b> – white color<br/> <b>Text (mandatory) in black</b> – in the lower half of the label “Radioactive I”, “Contents...”, “Activity...” and “Transport Index” box<br/> <b>Number 7</b> – in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


### Class 8 – Corrosive Substances

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


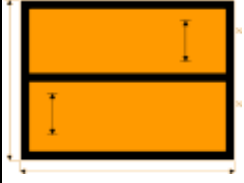
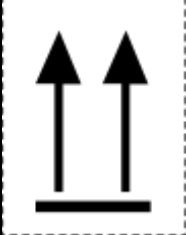
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**Class 9 – Miscellaneous Dangerous Substances and Articles Potentially Damaging to the Environment**

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


|   |   |
|---|---|
|  | <p><b>Symbol</b> – seven vertical bars in black in the upper half<br/> <b>Background</b> – in white color<br/>         (battery group, one broken and emitting flame)<br/> <b>Number 9</b> – In the bottom corner</p> |
|---|---|

**Other labels**

|   |   |
|---|---|
|  | <p>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)</p> |
|  | <p>Orange-colored plates, with hazard-identification number and UN Number</p>   |
|  | <p>Orientation arrows, black or red color</p>   |

|           |   |              |         |               |          |
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### Placards for Marine Pollutants

|   |  |
|---|--|
|  | <p>Packages and cargo transport units containing dangerous substances which are classified by the IMDG Code as “marine pollutants”, must have the markings shown here, which must be durable. They must be placed close to the risk labels or risk placards of the 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.</p> |
|---|--|

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#### **4.4 Packaging and Approval Marking.**

##### **4.4.1 Packing Groups, Classifying Criteria**

The risks presented by dangerous cargoes 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:

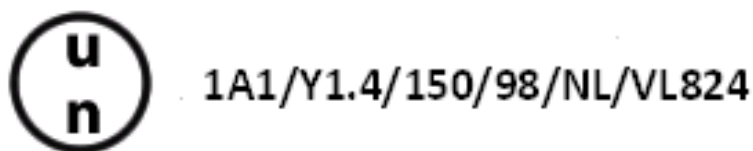
- Must not be affected by the cargo it contains
- Must be strong enough to endure the rough treatment and risks involved in maritime transport
- Must be able to endure rain, wind and sea water
- Must be practical and adequate for the cargo they carry
- Must be in good condition
- Must be correctly marked,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

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

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

##### **4.4.2 UN Packaging and Approval Marking**

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



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## **4.5 Segregation and Separation**

One of the most important aspects of managing the transport of dangerous cargoes 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 to P.E.A.R.

Incompatible hazardous substances must be adequately separated from each other during transport and storage. Improper stowage or segregation of dangerous cargoes 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 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 cargoes 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 cargoes 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 cargoes in ports. Dangerous cargoes which have to be segregated from each other shall not be transported in the same cargo transport unit.

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#### **4.5.2 IMDG Code segregation, stowage and Dangerous Cargoes 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 IMDG Code has grouped together similar chemical properties in the dangerous cargoes list. In the dangerous cargoes 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 cargoes, the stowage conditions for each one of the dangerous cargoes listed can be found. Also, in this column, there is information on stowage related to sleeping, food, solutions and mixtures areas, etc. For example, the product “ALLYL BROMIDE UN No 1099”, column 16 indicates “Category B, far from living quarters.”

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

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### 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   |
|-----------|---|---|
| <b>01</b> | On deck or below deck                                 | On deck or below deck                                     |
| <b>02</b> | On deck or below deck                                 | On deck in closed transport units or under deck in closed |
| <b>03</b> | On deck or below deck                                 | On deck only in closed cargo transport                    |
| <b>04</b> | On deck or below deck                                 | PROHIBITED  |
| <b>05</b> | On deck in closed cargo transport units or under deck | On deck in close cargo transport units or                 |

In brief, the IMDG Code establishes a system whereby dangerous cargoes 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 cargoes correctly on board ships is fundamentally the responsibility of the Ship Planner. Port Terminals are not concerned with planning of the stowage of dangerous cargoes 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 Separation distances and separation terms for hazardous materials applicable storage at storage area

### 4.6.1 Segregation Categories

The IMDG Code defines four segregation terms:

**“Away from”** (the minimum separation between two incompatible goods)

**“Separated from”**

**“Separated by a complete compartment or hold from”**

**“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 cargoes can be found in the code in the following Segregation Table:

|           |                                       |              |         |               |          |
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| CLASS   |               | 1.1<br>1.2<br>1.5 | 1.3<br>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 cargoes; this is to say, in pallets, drums, boxes and crates and other similar packaging. It is not applied to containers carrying dangerous cargoes)



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

|          |  |           |
|----------|--|-----------|
| <b>1</b> | Away from  | 3 meters  |
| <b>2</b> | Separated from   | 6 meters  |
| <b>3</b> | Separated by a complete compartment or hold from                             | 12 meters |
| <b>4</b> | Separated longitudinally by an intervening complete compartment or hold from | 24 meters |
| <b>X</b> | The segregation, if any, is shown in the Dangerous Cargoes 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 Cargoes list previously, to determine the applicable specific segregation provisions.

#### **4.6.2 Segregation within the Cargo Transport Units**

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

#### **4.6.3 Segregation in Port Areas**

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

Circular MSC 1216 of 2008 establishes that containers containing dangerous cargoes 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 cargoes 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.

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| 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-                                | 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 | 4.1 | A   | 0   | 0   | 0 | 0   | A   | 0   | A   | S   | 0   | A | 0 |
| Spontaneously combustible                      | 4.2 | S   | A   | S   | S | A   | 0   | A   | S   | S   | A   | A | 0 |
| Substances which, in contact with water, emit  | 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                               | 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         | 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 cargoes which do not need to be segregated from each other (unless indicated by the individual entry in the numerical list of dangerous cargoes, which must always be checked, requires so)

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

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

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

Cleaning of container and portable tanks which contained dangerous cargoes must be done in a special area, away from those where dangerous cargoes 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 cargoes, all placards and goods risk identification shall be removed from the container.

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#### **4.7 Dangerous Cargoes Documentation**

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

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

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

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

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

##### **4.7.1 Documents required for dispatching Dangerous Cargoes**

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

##### **4.7.1.1 Dangerous Cargoes Transportation Document**

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

- The shipping name or correct technical name (no commercial names will be accepted)

- The Class and Division when applicable. The Class or Division can be included in the risk class number. The compatibility group will also be indicated in goods from class 1; and in the case of gases involving secondary risks, information will be extended to indicate such risks

- The United Nations number preceded by the letters UN

- The packing group when assigned

- The number and types of bundles, as well as the total quantity of dangerous cargoes per volume or mass

The flashpoint for materials having a flashpoint the same or lower than 61 °C

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The subsidiary risks not indicated in the shipping name

When applicable, the goods shall be identified as “Marine Pollutant”

Empty means of containment, which contain the residue of dangerous cargoes shall be described as such, for example, by placing the words “Empty”, “Uncleaned” or “Residue Last Contained” before or after the proper shipping name

For dangerous cargoes in limited quantities, the phrase “Dangerous Cargoes in Limited Quantity” shall be included

For class 5.2 or self reactive substances of class 4.1, the regulation and emergency temperatures

A statement signed in the name of the consignor, saying that the goods are correctly described, classified, packed, marked and labeled and that its conditions are appropriate for transport

Additional information may also be required in certain cases for explosives, radioactive materials, dangerous cargoes transported in a molten state, etc.

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

#### **4.7.2 Dangerous Cargoes Declaration Ordinance**

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

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

The following are examples of dangerous cargoes descriptions:

ALLYL ALCOHOL 6.1, UN 1098 I

FORMIC ACID, 8, UN 1779, II

ACROLEIN STABILIZED, 6.1, UN 1902, G e/e I (3), MARINE POLLUTANT

#### **4.7.3 Container/Vehicle Packing Certificate**

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

The cargo transport unit was clean, dry and apparently fit to receive the goods

Incompatible substances have not been placed into the cargo transport unit (unless this had been specifically authorized by the competent national authority)

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All packages have been externally inspected for damage, and only sound packages have been loaded

All packages have been properly loaded and secured within the cargo transport unit

The cargo transport unit and the packages are properly marked, labeled and placarded

A dangerous cargoes transport document has been received for each dangerous cargoes consignment loaded in the container/vehicle

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

#### **4.7.4 Multimodal Model of the Transport Document**

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

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

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

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## 5 HANDBOOK OF DANGEROUS CARGOES

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

- Dangerous Cargoes classes,
- Packages of dangerous substances,
- Packaging,
- Labels,
- Signs and packaging group,
- Ship and port separation table according to the class of dangerous cargoes,
- Warehouse / port separation distance of dangerous cargoes storage,
- Separation terms,
- Dangerous cargo documentation,
- Loads containing dangerous emergency action flowchart issues,
- Emergency contact information
- Locations and operating instructions of emergency equipment
- Containing the issues of coastal facility rules,

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



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## 6 PROCEDURES FOR THE OPERATION

### 6.1 Prosedure of ships carrying dangerous cargoes safely berthing, loading / unloading, shelter or anchorage during the day and at night

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

**6.1.2** 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:

**6.1.4.1** adequate and safe mooring facilities are provided; and

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



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

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

**6.2.2** Solid bulk dangerous cargoes that, on contact with water, may evolve flammable or toxic 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 handling of dangerous cargoes in adverse weather conditions need careful attention, particularly in respect of wet conditions.

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

**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 by the port authority, before starting any hot work, the responsible person of the company to carry out the hot work together with the responsible 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 adjacent to the work area as well as at each entrance to the work area. The authorization and safety precautions should be readily visible to, and clearly understood by, all persons engaged in the hot work.

**6.3.5** While carrying out hot work it is essential that:

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

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

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

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

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

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#### **6.4 Procedures on fumigation, gas measurement and degasification**

**6.4.1** The fumigation process is only for containers. The Imo sidefield area shall be allocated at the onshore facility for cargo handling units that deal with loads held or to be held subject to fumigation and for gas measurement and degasification operations to be performed at these cargo handling units. Detailed location is indicated in ANNEX-1.

**6.4.2** In the fumigation process, The fumigation area will be surrounded by iron barriers to prevent the access of unauthorized persons and marked warning signs for fumigation. This area shall be monitored by cameras and a checkpoint shall be developed when necessary during the whole period in which cargo handling units held or to be held subject to fumigation are temporarily stored.

**6.4.3** Fumigation operations, and gas measurement and degasification activities intended for cargo handling units fumigated shall be performed by relevant agencies or by organizations authorized by the Contracting Authority. The personnel assigned for the said operations and activities shall be controlled whether they are certified by the relevant agency or the Contracting Authority.

**6.4.4** The agency performing fumigation for the cargo handling unit shall not be the same with the authorized agency conducting risk assessment on the cargo handling unit fumigated, performing gas measurement in case of any risk found and executing active or passive ventilation.

**6.4.5** Any persons who are in charge of causing risk assessment and gas measurement to be performed, the facilities, agencies or organizations where such persons are present as the client and the entities having direct and/or indirect joint venture or interest relations with such agencies or organizations including those responsible for loads shall not be authorized as the agency performing risk assessment and gas measurement.

**6.4.6** Those cargo handling units which contain hazardous gases or are fumigated should be held subject to gas measurement and analysis before delivery to onshore facilities with the issuance of a certificate showing the type of gases analyzed, measurement values, and place, date and time of measurement.

**6.4.7** The gas measurement should be performed for those containers containing hazardous materials to be held subject to inspection by relevant agencies, containers containing loads which are likely to produce hazardous gases as a result of their features and containers fumigated, and the necessary degasification shall be performed in case of any hazardous gases found as a result of the measurement result.

**6.4.8** The relevant Port Authority and the onshore facility shall be notified of those fumigated cargo handling units dealing with loads reaching to the onshore facility by the agency as required pursuant to the applicable legislation.

**6.4.9** The said notification should at least include the following information:

- a) Type of load or material fumigated
- b) Type of fumigant,
- c) Content and concentration of fumigant,
- ç) Place and date of fumigation,
- d) Estimated time of arrival cargo handling unit fumigated to the onshore facility.

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**6.4.10** Any persons assigned for the handling of loads fumigated or other materials shall be trained as required in line with their job descriptions and the work to be performed by them. The said training shall at least include the following subjects.

- a) Information on fumigation operations and fumigants,
- b) Knowledge about the general characteristics of fumigated containers, other cargo handling units or cargo warehouses,
- c) Practices for the unloading of fumigated containers and cargo handling units and the secure unloading of fumigated bulk cargo,
- ç) Information on the measurement of gas content inside fumigated containers and cargo handling units and on hazard limit of gases produced by the effect of fumigants,
- d) Information on the proper use of devices and equipment utilized for gas measurement and degasification,
- e) Use of personal protective equipment, clothing and devices,
- f) Information on potential risks which may arise during the handling of loads or materials fumigated.

**6.4.11** Fumigation warning signs, which are visible on all sides, shall be affixed to the upper side cargo handling units fumigated or to the exterior side cargo warehouses containing fumigated loads/materials.

**6.4.12** Following the ventilation of cargo handling unit or cargo warehouse, the person in charge shall perform gas measurement and issue a certificate of admission which shows the admission to such locations is safe.

**6.4.13** Those cargo handling units or bulk cargo warehouses, which are fumigated, shall be opened under the supervision of the qualified personnel certified by the Contracting Authority to perform gas measurement and/or degasification.

**6.4.14** No fumigation or degasification shall be performed at the onshore facility for bulk cargo available within the vessel's hold. The said processes shall be executed in mooring areas or other marine areas deemed appropriate by the relevant Port Authority.

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## 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)

TDC Deck Cargo Secure Timber handling code 2011

GRAIN Code

IBC Code International Code for the Construction and Equipment of Vessels Carrying Hazardous Chemicals in Bulk

IGC Code International Code for the Construction and Equipment of Vessels Carrying Liquefied Gases in Bulk

**7.1.2** The Operational Division for Hazardous Materials handled by our Port shall develop all records fully and keep the same for submission upon request regarding any hazardous materials

arriving at the port,

shipped from the port,

stored at the port, and

stored at the port on a temporary basis.

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

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

**7.3.1** 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 cargoes 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 cargoes 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 cargoes / vehicle /container and correct the incorrect label brands.

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**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 cargoes 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 cargoes 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 cargoes / vehicle /container and correct the incorrect label brands.

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#### **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 Cargoes Safety Data Sheet (SDS) with the following information must be present with the dangerous cargoes 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 Cargoes to be accepted in the port.



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## **7.5 Procedures for records and statistics of dangerous cargoes.**

**7.5.1** Administration, it is required that a report including the information of dangerous cargoes 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 cargoes handled in our port is carried out by our Trade, operation departments.

**7.5.3** Monthly inventory and control reports of dangerous cargoes 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**

The Quality Management Systems installed in our facility are given below.

- ISO 9001 (Quality Management System)
- ISO 14001 (Environmental Management System)
- ISO 45001 (Occupational Health and Safety Management System)
- ISO 27001 (Information Security Management System)

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## **8 EMERGENCY SITUATION, EMERGENCY PREPAREDNESS AND RESPONSE**

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

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

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

#### **8.1.2.1 The Dangerous Cargoes**

- 8.1.2.1.1 Degree of health hazard
- 8.1.2.1.2 Chemical and physical properties
- 8.1.2.1.3 Amount involved
- 8.1.2.1.4 Containment/control of release
- 8.1.2.1.5 Rate of vapor movement

#### **8.1.2.2 The Population Threatened**

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

#### **8.1.2.3 Weather Conditions**

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

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### 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 cargoes.

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

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

### 8.1.4 Evacuate

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

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

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

### 8.1.5 Shelter In-Place

**8.1.5.1** Shelter In-Place means people should seek shelter inside a building and remain inside until the danger passes. Sheltering in-place is used when evacuating the public would cause greater risk than staying where they are, or when an evacuation cannot be performed. Direct the people inside to close all doors and windows and to shut off all ventilating, heating and cooling systems.

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

**8.1.5.2.1** the vapors are flammable;

**8.1.5.2.2** if it will take a long time for the gas to clear the area; or

**8.1.5.2.3** if buildings cannot be closed tightly.

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

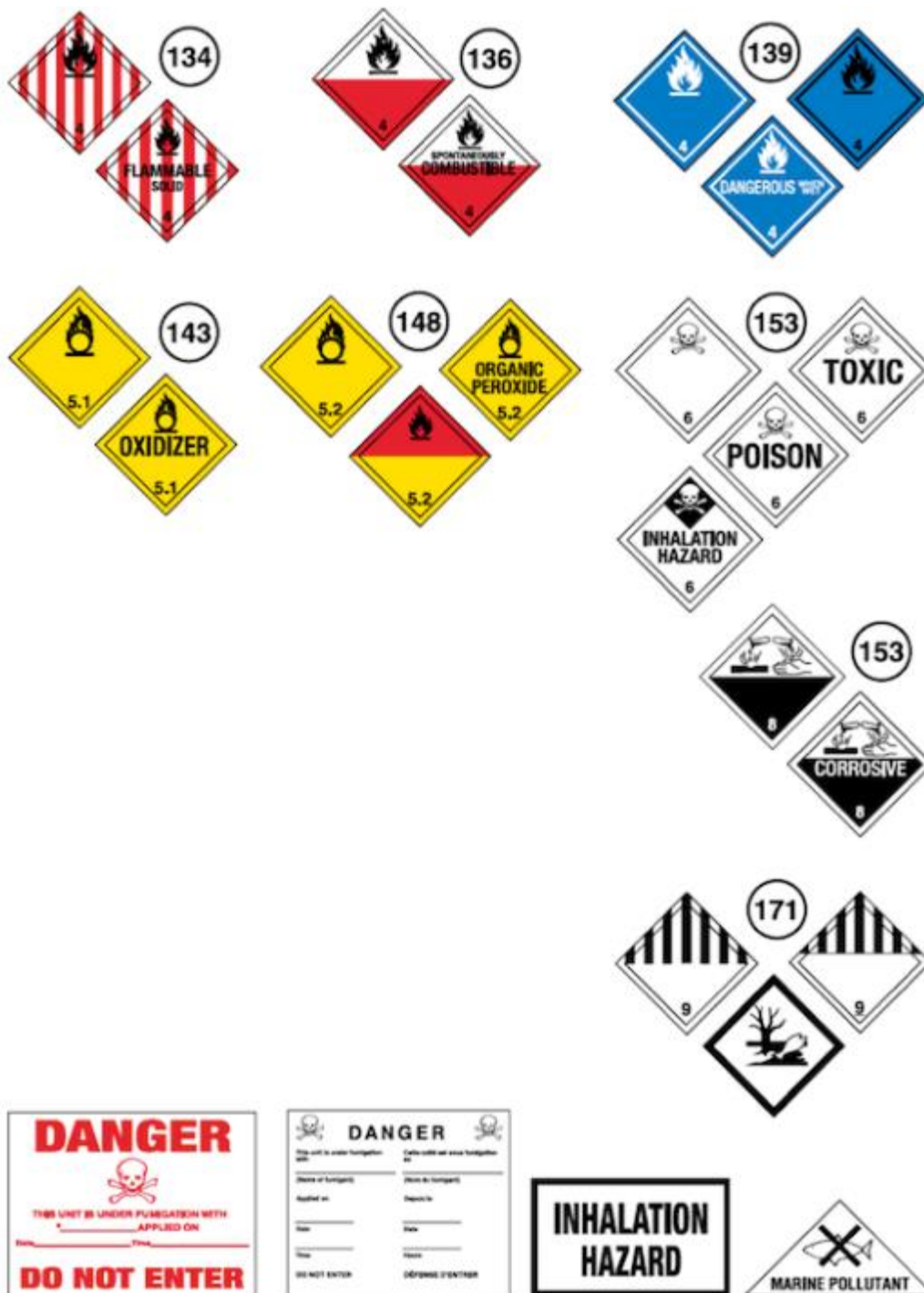
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**8.1.5.3** It is vital to maintain communications with competent persons in side the building so that they are advised about changing conditions. Persons protected-in-place should be warned to stay far from windows because of the danger from glass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

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



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## **8.2 Information on resource, capability and capacity of the coastal facilities regarding to respond to emergencies.**

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

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

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

**8.2.4** Provided two gas detector in the premises to use in case of any emergency situation.



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### 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.).

**8.4.1** 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..

8.4.2 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.

8.4.3 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                        |
|---|---|
| <b>WARNING:</b> Announce the occurrence/probability of emergency and unexpected situations.   | All Personnel and Ship                  |
| <b>CALL FOR HELP:</b> Transfer of the necessary information to relevant organizations   | All Personnel                           |
| <b>RESPONSE:</b> Respond to the Emergency as soon as possible with the right equipment and trained personnel stated under the Plan. | Response teams                          |
| <b>FIRST AID:</b> Administration of the first aid activities until professional support team arrives                                | All Personnel having First Aid Training |
| <b>RESCUE:</b> Saving material, tools, information, documents and other important papers of Port Facility                           | First Aid Personnel                     |
| <b>PROTECTION:</b> Taking recovered materials, tools, information, documents and other important papers under protection            | Security Personnel                      |
| <b>INFORMATION:</b> Sending necessary explanations to the costumer and other persons and Press                                      | Press and Public Relations              |
| <b>REQUIRED NOTICES:</b> Sending of required notifications in accordance with regulations to the public authority                   | Authority                               |



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

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

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## **8.5 The procedures for reporting accidents.**

### **8.5.1 Communication**

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

- Mobile Phones and the satellite phone, if available
- Computers
- Radio
- Siren
- Messengers olarak belirlenmiştir.

**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 8.4 details in full.

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## **8.6 Coordination, support and cooperation method with authorities.**

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

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

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

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

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

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

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

### **8.7.1 Preparation for Emergency Separation System**

**8.7.1.1** All emergencies should be reported to the Port Authority.

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

**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 a warning notice must be published.

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

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

**8.7.1.10** - The adequacy of the Trailers

**8.7.1.11** - The ships's ability to depart with its own power

**8.7.1.11.1** - The availability of a safe place that a ship can or will be taken in an emergency case.

**8.7.1.11.2** - Fire-fighting competence

**8.7.1.11.3** - The proximity of other vessels

**8.7.1.11.4** - Fire Ropes

**8.7.1.12** 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.

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**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.**

**Post Emergency Separation**

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

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

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

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

**8.7.3.5** -Sharing problems, if any, occurred during emergency separation

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

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

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## **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;**

**8.8.3.1** These waste are empty barrels. If occurred, should be left to the contaminated package area in the dump site and Environmental Consulting Firm and Environmental Management System Supervisor contact with contracted and licensed company to send those contaminated packages. In that process, the informations shall be entered to mobile hazardous waste tracking system via to the electronic environmental tracking system of the Ministry of Environment and Urbanization. Required relevant documents are stored in environment folder.

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**8.8.3.2** Contaminated Waste; are used gloves, waste cottons and work uniforms. When occurred, should be collected at the waste barrel which is located at the exit of the production-warehouse department and then moved to the waste area. Within the time specified in the laws and regulation, Environmental Consulting Firm and Environmental Management System Supervisor contact with contracted and licensed company to send those contaminated packages. In that process, the informations shall be entered to mobile hazardous waste tracking system via to the electronic environmental tracking system of the Ministry of Environment and Urbanization. Required relevant documents are stored in environment folder.

## **8.9 Emergency drills and their records.**

### **8.9.1 Implementation of Practices;**

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

### **8.9.2 Practice Scenarios;**

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

### **8.9.3 Emergency Practices which will be performed within the facility;**

**8.9.3.1** Have to be indicated within annual training plans.

**8.9.3.2** May be planned as local or general responses,

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

**8.9.3.4** Practices can be performed with or without notices.

**8.9.3.5** Practices are based upon different emergency scenarios.

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

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

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## **8.10 Information on fire protection systems.**

**8.10.1** Emergency and fire equipment is given as follows:

Fire hydrants, Fire extinguishers, Fire cabinets and Fire hoses, On-site fire alarm detectors, Electrical and diesel fire pumps

The fire inventory is as in the Emergency Plan.

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

### **8.11.1 Fire-Protection Water Tanks and Fire-Protection Water**

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

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

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

### **8.11.2 Fire-Protection Water Pumps**

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

**8.11.2.1** 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.

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

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

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

**8.11.2.5** After performing aforesaid preliminaries and checks, pumps are operated by pressing the drive switches. During the operation, electric motor voltage and the ampere driven must be checked from time to time. If the ampere driven is high at normal operation, a troubleshooting is needed. There may be a mechanical



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breakdown or force at the pump or motor. Substandard voltages may be hazardous for motor.

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

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

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

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

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

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

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

### **8.11.3 Sprinkler System**

**8.11.3.1** If sprinkler systems are installed in the facility, the most important point to be considered and the maintenance to be done in the sprinkler installation is to prevent the sprinkler heads from clogging. To ensure this, the sprinkler must be operated in accordance with the standards/legislation and it must be ensured that it is in working order. Sufficient sprinkler heads should be kept as spares in each facility, and in case of a failure, they should be replaced with new ones and the defective ones should be repaired and backed up.

### **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 (if they exist) 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.

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

## **8.11.5 Portable Extinguishers**

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

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

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

## **8.11.6 Protection against freezing.**

**8.11.6.1** Protection of Generators

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

**8.11.6.2** Protection fire-protection water pumps.

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

**8.11.6.3** Protecting of fire-protection distribution pipes.

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

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

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

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

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

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

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

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### 8.13 Other risk control equipment.

Required risk control equipment will be provided as a result of risk analyzes made within the scope of occupational safety.

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## 9 SAFETY AND HEALTH AT WORK MEASURES

### 9.1 Occupational health and safety measures.

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

#### 9.1.1 Risk assessment

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

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

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

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

**9.1.1.2.3** Duration, type and level of contagion.

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

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

**9.1.1.2.6** . Effect of preventive measures to be taken or taken.

**9.1.1.2.7** If available, results of last health surveillance.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

**9.1.1.10** Protective systems those were provided for protecting work equipment and employees, are designed, produced and supplied in accordance with legislation in force in terms of health and safety. Harbor Structure Management provides all equipment and protective systems to be used at explosive places, to be in accordance with Regulation About Equipment an Protective Systems Used at Probable Explosive Places (2014/34/AB) published at 29758 repeated numbered and 30.06.2016 dated official gazette

**9.1.1.11** Arrangements to reduce effect of explosion pressure are made.

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

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

## **9.1.2 Emergencies**

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

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

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

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

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,

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



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### **9.1.3 Workers' education and informing them**

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

**9.1.3.1.1** Information gained as a result of the risk evaluation.

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

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

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

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

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

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

### Personal Protective Devices of the Response Teams

#### Level A

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

Positive pressured Tube Breathing Apparatus– SCBA

Protective clothing against the chemicals

Gloves which are chemical proof from inside.

Gloves which are chemical proof from outside.

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

Thermal underwear, long sleeve and cuffed

Hard Cover

Long sleeved

Double sided wireless connection (No spreading sparks)

#### Level B

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

Positive pressured Tube Breathing Apparatus– SCBA

Protective clothing against the chemicals

Gloves which are chemical proof from inside.

Gloves which are chemical proof from outside.

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

Hard Cover

Double sided wireless connection (No spreading sparks)

Face mask

#### Level C

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

→ 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. .

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### **9.3 Confined space entry permit measures and procedures**

The company is responsible for determining the necessary procedures for the safe entry of personnel into confined spaces on board. The process of requesting, preparing, issuing and documenting permits to enter a confined space should be controlled by procedures in the ship's Secure Management System (SMS). It is the captain's responsibility to ensure that published procedures for entering a confined space are followed.

#### **9.3.1 Risk assessment**

In addition to the risk assessment done when compiling a list of confined spaces on a ship, another risk assessment should be carried out on site by a competent person before any entry into a confined space is made. Such an assessment should take into account various factors such as the final cargo carried, the ventilation of the space, and should be done to determine whether there is any potential hazard at the space. Until it is determined otherwise, the assessment should be made with the assumption that the area to be entered is dangerous.

#### **9.3.2 Entry permit**

No entry should be made into a confined space unless authorized by the captain or a designated responsible person (who is authorized to allow entry to a confined space and has sufficient knowledge of the procedures to be established and followed on board to ensure that space is appropriate). Before entering a confined space, a " Entry permit" system must be in place. The captain or the designated responsible person authorizing the entry must ensure that all aspects of the " Entry permit " are followed and that regular checks are made to continually monitor the area before authorizing entry.

#### **9.3.3 Pre-entry checks in confined spaces**

##### **9.3.3.1 Ventilation of the environment before and after entering closed spaces**

Ventilation should be carried out with as many openings as possible, preferably at least one opening at each end of the relevant space.

Ventilation should ideally be done at least 24 hours before entry; however, this may not always be the case. It will not be possible to ventilate before the entrance, especially if there is an unplanned entrance to the closed spaces. In such cases, efforts should be made to ventilate the area for the maximum amount of time possible to ensure the area is safe for entry. As long as the work continues in the closed space, the ventilation should continue continuously.

If the ventilation system fails, all persons in the confined space must evacuate the area immediately. If there is a mechanical ventilation or fan facility on the ship, it is preferred to use these mechanical ventilation or fans as opposed to natural ventilation. Natural ventilation is most effective for allowing airflow in the area concerned with at least two accesses open (preferably at both ends). It is important to note that whether

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mechanical or natural ventilation is used, the air intake should be located in an area that will only draw fresh air. All ventilated gases should be discharged away from the area to avoid polluting the environment.

Ensuring area security: Access to a confined space must be secured against accidental entry. This is especially important when a door or other access is left open to allow natural ventilation. An open door or access may suggest that the area is safe to enter, mechanical barriers and/or warning signs should be placed at the entrance to prevent this. If possible, an attendant should be left at the entrance.

### **9.3.3.2 Testing the indoor atmosphere**

Before and after entry, and at regular intervals until all work has been completed, the atmosphere of the space should be tested using properly calibrated instruments. They should only be used by persons specially trained in the use of the equipment. Forced ventilation should be stopped during the test (preferably 10 minutes before the test). Where appropriate, space testing should be performed at as many different levels as possible to obtain a representative sample of the atmosphere in the space. In some cases, it may be difficult to test the atmosphere indoors (for example, on the bottom landing of a staircase) without entering the cavity. The use of flexible hoses or fixed sampling lines that reach remote areas within the confined space can ensure safe testing without having to enter the area. If the atmosphere in a confined space is classified as unsafe or suspicious after a risk assessment, the area should only be entered when there are no practical alternatives. This should only be for further testing, basic operation, life safety or the safety of the ship. Respirators should always be worn during such entry and the number of people entering the space should be kept to the minimum necessary to perform the job.

### **9.3.3.3 Availability enclosed of adequate first aid supplies and life-saving equipment at the entrance of the space**

If the personnel in the confined space encounter a difficult situation and need to be rescued, the intervention should be done as soon as possible, since the survival time in such situations is very limited. Safety equipment must be readily available at the site entrance to speed up a rescue.

Required equipment may be, but not limited to, the following:

- SCBA (Self-contained Breathing Appliance) with a fully charged spare cylinder,
- Lifeline and rescue harness. The lifeline must be of sufficient length and strength and be detachable in case of entanglement,
- Torches,
- Fire extinguisher,
- Means (e.g., stretcher) to lift a disabled person, and
- Portable atmosphere testers.

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#### **9.3.3.4 Availability of experienced personnel at the entrance of the closed space**

It is very important to ensure that a staff member stays at the entrance of the closed area. Staff at the entrance of the site; A person who is appropriately trained within the security management system, watches over those entering the confined space, maintains communication with those inside the area, and initiates emergency procedures in the event of an incident. This personnel should not leave the place until all people in the closed area have exited and the environment has been made safe. If he has to leave due to an essential situation, he should leave by assigning someone else instead.

#### **9.3.3.5 Control of personal equipment**

Required protective equipment will differ depending on the situation. This is because it depends on the risk assessment, which will be different for each confined space entry.

Basic equipment (all to be of approved type) may include:

- Helmet, chin strap,
- Gloves,
- Protective glasses,
- Ear protectors,
- Suitable lighting,
- Protective shoes,
- Overalls (protective clothing) and,
- An ELSA (Emergency Life Support Apparatus), EEBD (Emergency Escape Breathing Apparatus), or other emergency escape breathing apparatus.

Entry permit control: For each confined space entry, an "Entry Permit" record must be filled. This record is for both control purposes and serves as proof that all necessary precautions have been properly implemented and are sufficient for the intended entry. A copy of the permit must be placed outside the point of entry. Permission should be as painstaking and accurate as possible. Upon expiration of the permit, all persons must leave the area and not re-enter until another permit has been granted. The consent must be completed and signed by all parties involved. A copy of the permit should be hung at the entrance of the section so that any restrictions are placed on the activities allowed inside the section and the personnel are informed of the measures taken while entering the section.

The following items detail the broader elements that a "Entry permit" should cover. If necessary, additional special items can be added to the entered field:

1. Location, type of work, detailed information of the crew involved, responsible person, officer and validity period of the permit (this period should never exceed 8 hours),
2. The nature and results of the pre-tests and measures taken to minimize the risks and make the work safe,

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3. Details of ventilation and confirmation that continuous ventilation will be maintained,
4. The results of the atmosphere test,
5. Details of first aid and life-saving equipment installed and
6. Confirmation that all personnel are wearing the correct types of approved personal safety equipment and that relevant personnel are competent in their use, including confirmation of testing of equipment (eg, respirator).

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## 10 OTHER POINT

### 10.1 Validity of the Hazardous Substances Compliance Certificate.



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ULAŞTIRMA VE ALTYAPI BAKANLIĞI  
DENİZCİLİK GENEL MÜDÜRLÜĞÜ



#### KIYI TESİSİ TEHLİKELİ MADDE UYGUNLUK BELGESİ

|                         |   |
|-------------------------|---|
| Belge No                | BKN.811648.KTTMUB.379                             |
| Kıyı Tesisin Adı        | ASSAN PORT İSKENDERUN                             |
| Kıyı Tesisin Adresi     | Organize Sanayi Bölgesi Sarıseki İSKENDERUN/HATAY |
| Kıyı Tesisin İşleticisi | ASSAN LİMAN İŞLETMELERİ ANONİM ŞİRKETİ            |
| Veriliş Tarihi          | 09.11.2020  |

Tehlikeli Maddelerin Deniz Yoluyla Taşınması Hakkında Yönetmelik hükümlerine dayanılarak düzenlenmiş bu belgeye göre yukarıda adı geçen kıyı tesisi ; aşağıdaki üzeri çizilmemiş tehlikeli yükleri elleçleyebilir ve/veya geçici depolayabilir.

\*Enfeksiyöz-Yükler-

\* Fumigasyon Yapılmış Yükler

\*Hurda-Yükler-

\* Paketli Tehlikeli Yükler

\* Patlayıcı Yükler

\* Radyoaktif-Yükler-

\*Tehlikeli Katı Dökme Yükler

\*Tehlikeli Sıvı-Dökme-Yükler (Sıvılaştırılmış Gaz (LPG/LNG vb.) ve Sıkıştırılmış Doğal Gaz (CNG)).

\*Tehlikeli Sıvı-Dökme-Yükler (Kimyasal ve Benzeri Sıvı Haldeki Tehlikeli Dökme Yükler) —

\*Tehlikeli Sıvı-Dökme-Yükler (Petroil ve Petroil Ürünleri) —

Bu Belge, Bakanlığımız tarafından Kıyı Tesis İşletme İznî/Kıyı Tesis Geçici İşletme İznî Belgesinde belirtilen geçerlilik süresiyle aynı süre kadar geçerlidir.

Bu belgenin doğruluğu <https://www.turkiye.gov.tr/belge-dogrulama> adresinde veya mobil cihazlarınıza yükleyebileceğiniz e-Devlet Kapısı'na ait Barkodlu Belge Doğrulama uygulaması vasıtası ile yandaki karekod okutularak kontrol edilebilir.



### 10.2 Assigned Duties of Dangerous Goods Safety Adviser

Services of Dangerous Goods Safety Adviser provided by Ayemis, who has License of Authorization for Dangerous Goods Safety Adviser(TMGDK). The company informations are given below:

*Ayemis Mühendislik Bilişim Enerji Dan. Tic. Ltd. Şti.*

*Address: Kaynarca Mah. Aydınli Yolu Cad. No:137/46 Pendik İstanbul*

*Tax Number: 1190579353*

*Tax Administration: Pendik*

*Tel: İstanbul: 0216 375 76 66*

*Ankara: 0312 231 31 92 and 0530 567 62 89*

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ULAŞTIRMA HİZMETLERİ DÜZENLEME GENEL MÜDÜRLÜĞÜ  
YETKİ BELGESİ




| YETKİ BELGESİNİN                           |   |                       |
|--|---|-----------------------|
| VERİLİŞ TARİHİ                             | GEÇERLİLİK TARİHİ   | BELGE NUMARASI        |
| 18/10/2017                                 | 18/10/2022  | BKN.U-NET.TMGDK.34.32 |
| YETKİ BELGESİ SAHİBİ ( U-NET NO = 997143 ) |   |                       |
| TİCARİ ÜNVANI                              | AYEMİS MÜHENDİSLİK BİLİŞİM ENERJİ DANIŞMANLIK TİCARET LIMITED ŞİRKETİ       |                       |
| KISA ÜNVANI                                | -   |                       |
| ADRES                                      | Kaynarca Mah. Aydınli Yolu Cad. (Mavi Kule) No: 137/46<br>PENDİK / İSTANBUL |                       |
| TİCARET SİCİL NO                           | 99619-5   |                       |
| VERGİ DAİRESİ / NO                         | PENDİK / 1190579353   |                       |

| BELGE TÜRÜ |
|------------|
| TMGDK      |

Bu belge, Tehlikeli Madde Güvenlik Danışmanlığı Kuruluşlarının Yetkilendirilmesi Hakkında Yönerge'nin 7 inci maddesinin 2 inci fıkrası kapsamında düzenlenmiştir.

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Picture 1. License of Authorization for Dangerous Goods Safety Adviser(TM GDK)

Duties and responsibilities of Dangerous Goods Safety Adviser(DGSA), who helps the undertaking in order to ensure safe handling of hazardous materials without harming human health, other living things and the environment, are identified below:

- Monitoring compliance with the international agreements(ADR/IMDG Code)and related regulations governing the carriage of dangerous cargoes
- Advising the undertaking according to terms of ADR/IMDG Code on the carriage of dangerous cargoes
- Preparing an annual report on the undertaking's activities in the carriage of dangerous cargoes in accordance with the form prescribed by the Administration within the first three months of the year, and such annual reports submitted to the management of undertaking and served TMGDK in order to send it through the website, [www.turkiye.gov.tr](http://www.turkiye.gov.tr), to the Administration at their request
- The procedures for compliance with the requirements in ADR/IMDG Code governing the identification of dangerous cargoes being transported



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- d) Guiding the undertaking when purchasing means of transport, considering the undertaking's practice with the dangerous cargoes being transported,
- e) Determining the procedures for checking the equipment used in connection with the carriage, loading and unloading of dangerous cargoes
- f) Providing the proper training of the undertaking's employees with regards to their field of work, including on the changes to the national and international regulations, and the maintenance of records of such training
- g) The preparation of the proper emergency procedures to be implemented in the event of any accident or incident that may affect safety during the carriage, loading or unloading of dangerous cargoes, and made to ensure of periodical practices with the employees about such procedures and maintenance of records of such practices
- ğ) The implementation of appropriate measures to avoid the recurrence of accidents or serious infringements
- h) Maintenance of the account taken of the legal prescriptions and special requirements associated with the carriage of dangerous cargoes in the choice and use and employ of sub-contractors or third parties
- ı) Providing that employees involved in the carriage, loading or unloading of dangerous cargoes have detailed operational procedures and instructions
- i) The introduction of measures to increase awareness of the employees to the risks inherent in the carriage, loading or unloading of dangerous cargoes
- j) The preparation of verification procedures to ensure the presence on board the means of transport of the documents and safety equipment which must accompany transport
- k) The preparation of the security plan indicated in ADR Section 1.10.3.2 and maintain of application of such plan
- l) Record all kinds of activities including training, inspection and control on activities by specifying the date and time, and maintenance of records of such activities for 5 years and and such records submitted to the management of undertaking and served TMGDK in order to submit it to the Administration at their request
- n) Provide the stopping of the work until the danger is removed in case of a related danger in the business where the consultancy service is provided, initiate the work with its own approval even when the danger is removed and notify the management of the

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business where the consultancy service is provided, served TMGDK and legal authorities of any steps in the process until the danger is removed in written

o) Establish procedures for packaging, labeling, marking and loading of the dangerous cargoes on the transport vehicle in accordance with the ADR / IMDG Code provisions DGSA, who is in charge of the operation, collects information about the accident during transportation, loading or unloading in case of a damage to the life, the property and the environment, and prepares an accident report to the management of the business where the consultancy service is provided, and served TMGDK. Such report prepared by DGSA is submitted to the Administration through the website, [www.turkiye.gov.tr](http://www.turkiye.gov.tr), by the management of undertaking or served TMGDK within a month. This report does not replace the report required by the business administration under international or national legislation.

p)To prepare quarterly reports regarding the responsibilities set forth in the Regulation on the Transport of Dangerous Cargoes by Sea and Loading Safety and to submit this report to the Administration.

DGSA to serve should have current certificate of ADR and IMDG Code.

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**10.3 Matters for carriers of the hazardous substances arriving/leaving coastal facility by land (matters on required documents that must be available in the road vehicle at the entrance/exit of port or coastal facility area, equipment and tools required for this vehicles, speed limits in the port area etc.).**

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

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

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

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

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

**10.3.2 Necessary certificates**

Hazardous Cargo Declaration, Hazardous Cargo Transport Dispatch, Multi Mode Hazardous Cargo Form, Hazardous Cargo Manifest, Packaging and Container/Vehicle Loading Certificate, Safety Data Sheet, carrying certificate showing exemption for the shipping under ADR/RID/IMDG Code 3.4 and 3.5, SRC 5 certificate appropriate and valid for transport with regard to shipping under ADR, ADR written instruction, Vehicle Conformity Certificate appropriate and valid for carriage, transport document, CSC Certificate for the shipping made with container, the certificate showing eligibility of the tree in case of using heat treated tree with regard to transport or loading safety and cargo transport unit (CTU), cargo safety certificate signifying that container or the cargos in vehicle are secured within the scope of IMDG Code,

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

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

**10.3.3 Speed Limit in Port Facility**

Speed limit in our port facility is 20 km.

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

**10.4.1 Arrival by Sea**

**10.4.1.1** Packaged hazardous cargos:

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

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

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

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

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

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

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

**10.4.1.2** Hazardous bulk cargo (liquid or solid);

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

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

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

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

**10.4.1.2.5** The unitized carries which enter in a solid cargo terminal should also specify qualification of the last three cargos and where applicable, flash points and current situation of tank/cargo holes (i.e. if they are gasless)

In the event of occurrence of any inconvenient danger, situation of hazardous cargos and taking under protection of cargo and transport system, the equipment related to the cargo shipped bulkly and a defect known in instrumentation and

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

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**10.4.1.3.7** The additional information to be presented to port administration before hazardous cargos are brought port area or taken out of port area may be those indicated in ISPS Code Chapter B.

Before the dangerous cargoes arrive at the coastal facility, our coastal facility is informed by cargo respective party about the dangerous cargoes that come to the coastal facility by road or rail. The notices should include the following information and documents:

- a) The title and contact information of the cargo responsible,
- b) Proper shipment name,
- c) UN Number
- d) Hazard class and, if applicable, secondary risk,
- e) Packaging group (if any)
- f) Type and number of packages,
- g) Net and gross weight or volume (kg / lt),
- h) Container number,
- i) Verified gross weight information of the full containers to be exported,
- j) Container / vehicle packaging certificate,
- k) License plate or wagon number,
- l) Safety data sheet related to the cargo.

## **10.4.2 Departure by Sea**

**10.4.2.1** Packaged hazardous cargos:

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

**10.4.2.1.2** Suitable Dispatch name of hazardous cargos, UN number, class for class 1 or established part of products, conformity group letter (where applicable), sub-risk if any, parcel number and type, packaging group, flash point interval (where applicable), amount and the additional information necessitated by IMDG Code chapter 5.4;

**10.4.2.1.3** stacking place on board of hazardous cargos.

**10.4.2.2** hazardous bulk cargos (liquid or solid):

**10.4.2.2.1** name of ship and IMO number of ship, agency and estimated time of departure (ETD) as necessitated by regulatory boards;

**10.4.2.2.2** a list showing product name of hazardous bulk cargos and other information necessitated by related IMO Code

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

**10.4.2.2.4** Stacking on board or place of hazardous cargos.

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**10.5 Additional points will be added by the port facility.**

#### **10.5.1 Training**

##### **10.5.1.1 Management**

**10.5.2.1** Management should ensure that all shipboard and shore personnel involved in the transport or handling of dangerous cargoes or in the supervision thereof are adequately trained, commensurate with their responsibilities within their organization.

**10.5.2.2** 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.

##### **10.5.1.2 Personnel (cargo interests, port operators and ships)**

**10.5.1.2.1** Every person engaged in the transport or handling of dangerous cargoes should receive training on the safe transport and handling of dangerous cargoes, commensurate with his responsibilities.

##### **10.5.1.3 Shore-based personnel**

Should receive general awareness/familiarization training, function-specific training and safety training

#### **10.5.2 Training content**

##### **10.5.2.1 General awareness/familiarization training**

**10.5.2.1.1** Every person should receive training on the safe transport and handling of dangerous cargoes, commensurate with his duties. The training should be designed to provide familiarity with the general hazards of relevant dangerous cargoes and the legal requirements. Such training should include a description of the types and classes of dangerous cargoes; marking, labelling and placarding, packing, segregation and compatibility requirements; a description of the purpose and content of the transport documents; and a description of available emergency response documents.

##### **10.5.2.2 Function-specific training**

**10.5.2.2.1** Every person should receive detailed training concerning specific requirements for the

**10.5.2.2.2** transport and handling of dangerous cargoes which are applicable to the function that he performs.

##### **10.5.2.3 Safety training**

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

**10.5.2.3.2** Such training should be provided or verified upon employment in a position involving the transport or handling of dangerous cargoes and should be periodically supplemented with retraining, as deemed appropriate by the regulatory authority.

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

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## **10.6 Accident Prevention Policy**

As ASSAN PORT MANAGEMENT management, we are aware of that the operations realized in our port have the potential that will lead to accidents inherently. However, we believe all accidents may be prevented. Therefore, we undertake to manage operation ideally to protect subcontractors, visitors, neighbours and environment at the highest level through preventing accidents.

With the aim of preventing accidents and mitigate the effects in the direction of ASSAN PORT MANAGEMENT Quality Management Systems, as ASSANPORT, we will apply the POLICIES about

- taking high level security measures for human and environment around Port facility and procuring all resources for this purpose,
- making the risk evaluation based on quantitative analysis related to ordinary and extraordinary operation and keeping these evaluations updated continuously with the purpose of determining and assessing accidents
- having performed the arrangements covering maintenance, repair and temporary stopping related to detected risks and preparation of requisite procedures
- following technological development and providing support required for continuous improving of security measures in facilities with the aim of preventing accidents and mitigate the effects
- making necessary arrangements required for design of new facility, process along with planned changes and having performed risk evaluations absolutely before realization and assessing acceptability
- determining emergencies that will be detected before with systematic analysis, preparing emergency plans for these emergencies and reviewing with drills following realization of audit regularly
- tracking performance of system within the framework of procedures to evaluate conformity to the targets identified with Quality Management Systems, in case of failing to provide conformity, searching corrective activities
- evaluating efficiency and conformity of Quality Management Systems periodically and systematically, documentation, certification, performing review by us as top management and giving support for continuous improvement of Quality Management Systems
- employing the personnel who have knowledge, education and experience convenient for the positions that will affect safety and security of operational job processes within organization,
- ensuring that our employees in charge develop themselves constantly by means of giving trainings,
- adhering to national and international law, regulation, bylaws and standards
- ensuring health and securities of employees, contractors, visitors and neighbours and protection of environment whereby preventing accidents and eliminating the effects systematically through taking necessary measures and searching potential incompatibilities with policy

**AS MANAGEMENT AND ALL EMPLOYEES.**



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### **10.7 Hot Work Procedure**

1. No permit is given for the hot works to be done aboard ship. However, in necessary cases, after taking permits in the direction of legal legislations by ship agency, it will be realized under the control of port facility.
2. Before starting to hot works and procedures in our port facility, written permit regarding applicability of hot works in question will be taken from port presidency. With abovementioned permit, the place where hot work and procedures will be performed and related details and additionally safety measures to be applied will be specified on Hot work form.
3. Hot Work Form covers the following.
  - a) with the aim of being sure about that the areas on which work is to be done is no burning and/or explosive environment and insufficient in terms of ventilation and oxygen, auditing frequently the area and adjacent areas where work is to be carried out including the tests applied by accredited testing organizations,
  - b) removing hazardous cargos and other combustible materials from working area and adjacent areas (lime, sludge, residue and other combustible materials are included in the substances to be removed from the area in question)
  - c) protecting efficiently against accidental ignition of combustible building materials (i.e., girders, wooden partitions, floors, doors, wall and ceiling coatings)
  - ç) sealing and ensuring impermeability of open pipes, pipe transitions, valves, joints, gapes and open parts with the purpose of preventing spreading of flame, spark and hot particles from working areas to adjacent areas or other areas
4. warrant of the hot work to be done and a plate on which the safety measures to be taken are written will be hanged in working area and entrances of all working area. Warrant and safety measures should be visible easily and will be understandable clearly by everyone who will conduct hot works.
5. While doing hot works, attention should be paid to the following matters:
  - a) controls will be carried out with the aim of confirming that no current condition have changed in working environment.
  - b) While hot works are performed, at least one fire tube or other fire extinguishing equipment shall be made ready, so as to be used instantly with their all apparatus in a venue to be reached easily.
6. In the course of hot work and procedures, when the works in question are completed and during enough time following completion, efficient fire control shall be made in the area on which hot work is conducted and the adjacent areas where hazard will emerge owing to heat transfer.
7. Necessity of applying for the document titled "International Safety Guide for Oil Tankers and Terminals (ISGOTT)" particularly for additional more detailed information and procedures pertaining to hot works and procedures will be taken into consideration every time.



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| <b>Risk Assessment</b>   |  |  |  |  |      |     |  |              |  |  |  |  |     |     |     |      |     |            |                |   |   |   |   |   |        |   |   |   |   |   |          |   |   |   |   |   |                 |   |   |   |   |   |
|--|--|--|--|--|------|-----|--|--------------|--|--|--|--|-----|-----|-----|------|-----|------------|----------------|---|---|---|---|---|--------|---|---|---|---|---|----------|---|---|---|---|---|-----------------|---|---|---|---|---|
| <b>Location of hot work:</b><br>Area / Location: _____<br>Special access restrictions (due to the task involving a specific welding type or the location being a hazardous area, confined space, etc): _____   |  |  |  |  |      |     |  |              |  |  |  |  |     |     |     |      |     |            |                |   |   |   |   |   |        |   |   |   |   |   |          |   |   |   |   |   |                 |   |   |   |   |   |
| <b>Reason for hot work:</b><br>Work activity description: _____<br>Likely ignition source type(s): <input type="checkbox"/> Flame (welding, soldering, brazing, etc) <input type="checkbox"/> Spark or slag (grinding, cutting, friction tools, welding, etc) <input type="checkbox"/> Hot Object (metal surface, plate, etc) <input type="checkbox"/> Other: _____  |  |  |  |  |      |     |  |              |  |  |  |  |     |     |     |      |     |            |                |   |   |   |   |   |        |   |   |   |   |   |          |   |   |   |   |   |                 |   |   |   |   |   |
| <b>Hazard identification, risk analysis and control measure selection:</b> <span style="float: right;">Add an additional page if the space below is insufficient.</span>   |  |  |  |  |      |     |  |              |  |  |  |  |     |     |     |      |     |            |                |   |   |   |   |   |        |   |   |   |   |   |          |   |   |   |   |   |                 |   |   |   |   |   |
| <b>Specific Hot Work Issues:</b><br>(tick appropriate)   |  | <input type="checkbox"/> The hot work is to be solely undertaken by a contracted party personnel and a detailed work method statement / risk assessment has been previously prepared, reviewed by is attached to this Form.              |  | Attach documentation & proceed to Section 2 on the following page.   |      |     |  |              |  |  |  |  |     |     |     |      |     |            |                |   |   |   |   |   |        |   |   |   |   |   |          |   |   |   |   |   |                 |   |   |   |   |   |
|  |  | <input type="checkbox"/> The hot work is to be solely undertaken by personnel as per the specific hot work issues detailed below.  |  | Complete the Risk Assessment below.  |      |     |  |              |  |  |  |  |     |     |     |      |     |            |                |   |   |   |   |   |        |   |   |   |   |   |          |   |   |   |   |   |                 |   |   |   |   |   |
| <b>Risk Assessment Guide</b>   |  |  |  |  |      |     |  |              |  |  |  |  |     |     |     |      |     |            |                |   |   |   |   |   |        |   |   |   |   |   |          |   |   |   |   |   |                 |   |   |   |   |   |
| <b>Step 1 – Consider Consequences</b>  |  | <b>Step 2 – Consider Likelihood</b>  |  | <b>Step 3 – Calculate Risk</b>   |      |     |  |              |  |  |  |  |     |     |     |      |     |            |                |   |   |   |   |   |        |   |   |   |   |   |          |   |   |   |   |   |                 |   |   |   |   |   |
| What are the consequences of this hazard occurring?<br>Consider what is the most probable consequence (below) with respect to this work hazard.  |  | What is the likelihood (below) of the hazard consequence in Step 1 occurring.  |  | 1. Take Step 1 rating and select the correct column.<br>2. Take Step 2 rating and select the correct line.<br>3. Use the risk score where the two ratings cross on the matrix below.<br>H = High, S = Serious, M = Medium, L = Low   |      |     |  |              |  |  |  |  |     |     |     |      |     |            |                |   |   |   |   |   |        |   |   |   |   |   |          |   |   |   |   |   |                 |   |   |   |   |   |
| Extreme: Multiple fatalities or permanent injuries<br>Critical: Single fatality or permanent injury<br>Major: Medical treatment or lost time injury<br>Minor: First aid treatment<br>Insignificant: Incident or near miss – no treatment   |  | Almost Certain: Is expected to occur in most circumstances<br>Likely: Will probably occur at least once<br>Possible: Event might occur at some time<br>Unlikely / Rare: Event not expected to occur or only in exceptional circumstances |  | <table border="1"> <tr> <th colspan="2" rowspan="2"></th> <th colspan="5">Consequences</th> </tr> <tr> <th>Ins</th> <th>Min</th> <th>Maj</th> <th>Crit</th> <th>Ext</th> </tr> <tr> <th rowspan="4">Likelihood</th> <th>Almost Certain</th> <td>M</td> <td>S</td> <td>H</td> <td>H</td> <td>H</td> </tr> <tr> <th>Likely</th> <td>M</td> <td>M</td> <td>S</td> <td>H</td> <td>H</td> </tr> <tr> <th>Possible</th> <td>L</td> <td>M</td> <td>M</td> <td>S</td> <td>S</td> </tr> <tr> <th>Unlikely / Rare</th> <td>L</td> <td>L</td> <td>M</td> <td>M</td> <td>S</td> </tr> </table> |      |     |  | Consequences |  |  |  |  | Ins | Min | Maj | Crit | Ext | Likelihood | Almost Certain | M | S | H | H | H | Likely | M | M | S | H | H | Possible | L | M | M | S | S | Unlikely / Rare | L | L | M | M | S |
|  |  | Consequences   |  |  |      |     |  |              |  |  |  |  |     |     |     |      |     |            |                |   |   |   |   |   |        |   |   |   |   |   |          |   |   |   |   |   |                 |   |   |   |   |   |
|  |  | Ins  | Min  | Maj  | Crit | Ext |  |              |  |  |  |  |     |     |     |      |     |            |                |   |   |   |   |   |        |   |   |   |   |   |          |   |   |   |   |   |                 |   |   |   |   |   |
| Likelihood   | Almost Certain   | M  | S  | H  | H    | H   |  |              |  |  |  |  |     |     |     |      |     |            |                |   |   |   |   |   |        |   |   |   |   |   |          |   |   |   |   |   |                 |   |   |   |   |   |
|  | Likely   | M  | M  | S  | H    | H   |  |              |  |  |  |  |     |     |     |      |     |            |                |   |   |   |   |   |        |   |   |   |   |   |          |   |   |   |   |   |                 |   |   |   |   |   |
|  | Possible   | L  | M  | M  | S    | S   |  |              |  |  |  |  |     |     |     |      |     |            |                |   |   |   |   |   |        |   |   |   |   |   |          |   |   |   |   |   |                 |   |   |   |   |   |
|  | Unlikely / Rare  | L  | L  | M  | M    | S   |  |              |  |  |  |  |     |     |     |      |     |            |                |   |   |   |   |   |        |   |   |   |   |   |          |   |   |   |   |   |                 |   |   |   |   |   |
| <table border="1"> <tr> <th colspan="2" rowspan="2"></th> <th colspan="5">Consequences</th> </tr> <tr> <th>Ins</th> <th>Min</th> <th>Maj</th> <th>Crit</th> <th>Ext</th> </tr> <tr> <th rowspan="4">Likelihood</th> <th>Almost Certain</th> <td>M</td> <td>S</td> <td>H</td> <td>H</td> <td>H</td> </tr> <tr> <th>Likely</th> <td>M</td> <td>M</td> <td>S</td> <td>H</td> <td>H</td> </tr> <tr> <th>Possible</th> <td>L</td> <td>M</td> <td>M</td> <td>S</td> <td>S</td> </tr> <tr> <th>Unlikely / Rare</th> <td>L</td> <td>L</td> <td>M</td> <td>M</td> <td>S</td> </tr> </table> |  |  |  |  |      |     |  | Consequences |  |  |  |  | Ins | Min | Maj | Crit | Ext | Likelihood | Almost Certain | M | S | H | H | H | Likely | M | M | S | H | H | Possible | L | M | M | S | S | Unlikely / Rare | L | L | M | M | S |
|  |  | Consequences   |  |  |      |     |  |              |  |  |  |  |     |     |     |      |     |            |                |   |   |   |   |   |        |   |   |   |   |   |          |   |   |   |   |   |                 |   |   |   |   |   |
|  |  | Ins  | Min  | Maj  | Crit | Ext |  |              |  |  |  |  |     |     |     |      |     |            |                |   |   |   |   |   |        |   |   |   |   |   |          |   |   |   |   |   |                 |   |   |   |   |   |
| Likelihood   | Almost Certain   | M  | S  | H  | H    | H   |  |              |  |  |  |  |     |     |     |      |     |            |                |   |   |   |   |   |        |   |   |   |   |   |          |   |   |   |   |   |                 |   |   |   |   |   |
|  | Likely   | M  | M  | S  | H    | H   |  |              |  |  |  |  |     |     |     |      |     |            |                |   |   |   |   |   |        |   |   |   |   |   |          |   |   |   |   |   |                 |   |   |   |   |   |
|  | Possible   | L  | M  | M  | S    | S   |  |              |  |  |  |  |     |     |     |      |     |            |                |   |   |   |   |   |        |   |   |   |   |   |          |   |   |   |   |   |                 |   |   |   |   |   |
|  | Unlikely / Rare  | L  | L  | M  | M    | S   |  |              |  |  |  |  |     |     |     |      |     |            |                |   |   |   |   |   |        |   |   |   |   |   |          |   |   |   |   |   |                 |   |   |   |   |   |
| <b>Hazard</b><br>(List the hazards relating to the work)   | <b>Controls</b><br>(List the controls to manage each of the hazards) | <b>Personal Protective Wears</b>   | <b>Responsible Party</b><br>(List the role, contractor, competency &/or prescribed occupation responsible for implementing the controls) | <b>Risk Assessment</b><br>(With controls in place: High, Serious, Medium or Low)   |      |     |  |              |  |  |  |  |     |     |     |      |     |            |                |   |   |   |   |   |        |   |   |   |   |   |          |   |   |   |   |   |                 |   |   |   |   |   |
|  |  |  |  |  |      |     |  |              |  |  |  |  |     |     |     |      |     |            |                |   |   |   |   |   |        |   |   |   |   |   |          |   |   |   |   |   |                 |   |   |   |   |   |
|  |  |  |  |  |      |     |  |              |  |  |  |  |     |     |     |      |     |            |                |   |   |   |   |   |        |   |   |   |   |   |          |   |   |   |   |   |                 |   |   |   |   |   |
| <b>Risk Assessment Personnel:</b>  |  |  |  |  |      |     |  |              |  |  |  |  |     |     |     |      |     |            |                |   |   |   |   |   |        |   |   |   |   |   |          |   |   |   |   |   |                 |   |   |   |   |   |
| Risk Assessment Completed by:  |  |  |  |  |      |     |  |              |  |  |  |  |     |     |     |      |     |            |                |   |   |   |   |   |        |   |   |   |   |   |          |   |   |   |   |   |                 |   |   |   |   |   |
| Name: _____  |  | Employer: _____  |  | Date: _____  |      |     |  |              |  |  |  |  |     |     |     |      |     |            |                |   |   |   |   |   |        |   |   |   |   |   |          |   |   |   |   |   |                 |   |   |   |   |   |
| Name: _____  |  | Employer: _____  |  | Date: _____  |      |     |  |              |  |  |  |  |     |     |     |      |     |            |                |   |   |   |   |   |        |   |   |   |   |   |          |   |   |   |   |   |                 |   |   |   |   |   |

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| Section 2 – Hot Work Permit  |                          |                          |  |
|--|--------------------------|--------------------------|--|
| As per the method of hot work and location described in Section 1, identify control requirements in the relevant parts below.  |                          |                          |  |
| <b>General Hot Work / Ignition Controls</b>  |                          |                          |  |
| Identify those general hot work and ignition controls required to be undertaken as part of the hot work: (identify as yes or not applicable)   | Yes                      | NA                       | Control  |
| <input type="checkbox"/>   | <input type="checkbox"/> | <input type="checkbox"/> | Fire extinguishers supplied by the workgroup / contractor are to be located immediately adjacent to the hot work area and within 10m (building / fixed location fire extinguishers are <u>not</u> to be relied upon)   |
| <input type="checkbox"/>   | <input type="checkbox"/> | <input type="checkbox"/> | Catch mats or boards are to be positioned over grid-mesh, flooring, grates to catch sparks or slag   |
| <input type="checkbox"/>   | <input type="checkbox"/> | <input type="checkbox"/> | Combustible and flammable materials or fuel sources are required to be cleared from the area (consider a 15m area around the hot work where practicable and include surfaces below & above the work area)  |
| <input type="checkbox"/>   | <input type="checkbox"/> | <input type="checkbox"/> | Drains, cable racks, electrical cables and other heat/fire sensitive items are to be covered (consider a 15m area and use fireproof blankets, catch boards and approved covers as applicable)  |
| <input type="checkbox"/>   | <input type="checkbox"/> | <input type="checkbox"/> | A water hose is to be run to the job location and primed ready for use (where appropriate for work locations outdoors and in areas clear of electrical equipment)  |
| <input type="checkbox"/>   | <input type="checkbox"/> | <input type="checkbox"/> | A Fire Watcher is required to watch the area during and/or post work to monitor fire risk, sparks, slag, hot objects (consider for work that is arc welding, oxy-cutting or likely to present an ignition hazard post work, and for work in hazardous areas, in confined spaces, outdoors, in windy conditions): |
|  |                          |                          | <input type="checkbox"/> During Work, and/or <input type="checkbox"/> Post Work for a time period of _____ minutes   |
| <b>Specific Hot Work / Ignition Controls</b>   |                          | Yes                      | NA   |
| The hot work is to be undertaken on or adjacent to plant that will require an isolation (such as services, pipes, tanks, pressure vessels)   |                          | <input type="checkbox"/> | <input type="checkbox"/>   |
| A fixed fire protection or detection system will need to be taken out of service (approval is required for the impairment and the Fire System Log Book is to be filled in – see also BAC Authorisation below; approval contacts include: |                          | <input type="checkbox"/> | <input type="checkbox"/>   |
| The work area will require specific cleaning, purging, ventilating or pre-work atmospheric monitoring (due to flammable/explosive vapours, dusts, liquids or solid residues in the work area / location)                                 |                          | <input type="checkbox"/> | <input type="checkbox"/>   |
| The work area will require pre-work cleaning, stripping, surface preparation, or atmospheric monitoring during works (as a result of surfaces / coatings that may create harmful emissions when heated or cut)                           |                          | <input type="checkbox"/> | <input type="checkbox"/>   |
| The nature of the work requires specific respiratory protection to be worn   |                          | <input type="checkbox"/> | <input type="checkbox"/>   |
| The nature of the work requires specific controls to be implemented to protect gas leads or other sensitive plant items involved in the work   |                          | <input type="checkbox"/> | <input type="checkbox"/>   |
| The hot work involves arc-welding whereby specific controls relating to ensuring electrical safety will be required  |                          | <input type="checkbox"/> | <input type="checkbox"/>   |
| <b>Additional Hot Work Controls within Confined Spaces</b> <input type="checkbox"/> NA (Not Applicable)  |                          |                          |  |
| Controls:  |                          | Yes                      | NA   |
| Locate equipment outside the space where practicable (such as gas cylinders, hoses, etc unless involved with respiratory devices)  |                          | <input type="checkbox"/> | <input type="checkbox"/>   |
| Extraction fan inlet is to be located as close as practicable to the contamination source  |                          | <input type="checkbox"/> | <input type="checkbox"/>   |
| Contaminants are to be expelled from the space (so that they cannot be recirculated and will not harm other workers)   |                          | <input type="checkbox"/> | <input type="checkbox"/>   |
| As arc-welding activities are to be suspended for substantial periods, power sources will need to be de-energised, electrodes removed from holders and holders placed so that accidental contact or arcing cannot occur                  |                          | <input type="checkbox"/> | <input type="checkbox"/>   |
| As gas welding/cutting activities are to be suspended for substantial periods, torch and cylinder valves are to be closed with the torch and hose connections removed from the space and depressurised                                   |                          | <input type="checkbox"/> | <input type="checkbox"/>   |
| <b>Completion Hot Work</b> <input type="checkbox"/> NA (Not Applicable)  |                          |                          |  |
| Controls:  |                          | Yes                      | N/A  |
| After the end of the job is controlled area for at least half an hour.   |                          | <input type="checkbox"/> | <input type="checkbox"/>   |
| Field is checked for at least eight hours and one hour intervals.  |                          | <input type="checkbox"/> | <input type="checkbox"/>   |
| There is no need to do control after hot working.  |                          | <input type="checkbox"/> | <input type="checkbox"/>   |
| <b>Permit Request:</b>   |                          |                          |  |
| Name: _____  | Signature: _____         | Date: _____              | Time: _____  |
| <b>Approved</b>  |                          |                          |  |
| Name: _____  | Signature: _____         | Date: _____              | Time: _____  |

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## **10.8 Responsibilities of Personnel in Operation**

### **10.8.1 Operation Officer**

**10.8.1.1** Acts according to the checklists in 10.9.

**10.8.1.2** A coordination meeting will be held at least 1 day prior to the acceptance of dangerous cargoes to the port facility and the representatives of operation, Field planning, HSE unit, TMGD and other related persons shall participate to the meeting.

**10.8.1.3** If a decision is taken at the meeting in favor of accepting the dangerous cargo, management, operation, storage, safety and emergency response departments shall be notified and the necessary preparations and acceptance process will be commenced.

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

**10.8.1.5** Number of equipments and cranes, teams and shifts as well as the port to be used shall be specified at this meeting.

**10.8.1.6** Organize the work order with the 2nd Cap.

**10.8.1.7** Ensure that the cargo handling is made according to the approved cargo plan.

**10.8.1.8** Every person engaged in the handling of dangerous cargoes exercises reasonable care to avoid damage to packages, unit loads and cargo transport units.

**10.8.1.9** While dangerous cargoes are being handled, precautions are taken to prevent unauthorized access to handling areas.

**10.8.1.10** If there is any loss of containment of dangerous cargo, every practical step is taken to minimize risks to persons and adverse effects to the environment.

**10.8.1.11** Wrappings and packaging to be used in the activities of changing of cargo transport units, repair thereof or placing of the damaged packages inside the saving packages should be in accordance with the structure of dangerous materials and they shall be produced and certified as they are set out in chapter 6 of the IMDG Code

**10.8.1.12** Handling and temporary storage operations to be performed is in accordance with the rules of separation.

**10.8.1.13** Fumigated cargo transport units and/or cargo transport units containing poisonous gases shall be stowed in a manner that their covers cannot be opened in an uncontrolled way.

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**10.8.1.14**      Packaged cargoes containing Class 4.3 cargo and bulk cargo shall be prevented from being affected by rain, seawater and other factors.

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

**10.8.1.16** During handling of dangerous solid loads ,Canvas is laid between the ship and the port and a responsible person is assigned for cleaning the cargo scattered around.

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

## **10.8.2 Shift Supervisor**

**10.8.2.1** Acts according to the checklists in 10.9.

**10.8.2.2** The personnel equipped with the necessary protective equipment check before the operation.

**10.8.2.3** Necessary warnings will be made in order that the trucks do not to make loading exceeding loading limit and people in charge will pay necessary attention with respect to this issue.

**10.8.2.4** The drivers will wait at a specified location away from the vehicle during the loading and unloading of vehicles. It will be controlled if the driver has the necessary protective equipments or not.

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

**10.8.2.6** Organize the work order with the 2nd Cap.

**10.8.2.7** Ensure that the cargo handling is made according to the approved cargo plan.

**10.8.2.8** Performs the necessary separation according to the classes of dangerous loads.

**10.8.2.9** Every person engaged in the handling of dangerous cargoes exercises reasonable care to avoid damage to packages, unit loads and cargo transport units.

**10.8.2.10** Whilst dangerous cargoes are being handled, precautions are taken to prevent unauthorized access to handling areas.

**10.8.2.11** If there is any loss of containment of dangerous cargo, every practical step is taken to minimize risks to persons and adverse effects to the environment.

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**10.8.2.12** Wrappings and packaging to be used in the activities of changing of cargo transport units, repair thereof or placing of the damaged packages inside the saving packages should be in accordance with the structure of dangerous materials and they shall be produced and certified as they are set out in chapter 6 of the IMDG Code

**10.8.2.13** Fumigated cargo transport units and/or cargo transport units containing poisonous gases shall be stowed in a manner that their covers cannot be opened in an uncontrolled way.

**10.8.2.14** Packaged cargoes containing Class 4.3 cargo and bulk cargo shall be prevented from being affected by rain, seawater and other factors.

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

**10.8.2.16** During handling of dangerous solid loads ,Canvas is laid between the ship and the port and a responsible person is assigned for cleaning the cargo scattered around.

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

**10.8.2.18** Water balls should be place in vicinity of areas where dangerous materials like coal, which have spontaneous combustion but not affected by water, are stored and watering works should be carried out in a way to avoid combustion. It will be considered if there is a drainage system for collecting the polluted water in the environment when the temporary storage area is announced.

### **10.8.3 HSE Responsibility**

**10.8.3.1** Acts according to the checklists in 10.9.

**10.8.3.2** The worker at the operation informs about the danger of load and equips it with the necessary protective equipment.

**10.8.3.3** Environmental safety is ensured.

**10.8.3.4** Ensure that personnel are not dutied in the ship's warehouse or on the ground before gas measurements are made.

**10.8.3.5** Take necessary fire precautions and control system operation.

**10.8.3.6** Controls the presence of the required warning and warning signs.

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**10.8.3.7** Wrappings and packaging to be used in the activities of changing of cargo transport units, repair thereof or placing of the damaged packages inside the saving packages should be in accordance with the structure of dangerous materials and they shall be produced and certified as they are set out in chapter 6 of the IMDG Code

**10.8.3.8** Fumigated cargo transport units and/or cargo transport units containing poisonous gases shall be stowed in a manner that their covers cannot be opened in an uncontrolled way.

**10.8.3.9** Packaged cargoes containing Class 4.3 cargo and bulk cargo shall be prevented from being affected by rain, seawater and other factors.

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

**10.8.3.11** During handling of dangerous solid loads ,Canvas is laid between the ship and the port and a responsible person is assigned for cleaning the cargo scattered around.

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

**10.8.3.13** Water balls should be place in vicinity of areas where dangerous materials like coal, which have spontaneous combustion but not affected by water, are stored and watering works should be carried out in a way to avoid combustion. It will be considered if there is a drainage system for collecting the polluted water in the environment when the temporary storage area is announced.

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## 10.9 Safe Handling of Dangerous Cargoes Operation Procedure Checklist

### GENERAL

| S.NO   | Eylem  | SEÇ | OP. SOR | VAR. AMR. |
|--|--|-----|---------|-----------|
| <b>YÜKÜN KABULU</b>  |  |     |         |           |
| 1.   | A coordination meeting will be held at least 1 day prior to the acceptance of dangerous cargoes to the port facility   | X   | X       |           |
| 2.   | The MSDS form about load is provided.  |     | X       |           |
| 3.   | A detailed stowage plan, which identifies by class and sets out the location of all dangerous cargoes and marine pollutants on board, may be used in place of such a special list or manifest. (IMO FAL form 7 )   |     | X       |           |
| 4.   | The Certificate of Conformity for the ship carrying the dangerous cargoes will be checked.   |     | X       |           |
| 5.   | Approved cargo handling / evacuation plan requested  |     | X       |           |
| 6.   | The dangerous cargo (es) to be accepted to the port:<br>1. Risk arising from dangerous cargo<br>2. Interaction with dangerous cargoes existing at the port facility,<br>3. Interaction with cargoes planned to be accepted to the port facility in the near future,<br>4. Conditions for stowage<br>5. Conditions for segregation<br>6. Requirement of materials and equipment with respect to emergency response<br>7. Sufficiency of emergency response equipments<br>8. Interaction with the neighboring area (s)<br>The issues mentioned herein above will be discussed within the scope of current IMDG CODE documents and a management decision for accepting/rejecting will be taken. |     | X       |           |
| 7.   | If a decision is taken at the meeting in favor of accepting the dangerous cargo, management, operation, storage, safety and emergency response departments shall be notified and the necessary preparations and acceptance process will be commenced.  |     | X       |           |
| 8.   | Number of equipments and cranes, teams and shifts and pier shall be specified.   |     | X       |           |
| 9.   | The personnel who will work in the operation will be provided with information as regards the risks of the cargo and they will be equipped with the necessary protective outfit.   |     | X       |           |
| 10.  | Required warnings, warning signs are provided around the area being handled.   |     | X       |           |
| P.S. : In standard handled loads, meeting is optional. Previous meeting resolutions may apply. |  |     |         |           |



|           |                                       |              |         |               |          |
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**Paketli Tehlikeli Yüklerin Emniyetli Elleçlenmesi Operasyonu Prosedürü**

**Kontrol Listesi**

**Paketli tehlikeli yükler kıyı tesisimizde supalan olarak tahmil/tahliyesi yapılacaktır.**

| S.NO             | Eylem  | SEÇ | OP. SOR | VAR. AMR. |
|------------------|--|-----|---------|-----------|
| <b>ELLEÇLEME</b> |  |     |         |           |
| 1.               | Environmental safety is provided by HSE. Until the gas measurements are made, personnel are not assigned to the ship's shelter and to the field.   | X   | X       | X         |
| 2.               | Controlling the work safety, control of equipments, entry and exit of outsiders, safe handling of the cargo, environmental cleaning and duly performance of these works.   |     | X       | X         |
| 3.               | Working order will be organized through the berth operator, shift supervisor and chief officer of the ship. Berth operator ensures the realization of loading or unloading as per the cargo plan. The responsibility of loading and unloading as per the cargo plan belongs to the Berth Operator.   |     | X       | X         |
| 4.               | Packages containing Class 4.3 dangerous substances which, in contact with water, emit flammable gases and cargo transport units containing these types of packages will be stored at closed areas which are not affected from factors like rain, sea water and etc..   | X   | X       | X         |
| 5.               | It is checked that the communication equipment used in the operation area is expof.  | X   | X       | X         |
| 6.               | The captain and port authority will supervise the transport of dangerous cargoes within their respective areas of responsibility while the shift superintendent or the berth operator will ensure performance of proceedings in line with the risks related to the cargo and they shall notify the captain regarding steps to be taken in emergency cases. Shift supervisor / Operation supervisor will coordinate with the 2nd Captain. |     | X       | X         |
| 7.               | Information on emergency procedures will be given to the person responsible for the ship and cargo handling  | X   |         |           |
| 8.               | Necessary warnings will be made in order that the trucks do not to make loading exceeding loading limit and people in charge will pay necessary attention with respect to this issue.  |     | X       | X         |
| 9.               | The drivers will wait at a specified location away from the vehicle during the loading and unloading of vehicles. It will be controlled if the driver has the necessary protective equipments or not.  |     | X       | X         |
| 10.              | Dangerous cargoes are being handled, precautions are taken to prevent unauthorized access to handling areas.   | X   | X       | X         |
| 11.              | The operation shall be performed in accordance with the rules of separation specified in the separation scale for dangerous cargoes  |     | X       | X         |
| 12.              | Fumigated cargo transport units and/or cargo transport units containing poisonous gases shall be stowed in a manner that their covers cannot be opened in an uncontrolled way  |     | X       | X         |

|           |                                       |              |         |               |          |
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## Katı Halde Tehlikeli Yüklerin Emniyetli Elleçlenmesi Operasyonu Prosedürü

### Kontrol Listesi

**Katı halde tehlikeli yükler kıyı tesisimizde supalan olarak tahmil/tahliyesi yapılacaktır.**

| S.NO             | Eylem   | SEÇ | OP. SOR | VAR. AMR. |
|------------------|---|-----|---------|-----------|
| <b>ELLEÇLEME</b> |   |     |         |           |
| 1.               | Necessary warnings will be made in order that the trucks do not to make loading exceeding loading limit. After loading the trucks will surely top off.  | X   | X       | X         |
| 2.               | The drivers will wait at a specified location away from the vehicle during the loading and unloading of vehicles. It will be controlled if the driver has the necessary protective equipment or not.  | X   | X       | X         |
| 3.               | Controlling the work safety, control of equipment, entry and exit of outsiders, safe handling of the cargo, environmental cleaning and duly performance of these works.   |     |         | X         |
| 4.               | Loading and unloading in accordance with the cargo plan   |     | X       | X         |
| 5.               | If the evacuation of ship is partially completed, gas measurements will be conducted prior to assignment for the evacuation of cargo in the hold of the ship.   | X   | X       | X         |
| 6.               | Canvas is laid between the ship and the port and a responsible person is assigned for cleaning the cargo scattered around.  | X   | X       | X         |
| 7.               | Dangerous areas, where handling is done in line with the risks of the dangerous cargo, are determined, regulatory authority's buildings, other facility near the facility, the types of cargo handled at these facilities and features of other cargo which are temporarily stored and handled at the facility, and the fastest and the safest access opportunities as to emergency responses will be taken into consideration. | X   | X       | X         |
| 8.               | At the areas where solid bulk dangerous cargoes releasing poisonous or flammable gases are handled, periodic controls will be conducted for measuring poisonous or flammable gas concentrations as well as their probable dissemination and the precautions taken will be recorded  | X   |         |           |
| 9.               | Water balls should be place in vicinity of areas where dangerous materials like coal, which have spontaneous combustion but not affected by water, are stored and watering works should be carried out in a way to avoid combustion. It will be considered if there is a drainage system for collecting the polluted water in the environment when the temporary storage area is announced.                                     | X   | X       | X         |
| 10.              | Canvas to be used for avoiding the solid bulk dangerous cargoes from falling to the sea during evacuation or while loading to the ship, will be kept between the ship and the port during the operations.   | X   | X       | X         |
| 11.              | The captain who will load/unload the solid bulk dangerous cargoes will receive the detailed loading or unloading plan which includes details as to the position and quantity of the cargo in the ship from the berth operator prior to the beginning to loading or unloading process. An agreement shall be reached between the captain and the berth operator as to the said loading or unloading plan.                        |     | X       | X         |

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## **10.10 EmS (Emergency Procedures for Vessels carrying Dangerous Cargoes) and MFAG (Medical First Aid Guide)**

In emergencies, it is important to use IMSBC, IBC or IGC Codes for bulk cargo as well as all available IMDG Code, EMS and MFAG information.

### **10.10.1 EmS (Emergency Procedures for Vessels carrying Dangerous Cargoes) Guide Usage Procedure**

#### **1. PURPOSE**

This instruction covers the first aid activities to be applied as a result of accidents that may occur in the liquid/dry cargo loading/unloading activities within the scope of dangerous cargoes for the berthed/berthing ships.

#### **2. SCOPE**

This instruction covers all units of the port facilities of ASSAN LİMAN İŞLETMELERİ A.Ş. It is the responsibility of all personnel involved in the Emergency Response Action, including the workplace doctor and first aid personnel.

#### **3. DEFINITIONS**

Dangerous Cargo;

Packages and cargo carrying transportation units and the residues of these that have the potential to harm life, property, environment and living organisms due to their physical, chemical properties or mode of transport, as defined in clause s of paragraph 1 of Article 4 of the Regulation on the Transport of Dangerous Cargoes by Sea and Loading Safety.

EmS Guide: A guide prepared by IMO for the response to fire and spillage related to dangerous cargoes accidents and incidents.

#### **4. RESPONSIBILITIES**

Dangerous Cargoes Operation Advisor (Personnel responsible for the operation of dangerous cargoes)

#### **5. APPLICATION**

The EmS Guide is prepared based on two different response methods for fire and spillage incidents.

Response methods to be applied in case of fire are described in ten tables A to J with the heading EmS Guide F;

F - A

F - B

F - C

F - D

F - E

F - F

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F - G

F - H

F - I

F - J

The intervention methods to be applied in case of a spillage are described in the heading S with 26 tables from A to Z;

S – A                      S – N

S – B                      S – O

S – C                      S – P

S – D                      S – Q

S – E                      S – R

S – F                      S – S

S – G                      S – T

S – H                      S – U

S – I                      S – V

S – J                      S – W

S – K                      S – X

S – L                      S – Y

S – M                      S – Z

The table for that dangerous cargo shall be located opposite of the UN number by means of the index.

The EmS manual will be used as follows:

1 When an emergency occurs for fire and spillage, **Emergency Procedures** are applied,

2 In the event of an emergency involving packaged dangerous cargoes, the **IMDG Code** is first applied,

3 Detailed advices for the load(s) are recommended by reading the relevant plan (EmS) for the load(s).

5.1. Where the accident occurred; Restrictions on leakage and fire prevention shall be carried out for the substance located in the Dangerous Cargoes Information Form, IMDG Code and Supplementary volumes.

5.2. In the Emergency Response Procedure, fire and leakage prevention methods are explained for each cargo handled in our port.

5.3. The equipment to be used shall be approved and available at all times.

5.4. Depending on the importance of the event, regional and national administrative institutions will be informed.

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5.5. If the operation management agrees, the nearest specialist units will be informed.

5.6. Immediately after the first intervention, the nearest specialist units will be involved.

## **10.10.2 MEDICAL FIRST AID GUIDE USAGE PROCEDURE**

### **1. PURPOSE**

This instruction covers the first aid activities to be applied as a result of accidents that may occur in the liquid/dry cargo loading/unloading activities within the scope of dangerous cargoes for the berthed/berthing ships.

### **2. SCOPE**

This instruction covers all units of the port facilities of ASSAN LİMAN İŞLETMELERİ A.Ş. It is the responsibility of all personnel involved in the Emergency Response Action, including the workplace doctor and first aid personnel.

### **3. DEFINITIONS**

Dangerous Cargo;

Packages and cargo carrying transportation units and the residues of these that have the potential to harm life, property, environment and living organisms due to their physical, chemical properties or mode of transport, as defined in clause s of paragraph 1 of Article 4 of the Regulation on the Transport of Dangerous Cargoes by Sea and Loading Safety.

UN: Refers to the United Nations number of dangerous cargoes.

Medical First Aid Guide: This is the guide prepared by IMO for the treatment of accidents and incidents related to dangerous cargoes.

### **4. RESPONSIBILITIES**

4.1. Workplace Doctor

4.2 Dangerous Cargoes Operations Officer (Personnel responsible for the operation of dangerous cargoes)

4.3. First aid certified personnel.

### **5. APPLICATION**

5.1. Firstly, the EmS number and MFAG table number of Dangerous Cargoes according to UN number are determined from IMDG Code general index.

5.2. For those who do not have a UN number or are registered as NOS, the EmS number and the MFAG table number can also be found by entering them from the relevant table of the IMDG Code.

5.3. If the appropriate transport name (PSN) or UN number is known, MFAG number can be found from IMDG code, alphabetical index or numerical index.

5.4. Although the appropriate transport name (PSN) or UN number is not known, if the type of dangerous cargo is known, the appropriate MFAG Table Number may be identified by referring to the index of the chemical tables in section 10 of this manual.

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5.5. The cleaning and washing operation in the Dangerous Cargoes Information Form, IMDG Code and Supplementary volumes related to damaged substance shall be carried out primarily.

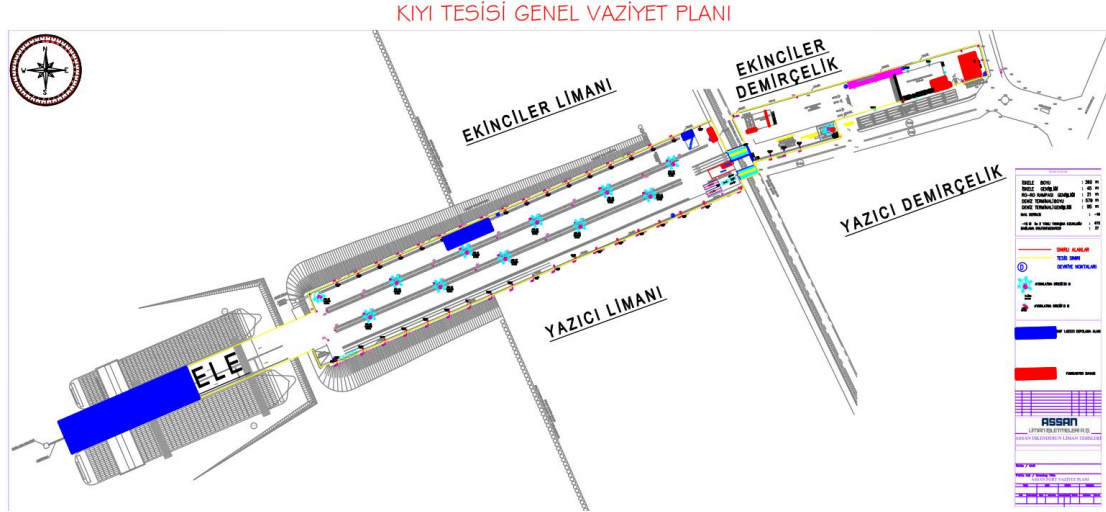
5.6. The equipment to be used should be approved and available at all times.

5.7. After the first intervention, the nearest specialist organization will be dispatched immediately

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## 11 ANNEXES

### 11.1 General Layout of the Coastal Facility





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## 11.2 General View Photos of the Coastal Facility





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### 11.3 Emergency Contact Points and Contact Information

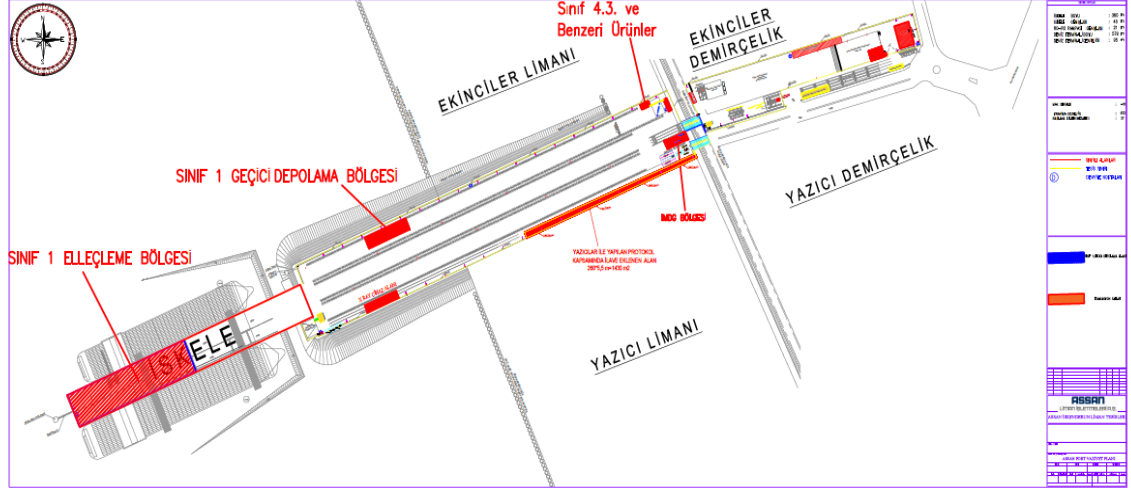
| AssanPort                   |        |                |          |                            |        |                |          |
|-----------------------------|--------|----------------|----------|----------------------------|--------|----------------|----------|
| İsim                        | Dahili | Gsm            | Kısa Kod | İsim                       | Dahili | Gsm            | Kısa Kod |
| ALİ EMRE AKDAĞCIK           | 4025   | (530) 497-5523 | 46525    | GÜVENLİK MERKEZİ           | 4034   |                |          |
| İSG BİRİMİ                  | 4009   | (536) 598-9374 | 9374     | GÜMRÜK KAÇAKÇILIK          | 4061   |                |          |
| ATLANTİK VIP TOPLANTI ODASI | 4010   |                |          | İBRAHİM TAŞKAPAN           | 4030   |                |          |
| AYLİN UYUMAZ                | 4047   | (530) 232-6450 | 46547    | İDARİ BİNA GÜVENLİK        | 4026   |                |          |
| B KAPI                      | 4062   |                |          | KANTAR                     | 4022   |                |          |
| B KANTAR                    | 4063   |                |          | KENAN AYBAR                | 4038   | (535) 341-3332 | 3332     |
| B GÜMRÜK MUHAFAZA           | 4057   |                |          | LATİF DEMİRKIRAN           |        | (530) 954-6185 | 46567    |
| B GÜMRÜK KOLCU              | 4060   |                |          | LİMAN A KAPI               | 4021   |                |          |
| B GÜVENLİK MERKEZİ          | 4064   |                |          | LOJİSTİK EREN YILMAZER     | 4054   | (530) 961-7573 |          |
| BİLGE YAŞAR                 | 4018   |                |          | LOJİSTİK HAMİT VURAL       | 4051   | (530) 151-4166 |          |
| BİLGİ İŞLEM-ABDULLAH Ç.     | 4041   | (530) 954-6150 | 46541    | LOJİSTİK OSMAN KURT        | 4028   | (530) 177-1937 |          |
| CFS OFİS 2                  | 4048   |                |          | MEFAİL ALTUNAY             | 4046   |                |          |
| CCTV ODASI                  | 4052   |                |          | MSC ACENTA/RÜSTEM K.       |        | (326) 656-2007 |          |
| CELİL DÖNMEZ                | 4020   |                |          | NERİMAN AKIN               | 4037   |                |          |
| CEM KUVAS                   | 4040   | (532) 224-1430 |          | OKTAY ZEMZEM               |        | (530) 177-1984 | 46570    |
| CFS OFİS                    | 4059   | (530) 961-9317 | 46569    | OLGAY ÇIPLAK               | 4002   | (530) 961-9320 | 46502    |
| CFS/SAYINLAR                | 4033   |                | 46569    | ÖMER FARUK MEMİŞ           | 4027   |                |          |
| CİHANGİR YAVUZ              | 4011   | (530) 940-8679 | 46511    | ÖMER ERSOY                 | 4027   |                |          |
| ÇAY OCAĞI (ATÖLYE)          | 4050   |                |          | PLANLAMA                   | 4012   |                |          |
| ÇAY OCAĞI (İDARİ)           | 4056   |                |          | SAYINLAR DEPO              | 4014   |                |          |
| DEMİR YOLU GÜVENLİK         | 4058   |                |          | SERKAN TÜRKMEN             | 4015   | (538) 053-7196 | 7196     |
| ECE SÖKMEN                  | 4043   |                |          | ÖZLEM PAYALAN              | 4017   |                |          |
| CFS (şef)                   | 4004   | (530) 063-9697 | 46516    | SULTAN TİMUR               | 4045   |                |          |
| ESRA TOKMAK                 | 4013   |                |          | ŞAFAK KILIÇKIRAN           | 4032   | (530) 941-1613 | 46532    |
| FAX (İDARİ BİNA)            | 4044   |                |          | TAŞKIN TÜRKMENÖĞLU         | 4005   |                |          |
| GEMİ OPERASYON (şef)        | 4003   | (530) 961-9318 | 46503    | TEKNİK DEPO                | 4023   |                |          |
| GAMZE AKKILIÇ               | 4007   |                |          | TEKNİSYEN                  | 4031   |                |          |
| GEMİ OPERASYON              | -      | (539) 788-5380 | 46568    | TİM LİDERİ (SAMİ KAYA)     | 4019   | (530) 177-1962 | 46571    |
| PORT RESEPSİYON             | 4039   |                |          | TİM LİDERİ (ÜMİT ÖNAL)     | 4019   | (530) 280-5109 | 46572    |
| GÖKHAN BÖLÜKBAŞI            | 4029   | (530) 232-8435 | 46529    | TİM LİDERİ (ÜNAL DURSUN)   | 4019   | (530) 280-5108 | 46519    |
| GÜMRÜK MEMURU               | 4036   |                |          | TOROS TOLGA KELEŞOĞLU      | 4001   |                | 46501    |
| GÜMRÜK MUHAFAZA             | 4035   |                |          | VIP TOPLANTI ODASI         | 4053   |                |          |
| GÜMRÜK KISIM AMİRİ          | 4008   |                |          |                            |        |                |          |
| Kibar Holding Tuzla Tesisi  |        | (216) 581-1000 |          | Kibar Holding Zorlu Center |        | (212) 924-7300 |          |

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| TESİS DIŞI İRTİBATLAR  | TELEFON NUMARASI                   | FAKS            |
|--|------------------------------------|-----------------|
| <b>DEVLET KURUMLARI</b>  |                                    |                 |
| T.C. Ulaştırma ve Altyapı Bakanlığı Ana Arama Kurtarma Koordinasyon Merkezi (AAKKM)            | 0 312 231 91 05<br>0 312 232 47 83 | 0 312 232 08 23 |
| T.C. Çevre, Şehircilik ve İklim Değişikliği Bakanlığı Deniz ve Kıyı Yönetimi Daire Başkanlığı  | 0 312 586 30 01<br>0 312 586 30 02 | 0 312 474 03 35 |
| Hatay Çevre, Şehircilik ve İklim Değişikliği İl Müdürlüğü                                      | 0 326 213 77 43<br>0 326 215 42 00 | 0 326 214 30 87 |
| Hatay Valiliği   | 0 326 214 62 10                    | 0 326 214 62 10 |
| T.C. Ulaştırma ve Altyapı Bakanlığı İskenderun Bölge Liman Başkanlığı                          | 0326 613 27 40                     | 0 326 614 02 26 |
| Hatay İl Gıda Tarım ve Hayvancılık Müdürlüğü Hayvan Sağlığı Yet. ve Su Ürünleri Şube Müdürlüğü | 0 326 213 77 43<br>0 326 215 42 00 | 0 326 214 30 87 |
| <b>EMNİYET BİRİMLERİ</b>   |                                    |                 |
| Hatay İl Emniyet Müdürlüğü   | 0 326 214 61 91                    | -               |
| İskenderun İlçe Emniyet Müdürlüğü  | 0 326 614 21 23                    | 0 326 613 52 54 |
| İskenderun İlçe Jandarma Komutanlığı   | 0 326 613 59 69                    | -               |
| Sahil Güvenlik Akdeniz Bölge Komutanlığı   | 0 324 237 22 22<br>0 324 237 19 19 | 0 324 237 19 36 |
| Hatay İl Afet ve Acil Durum Müdürlüğü  | 0 326 216 10 67<br>0 326 216 06 21 | 0 326 213 44 88 |
| <b>İTFAİYE</b>   |                                    |                 |
| İskenderun İtfaiye Müdürlüğü   | 0 326 614 10 00                    | -               |
| <b>BELEDİYELER</b>   |                                    |                 |
| İskenderun Belediyesi  | 0 326 615 49 90                    | 0 326 614 16 72 |
| Hatay Belediye Başkanlığı  | 0 326 214 91 90                    | 0 326 214 91 99 |
| <b>ÜNİVERSİTELER</b>   |                                    |                 |
| İskenderun Teknik Üniversitesi   | 0 326 613 56 00                    | 0 326 613 56 13 |
| Mustafa Kemal Üniversitesi   | 0 326 221 33 17                    | 0 326 221 33 20 |
| Mustafa Kemal Üniversitesi Veteriner Fakültesi   | 0 322 245 53 13                    | 0 322 245 57 04 |
| <b>HASTANELER</b>  |                                    |                 |
| İskenderun Devlet Hastanesi  | 0 326 615 37 50                    | 0 326 616 16 01 |
| Antakya Devlet Hastanesi   | 0 326 227 15 15                    | 0 326 227 24 40 |
| <b>HAVAALANI</b>   |                                    |                 |
| Adana Havalimanı   | 0 322 431 36 52                    | 0 322 435 91 26 |
| <b>LABORATUVARLAR</b>  |                                    |                 |
| Hatay İl Kontrol Laboratuvarı  | 0 326 216 27 73                    | 0 326 214 91 51 |
| <b>KOMŞU TESİSLER</b>  |                                    |                 |
| Yazıcı Liman   | 0 326 656 28 10                    | 0 326 656 29 09 |
| Ekinciler Liman  | 0 326 656 22 31                    | 0 326 656 33 55 |
| <b>DALGIÇLIK HİZMETLERİ</b>  |                                    |                 |
| Çağan Dalgıçlık Sualtı Hizmetleri  | 0 326 613 55 72                    | 0 326 614 18 96 |
| <b>ARAÇ KİRALAMA</b>   |                                    |                 |
| Best Rent A Car  | 0 326 213 23 32                    | 0 326 323 73 33 |
| <b>KILAVUZ KAPTANLAR</b>   |                                    |                 |
| Türk Kılavuz Kaptanlar Derneği   | 0 212 293 85 00                    | 0 212 249 18 76 |

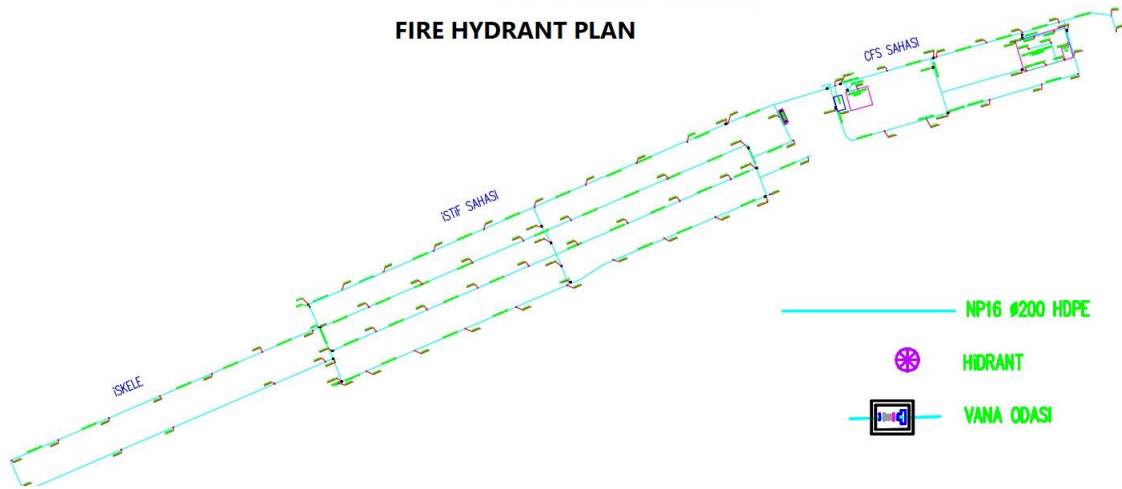
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#### 11.4 General Layout of Areas Where Dangerous Cargoes are Handled



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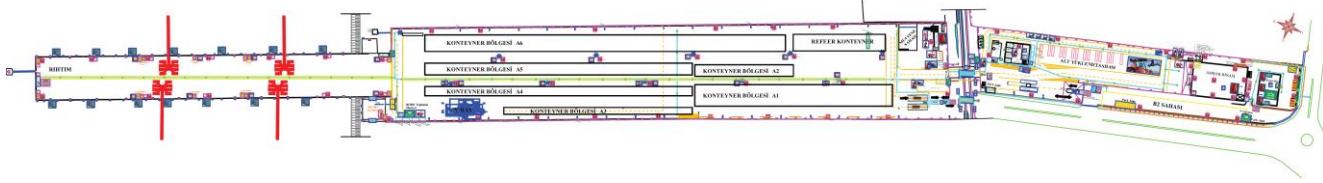
## 11.5 Fire Plan of Areas Where Dangerous Cargoes are Handled



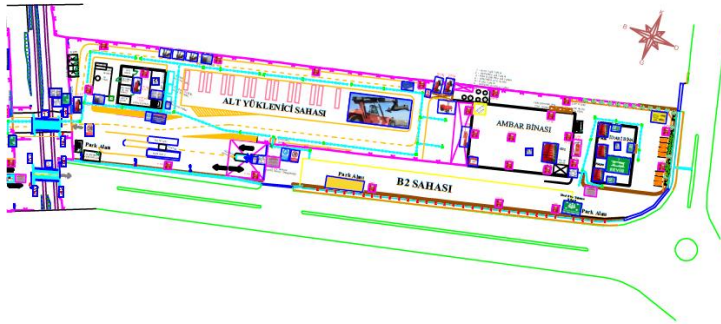
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## 11.6 General Fire Plan of the Facility

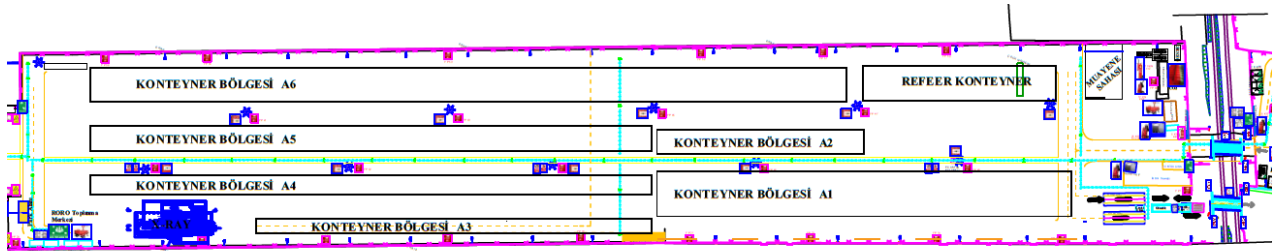
### a) General Plan



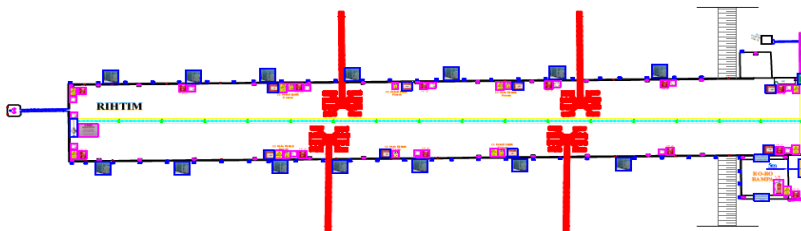
### b) Level Crossing – Admin. Building



### c) Stacking Area



### d) Pier



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## 11.7 Emergency Plan

1. It is kept as a separate document at the port facility, and the Emergency Plan prepared within the scope of the Regulation on Emergencies at Workplaces published in the Official Gazette dated 18/6/2013 and numbered 28681, it is revised to include it as a separate title, covers the issues specified in Annex-9 of the Directive on the Issuance of a Coastal Facility Dangerous Cargo Compliance Certificate. This plan is kept up to date and implemented when necessary. The part of the plan, which includes the matters specified in Annex-9, is updated at most every two years and renewed every two years at most. Emergency Plan details are as follows.
  - a. Name, title and contact details of the person/organization preparing the emergency procedures and procedures.
  - b. Emergency response organization chart.
  - c. Coordinating the response activities to emergencies that may occur at the coastal facility and port authority; where there is no port authority, the name, title and contact information, duties and responsibilities of the authorized person appointed to liaise with the regional port authority and other relevant institutions and organizations.
  - d. Coordination methods to be provided with emergency teams outside the coastal facility in case of emergency.
  - e. The names and duties of the teams designated for emergency response, and the names, duties and responsibilities of the personnel assigned to these teams.
  - f. The nature, capacity and locations of the resources, equipment and hardware to be used by the coastal facility for emergency response.
  - g. Measures to be taken and actions to be taken as a result of the risk assessment carried out in order to keep the serious conditions that can be foreseen to cause the occurrence of emergencies under control and to minimize the negative effects that may occur, and the existing facilities, capabilities and capacity of the facility.
  - h. The nature and announcement methods of the precautions and warnings to be taken in order to prevent or minimize the possible risks to the persons in the coastal facility in case of an emergency, and the arrangements regarding the actions to be taken by the persons in the face of the warnings.
  - i. In case of emergency, the notification procedures to be made in accordance with the Directive on Dangerous Cargoes Transported by Sea and Special Permit, published with the Minister's Approval dated 12/4/2019 and numbered 29486.
  - j. Trainings to be taken by the personnel who will be assigned in emergency situations.
  - k. The nature and period of the drills to be made for emergencies.
2. In order to provide the necessary medical first aid for the people affected by the damages of dangerous cargoes and the health problems caused by the accidents involving these cargoes, a medical first aid guide (MFAG) included in the IMDG Code annex covers all of the cargo handled and/or temporarily stored in the facility

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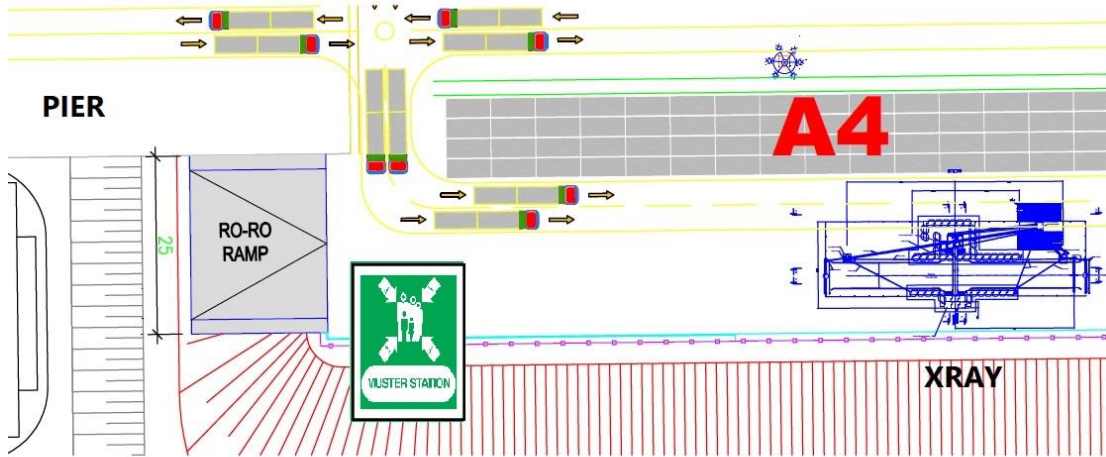
prepared and it is added to the relevant part of the medical first aid guide and the Emergency Plan. General medical recommendations are given on the basis of load classes for packaged dangerous cargoes.

3. If a new dangerous cargo is to be handled, a procedure including first aid applications for this cargo is prepared, added to the relevant part of the Emergency Plan, and information is given to the port authority. All relevant personnel are explained how to use the medical first aid guide in emergency trainings held at the facility.
4. The relevant part of the Emergency Plan covers each of the following emergencies:
  - a. Facility, equipment, site and ship fires and explosions.
  - b. Cargo fires or leakage, flow or spillage of dangerous cargoes belonging to each dangerous cargo class and sub-hazard classes that are allowed to be handled and/or temporarily stored at the coastal facility.
  - c. Marine pollution caused by dangerous cargoes.
  - d. Gas leak.
  - e. Power outage.
  - f. Earthquake and flood.

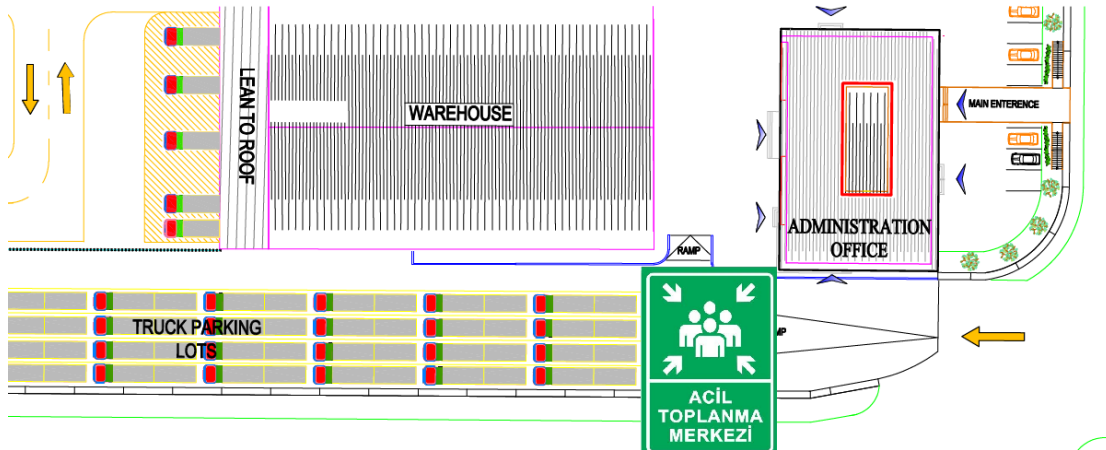
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## 11.8 Emergency Assembly Areas Plan

### a) Pier



### b) Administration Building

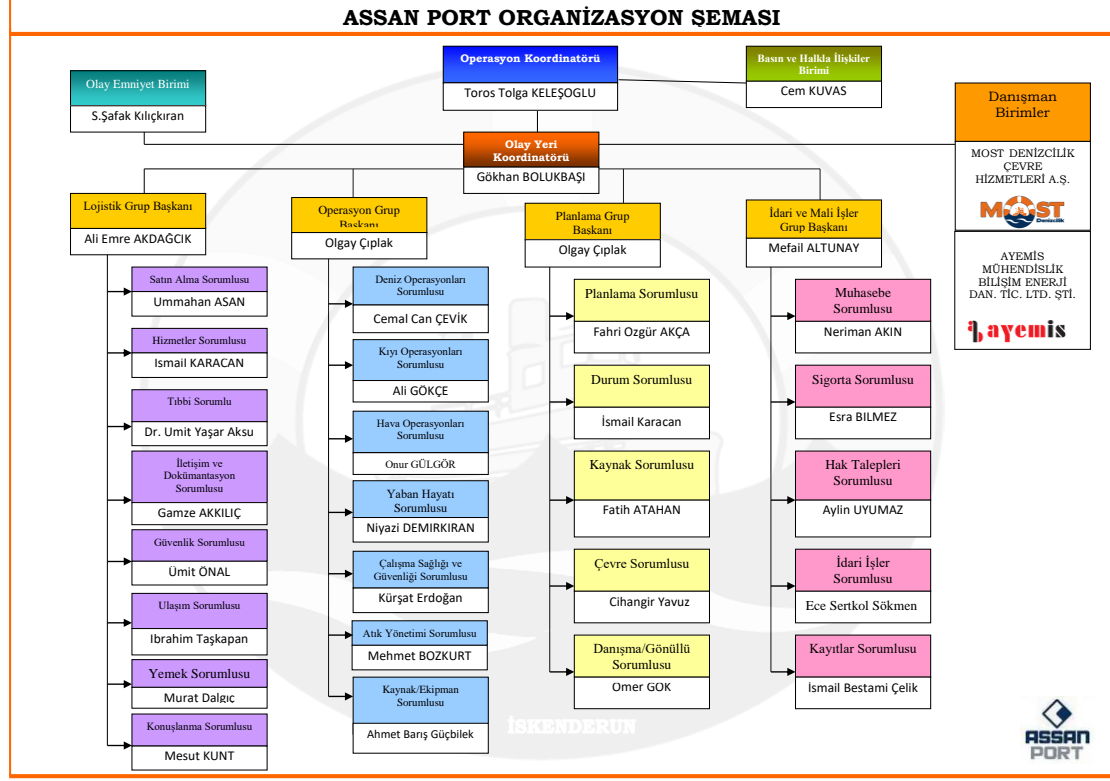




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## 11.9 Emergency Management Chart

(Persons in charge of this organization and their contact information are up-to-date.)





|           |                                       |              |         |               |          |
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#### **11.11 Leakage Areas and Equipment for CTU and Packages, Entry and Exit Drawings**

It is in the layout plan.

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## 11.12 Inventory of Port Service Ships

Service is obtained from a third party company.

ANADOLU KILAVUZLUK A.Ş.  
İskenderun Kılavuzluk Station  
Denizciler Mah E5 Karayolu Üzeri  
106. Sok. Dış Kapı No: 18  
İskenderun/HATAY  
Tel : 0326 645 71 70  
Fax : 0326 645 44 32  
Mail : iskenderunpilot@ankaspilot.com

UZMAR UZMANLAR DENİZCİLİK SANAYİ TİC. LTD. ŞTİ  
Hatay İskenderun Station  
Denizciler Mah. 2501.Sk Ada Konakları No:34/8  
İskenderun / Hatay / Türkiye  
Tel: +90 0326 645 43 43 (Pbx) |  
Fax: +90 0326 645 46 46  
Mobile: 0531 648 47 17  
Mail : iskenderun@uzmar.net

ARPAŞ AMBARLI RÖMORKAJ PİLOTAJ TİCARET A.Ş.  
İskenderun Branch  
Denizciler Mahallesi E-5 Karayolu Üzeri No:12/B 31280  
İskenderun / Hatay / Türkiye  
Tel - İskenderun Branch: 0 326 645 38 10  
Mail : gozcu@arpas-pilotaj.com.tr

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### **11.13 Maritime Coordinates of Port Authority Administrative Boundaries, Anchorage Places and Pilot Landing / Boarding Points**

#### **A) Port administrative area border**

The port administrative area of Iskenderun Port Authority is the sea and coastal area, which is to the east of the line drawn from the coordinate (c) to the true south (180°) and bounded by the Turkish territorial waters adjacent to this area.

- a) 36° 55' 18" N – 036° 02' 14" E
- b) 36° 44' 54" N – 036° 03' 12" E
- c) 36° 25' 15" N – 035° 35' 57" E

#### **B) Anchorage areas**

a) South anchorage area no. 1: The anchorage area of ships not carrying dangerous cargoes and military ships is the sea area formed by the following coordinates.

- 1) 36° 36' 51" N – 036° 08' 00" E
- 2) 36° 36' 00" N – 036° 08' 00" E
- 3) 36° 36' 00" N – 036° 10' 30" E
- 4) 36° 36' 30" N – 036° 10' 30" E
- 5) 36° 36' 51" N – 036° 10' 00" E

b) Anchorage area No. 2 for dangerous cargo ships: The anchorage area of ships carrying dangerous cargoes, nuclear powered military ships, ships to be quarantined and ships that will carry out degassing is the sea area formed by the following coordinates.

- 1) 36° 38' 30" N - 036° 09' 30" E
- 2) 36° 37' 42" N - 036° 09' 30" E
- 3) 36° 37' 42" N - 036° 10' 30" E
- 4) 36° 38' 30" N - 036° 10' 30" E

c) East anchorage area no. 3: The anchorage area of ships not carrying dangerous cargoes and military ships is the sea area formed by the following coordinates.

- 1) 36° 43' 00" N - 36° 08' 00" E
- 2) 36° 39' 00" N - 36° 09' 30" E
- 3) 36° 39' 00" N - 36° 11' 00" E
- 4) 36° 43' 00" N - 36° 09' 30" E

d) North anchorage area no. 4: The anchorage area of ships not carrying dangerous cargoes and military ships is the sea area formed by the following coordinates.

- 1) 36° 46' 30" N - 36° 09' 00" E
- 2) 36° 46' 30" N - 36° 07' 00" E
- 3) 36° 45' 00" N - 36° 07' 00" E
- 4) 36° 45' 00" N - 36° 09' 00" E

e) 5 (A) anchorage area: The anchorage area of ships carrying dangerous cargoes, nuclear powered military ships, ships to be quarantined and ships that will carry out degassing is the sea area formed by the following coordinates.

- 1) 36° 50' 05" N - 36° 07' 30" E
- 2) 36° 49' 27" N - 36° 06' 36" E
- 3) 36° 49' 14" N - 36° 08' 24" E
- 4) 36° 48' 35" N - 36° 06' 54" E

f) 5 (B) anchorage area: The anchorage area of FSRU, LNG ships is the sea area formed by the following coordinates.

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- 1) 36° 52' 00" N - 36° 05' 08" E
- 2) 36° 51' 20" N - 36° 06' 04" E
- 3) 36° 51' 20" N - 36° 04' 17" E
- 4) 36° 50' 37" N - 36° 05' 08" E

**C) Pilot captain pick-up and drop-off place**

- 1) 36° 37' 12" N – 036° 10' 00" E
- 2) 36° 40' 42" N – 036° 10' 30" E
- 3) 36° 46' 30" N - 036° 09' 36" E
- 4) 36° 48' 00" N – 036° 05' 00" E

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## 11.14 Emergency Response Equipment Against Marine Pollution in the Port Facility

As in the approved Emergency Response Plan against Marine Pollution

|  | NO | Birim | Miktar | Ekipmanlar  |
|--|----|-------|--------|---|
| <b>PPE / Kişisel Korumacı Donanım</b>          | 1  | Adet  | 1      | Type 1 Level A / Chemical Suits/Kimyasala Dayanıklı Elbise (Fully Encapsulated Chemical Suit/Pcode: 5303/T2000/FECS/L&XL) |
|  | 2  | Adet  | 1      | Type 3 Level B / Chemical Suits/Kimyasala Dayanıklı Elbise Chemical Resistant Suit/Pcode: 5303/T900/CRS/XL&L              |
|  | 3  | Adet  | 3      | Type 4 Level C / Chemical Splash Suits/Kimyasala Dayanıklı Elbise Pcode: 5303/M5000/CSS/L&XL                              |
|  | 4  | Adet  | 2      | SCOTT Sigma 2 SCBA /Solunum Seti (A ve B Suitler için) sigma-2 -ps (type 2) Seri No: A137139 & A137102                    |
|  | 5  | Adet  | 6      | SCOTT Tüp/Cylinder 300 Bar, 6 Lt. CYL 1640 Seri No: MQD103 & MQD094   |
|  | 6  | Adet  | 7      | Tam Yüz Maskesi/Full Face Mask  |
|  | 7  | Adet  | 7      | Tam Yüz Maske Filtresi/Full Face Mask Filter (ABECII)   |
| <b>Kurtarma Ekipmanları/Salvage Equipments</b> | 8  | Adet  | 1      | PVDF Advanced Sıvı Transfer Pompası/ Liquid Waste Pump  |
|  | 9  | Adet  | 1      | Kompressör 8 Bar 100 Lt   |
|  | 10 | Adet  | 1      | DARCY Acid Neutraliser/Asit Dengeleyici   |
|  | 11 | Adet  | 1      | DARCY Alkaline Neutraliser/Alkali Dengeleyici   |
|  | 12 | Adet  | 6      | DAMMIT® X Ready Varil Tıkaçı/Applicator Pack  |
|  | 13 | Adet  | 1      | Stoppit Seal / PU Silikon Bariyer/ PU Barrier ,Sarı/Yellow  |
|  | 14 | Adet  | 1      | DAMMIT® X Ready Antifreezeli Varil Tıkaçı/Applicator Pack   |
|  | 15 | Adet  | 1      | Polyethylene 4 Varillik Kurtarma Paleti/4 Drum Sump Pallet 485lt  |
|  | 16 | Adet  | 1      | Polietilen IBC Varil Kurtarma Paleti/Polly IBC Sump Pallet 1100lt   |
|  | 17 | Adet  | 1      | 4'lü Varil Kurt. Palet Dönüştürücü/Spillguard Pallet Conv. 330 lt   |
|  | 18 | Adet  | 1      | Varil Kurtarma Varili/Poly-Overpack Drum, Sarı/Yellow   |
|  | 19 | Adet  | 3      | Varil Güvenlik Tavası/Drum Safe Container/DRIP TRAY   |
|  | 20 | Adet  | 2      | MOST DECON Tank/Personel Yıkama Havuzu (200x200x40cm)   |
|  | 21 | Adet  | 1      | Bariyer Tamburu   |
|  | 22 | Mt.   | 350    | Markleen Bariyer (Şişme)  |
|  | 23 | Mt.   | 150    | Dolgu Bariyer   |
|  | 24 | Adet  | 1      | Yüzer Depolama Tankı (25 M3)  |
|  | 25 | Takım | 1      | Yüzer Depoloma Tamir Kiti   |
|  | 26 | Mt.   | 240    | Sorbent Boom ( 15 Cm X 3 M)   |
|  |    |       |        |   |















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|---|----|-------|--------|--------------------------------|
| Kurtarma Ekipmanları/Salvage Equipments | NO | Birim | Miktar | Ekipmanlar                     |
|   | 27 | Adet  | 2000   | Sorbent Pad                    |
|   | 28 | Top   | 10     | Sorbent Rulo Pad               |
|   | 29 | Adet  | 1      | Ecza Dolabı                    |
|   | 30 | Adet  | 4      | Yağmurluk                      |
|   | 31 | Adet  | 4      | Numune Kabı                    |
|   | 32 | Adet  | 5      | Kimyasal Eldiven Kısa Ce'li    |
|   | 33 | Çift  | 3      | Kimyasal Eldiven Uzun Ce'li    |
|   | 34 | Adet  | 5      | Tyvek                          |
|   | 35 | Top   | 1      | Güvenlik Şeridi                |
|   | 36 | Adet  | 1      | El Arabası                     |
|   | 37 | Adet  | 5      | Atık Toplama Kovası 10 Lt.     |
|   | 38 | Adet  | 2      | Kazma                          |
|   | 39 | Adet  | 2      | Kürek                          |
|   | 40 | Adet  | 1      | Fener Ex-Proff                 |
|   | 41 | Adet  | 4      | Can Yeleği (Spor Tip Ce'li)    |
|   | 42 | Adet  | 1      | Zincir                         |
|   | 43 | Adet  | 2      | Tambur Hyrolic Hortum          |
|   | 44 | Adet  | 1      | Most Kepçe                     |
|   | 45 | Adet  | 12     | Kimyasal Gözlük( Ce'li )       |
|   | 46 | Adet  | 2      | Kimyasal Çizme ( Ce'li )       |
|   | 47 | Takım | 1      | Tonoz Çapa 30 Kg. Takım        |
|   | 48 | Adet  | 10     | Atık Toplama Poşeti            |
|   | 49 | Adet  | 1      | Atık Toplama Ibs Tankı 1000 Lt |
|   | 50 | Adet  | 1      | Atık Toplama Varili 180 Lt     |
|   | 51 | Mt.   | 200    | Markleen Dolgu Bariyer         |














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### 11.15 Personal Protective Equipment (PPE) Usage Map

| PIER  |   |   |
|---|---|---|
| PPE   | PLACE   | SIGN  |
| Eyewash emergency system and body shower En 15154-1, En 15154-2 | Both end of the pier, CFS, entrance of railway level crossing |    |
| Portable eyewash solution                                       | Railway level crossing, next the security cabin               |    |
| full body protective safety belt for working high (EN 361)      | Technical service adm.  |    |
| Life buoy   | Pier  |    |
| Life jacket   | Pier  |    |
| Full face respirator En 136                                     | Railway level crossing, next the security cabin               |  |
| ABK type half mask respirator En 140                            | Railway level crossing, next the security cabin               |  |
| EEBD En 1146  | Railway level crossing, next the security cabin               |  |
| QC high emergency escape set En 341, En 1496                    | On MHC  |  |
| Chemical garment CAT III  | Railway level crossing, next the security cabin               |  |
| Full face respirator En 136                                     | Railway level crossing, next the security cabin               |  |
| Chemical gloves En 374  | Railway level crossing, next the security cabin               |  |
| Boot (Steel toe)  | Railway level crossing, next the security cabin               |  |
| Eye protective En 166   | For each person   |  |

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| CFS   |   |   |
|---|---|---|
| PPE   | PLACE   | SIGN  |
| Eyewash emergency system and body shower En 15154-1, En 15154-2 | Both end of the pier, cfs, entrance of railway level crossing |    |
| Portable eyewash solution                                       | Railway level crossing, next the security cabin               |    |
| Full body protective safety belt for working high (EN 361)      | Technical service adm.  |    |
| Full face respirator En 136                                     | Railway level crossing, next the security cabin               |    |
| ABK tip half mask respirator En 140                             | Railway level crossing, next the security cabin               |    |
| EEBD En 1146  | Railway level crossing, next the security cabin               |   |
| Chemical garment CAT III  | Railway level crossing, next the security cabin               |  |
| Full face respirator En 136                                     | Railway level crossing, next the security cabin               |  |
| Chemical gloves En 374  | Railway level crossing, next the security cabin               |  |
| Boot (Steel toe)  | Railway level crossing, next the security cabin               |  |
| Eye protective En 166   | For each person   |  |

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| MAINTANCE WORKSHOP  |   |   |
|---|---|---|
| PPE   | PLACE   | SIGN  |
| Eyewash emergency system and body shower En 15154-1, En 15154-2 | Both end of the pier, cfs, entrance of railway level crossing |    |
| Portable eyewash solution                                       | Railway level crossing, next the security cabin               |    |
| Full body protective safety belt for working high (EN 361)      | Technical service adm.  |    |
| Full face respirator En 136                                     | Railway level crossing, next the security cabin               |    |
| ABK type half mask respirator En 140                            | Railway level crossing, next the security cabin               |    |
| EEBD En 1146  | Railway level crossing, next the security cabin               |    |
| Chemical garment CAT III  | Railway level crossing, next the security cabin               |   |
| Full face respirator En 136                                     | Railway level crossing, next the security cabin               |  |
| Chemical gloves En 374  | Railway level crossing, next the security cabin               |  |
| Boot (Steel toe)  | Railway level crossing, next the security cabin               |  |
| Eye protective glasses En 166                                   | For each person   |  |
| Welding Mask En 169   | Technical service adm.  |  |

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## 11.16 Dangerous Cargo Incidents Notification Form

|  |  |
|--|--|
| <b>ASSAN LİMAN İŞLETMELERİ A.Ş.</b><br><b>“DANGEROUS GOODS INCIDENT NOTIFICATION”</b>  |  |
| <b>DATE:</b>   |  |
| <b>1. Time of the Incident :</b>   |  |
| <b>2. If the Incident is known, how it occurred and the reason:</b>  |  |
| <b>3. Place of the Incident (Port Facility and/or Vessel) Position and place of impact:</b><br>Vessel information involved in the Incident (name, flag, IMO no, owner, operated by, cargo and quantity, master of the vessel etc.),  |  |
| <b>4. Meteorological Conditions,</b>   |  |
| <b>5. UN number of the dangerous substance, proper transport name (based on the legislation specified in the definition of dangerous substance) and amount:</b><br><b>Hazard class of dangerous substance or sub-hazard division, (if any):</b><br><b>Packing group of the dangerous substance, (if any):</b><br><b>Additional risks of the dangerous substance, such as marine pollutants, (if any):</b><br><b>Sign and label details of the dangerous substance:</b><br><b>The characteristics and number of the package, cargo transport unit and container in which the dangerous substance is transported, (if any):</b><br><b>Manufacturer, sender, carrier and receiver of dangerous goods:</b> |  |
| <b>6. Extent of the damage/pollution:</b>  |  |
| <b>7. Number of dead and injured in the incident ( if any ):</b>   |  |
| <b>8. How the incident was managed/intervened with:</b>  |  |
| <b>9. Which organizations were requested to assist,</b>  |  |
| <b>10. Other ships or neighboring facilities that may be affected by the incident:</b>   |  |
| <b>FORM Prepared By:</b><br><br><b>Name, Surname :</b><br><b>Duty/Job Title :</b><br><b>Signature :</b>  |  |

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### 11.17 Control Results Notification Form for Dangerous Cargoes Transport Units (CTUs)

The form containing the CTU control results requested by the Administration to be sent quarterly to the port authorities is below.

| Yıl / Dönem   | .... / .... | Sayı | Yüzdelik |
|---|-------------|------|----------|
| <b>Kontrol edilen paketler:</b>                               |             |      |          |
| <b>Kusurlu paketler:</b>                                      |             |      |          |
| . toplam  |             |      |          |
| . yurt içinde doldurulmuş                                     |             |      |          |
| . yurt dışında doldurulmuş                                    |             |      |          |
| <b>Kusurlar:</b>  |             |      |          |
| Dokümantasyon:  |             |      |          |
| . Tehlikeli Yük Deklarasyonu                                  |             |      |          |
| . Konteyner/Araç Paketleme Sertifikası                        |             |      |          |
| Plakalama ve markalama  |             |      |          |
| Konteyner Güvenlik Sözleşmesi onay levhası                    |             |      |          |
| Ciddi yapısal kusurlar  |             |      |          |
| Kara tankerleri bağlama eklentileri                           |             |      |          |
| Taşınabilir tank veya kara tankerleri (uygunsuz veya hasarlı) |             |      |          |
| Etiketleme (paketler için)                                    |             |      |          |
| Paketleme (uygunsuz veya hasarlı)                             |             |      |          |
| Yükün segregasyonu  |             |      |          |
| Paketin içinin istiflenmesi / bağlanması                      |             |      |          |

|           |                                       |              |         |               |          |
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#### 11.18 Other Required Attachments

|           |                                       |              |         |               |          |
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**11.19 Dangerous Cargoes Handling Guide Additional Cargo Notification (When Necessary)**

The cargo notification that is not specified in the current Dangerous Cargoes Safety Guide of the facility and is planned to be handled at the facility is made to the relevant Port Authority by filling out the form below.

According to the code to which the load in question is subject and the attached safety data sheet, the coastal facility must indicate that there is equipment to be found in the facility, first aid, fire, safety, etc. to be obtained. must show that all necessary precautions have been taken and necessary updates have been made in the Dangerous Cargoes Safety Guide and other procedures.

|  |  |
|--|--|
| Uygun sevkiyat adı   |  |
| Varsa UN Numarası ve Class ID/Karakteristik tablosundaki gruplar |  |

|                                |  |  |
|--------------------------------|--|--|
| Yükün türü ve tabii olduğu kod | Tehlikeli Sıvı Dökme Yükler (Petrol ve Petrol Türevleri-MARPOL Ek-1) |  |
|                                | Tehlikeli Sıvı Dökme Yükler (Kimyasal ve Benzeri-IBC Kod)            |  |
|                                | Tehlikeli Sıvı Dökme Yükler (Sıvılaştırılmış Gaz-IGC Kod)            |  |
|                                | Paketli Tehlikeli Yükler (IMDG Kod)                                  |  |
|                                | Tehlikeli Katı Dökme Yükler (IMSBC Kod)                              |  |

Ek: Güvenlik Bilgi Formu (SDS)

**Tehlikeli Madde Güvenlik Danışmanı**

Ad/Soyad/İmza

**Kıyı Tesisi Yetkilisi**

Ad/Soyad/İmza

|           |   |              |         |               |          |
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## 12 ABBREVIATIONS

**ASTM:** American Society for Testing and Materials (ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA, 19428-2959, United States of America)

**ACEP:** Approved Continuous Examination Program

**CGA:** Compressed Gas Association (CGA, 14501 George Carter Way, Suite 103, Chantilly, VA 20151, United States of America)

**CCC:** IMO Sub-Committee on Carriage of Cargoes and Containers

**CSC:** International Convention for Safe Containers, 1972, as amended

**CTU Kod:** IMO/ILO/UNECE Code of Practice for Packing of Cargo Transport Units

**DSC:** IMO Sub-Committee on Dangerous Cargoes, Solid Cargoes and Containers

**ECOSOC:** Economic and Social Council (UN)

**EmS:** The EmS Guide: Emergency Response Procedures for Ships Carrying Dangerous Cargoes

**EN (standard):** European standard published by the European Committee for Standardization (CEN) (CEN, 36 rue de Stassart, B-1050 Brussels, Belgium)

**FAO:** Food and Agriculture Organization (FAO, Viale delle Terme di Caracalla, 00100 Rome, Italy)

**HNS Convention:** International Convention on Liability and Compensation for Damage in Connection with the Transport of Hazardous and Noxious Substances (IMO)

**IAEA:** International Atomic Energy Agency (IAEA, P.O. Box 100, A – 1400 Vienna, Austria)

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

**ICAO:** International Civil Aviation Organization (ICAO, 999 University Street, Montreal, Quebec H3C 5H7, Canada)

**IEC:** International Electrotechnical Commission (IEC, 3 rue de Varembe, P.O. Box 131, CH-1211 Geneva 20, Switzerland)

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

**ILO:** International Labour Organization/Office (ILO, 4 route des Morillons, CH-1211 Geneva 22, Switzerland)

**IMDG Code:** International Maritime Dangerous Cargoes Code

**IMGS:** International Medical Guide for Ships

**IMO:** International Maritime Organization (IMO, 4 Albert Embankment, London SE1 7SR, United Kingdom)

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

**INF Code:** International Code for the Safe Carriage of Packaged Irradiated Nuclear Fuel, Plutonium and High-Level Radioactive Wastes on board Ships

**ISO (standard) :** An international standard published by the International Organization for Standardization (ISO, 1, ch. de la Voie-Creuse, CH-1211 Geneva 20, Switzerland)

**ISPS Code:** International Ship and Port Facility Security Code

**MARPOL:** International Convention for the Prevention of Pollution from Ships, 1973, as amended by the 1978 and 1997 Protocols relating thereto

**MAWP:** Maximum allowable working pressure

**MEPC:** Marine Environment Protection Committee (IMO)

**MFAG:** Medical First Aid Guide for use in Accidents Involving Dangerous Cargoes

**MSC:** Maritime Safety Committee (IMO)

**N.O.S:** not otherwise specified

**SADT:** Self-accelerating decomposition temperature

**SAPT:** Self-accelerating polymerization temperature

**SOLAS:** International Convention for the Safety of Life at Sea, 1974, as amended

**UNECE:** United Nations Economic Commission for Europe (UNECE, Palais des Nations, 8–14 avenue de la Paix, CH-1211 Geneva 10, Switzerland)

**UN Number:** Four-digit United Nations number is assigned to dangerous, hazardous and harmful substances, materials and articles most commonly transported

**UNEP:** United Nations Environment Programme (United Nations Avenue, Gigiri, PO Box 30552, 00100, Nairobi, Kenya)

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**UNESCO/IOC:** UN Educational, Scientific and Cultural Organization/Intergovernmental Oceanographic Commission (UNESCO/IOC, 1 rue Miollis, 75732 Paris Cedex 15, France)

**WHO:** World Health Organization (Avenue Appia 20, CH-1211 Geneva 27, Switzerland)

**WMO:** World Meteorological Organization (WMO, 7bis, avenue de la Paix, Case postale No. 2300, CH-1211 Geneva 2, Switzerland)

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## 13 DEFINITIONS

**Interface**, means a dock, pier, breakwater, quay, wharf, marine terminal or similar structure (floating or not) to which a ship can be moored. This includes any facility or property other than a ship that is used directly or indirectly to load or unload dangerous cargo.

**Port facility** means any person or institution that controls the operation of a port on a daily basis.

**Bulk** means cargoes intended to be transported in a tank permanently fixed on or inside the Ship or without a bulkhead for storage in the cargo area that is a structural part of a ship.

**Cargo Companies** means a shipper, carrier, forwarder, groupage agent, packing center or any person, company or entity involved in any of the following activities: Receiving cargoes in port, transporting them by sea and always having control over the cargo in relation to the identification, containment, packing, packaging, securing, labeling, placarding or documentation of dangerous cargoes.

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

**Dangerous cargoes**, within the scope of the following documents, means any of the following cargoes, whether they are packaged, packaged or transported in bulk:

- 1) Petroleum and petroleum products included in the International Convention for the Prevention of Pollution of the Seas by Ships (MARPOL) 73/78 Annex I, Attachment 1,
- 2) Packaged goods and objects given in IMDG Code Chapter 3,
- 3) Among the cargoes given in IMSBC Code Attachment 1, the bulk cargoes with "B" and "A and B" expressions in the group box in the characteristic table,
- 4) Liquid substances with the phrase "S" or "S/P" in the "d" column titled "hazards" of the table given in Chapter 17 of the IBC Code,

The term **Dangerous Cargoes** also includes any uncleaned packaging that has previously been transported dangerous cargo (tank-container casing, bulk compartment intermediate containers) if it has been filled with a substance that is not classified as dangerous or has been purged of gases to neutralize any dangerous cargoes and if the residues of the dangerous cargoes have not been sufficiently removed (IBCs), bulk packagings, portable tanks or tank vehicles).

**Certificate of Conformity** means a document issued by or on behalf of the Administration to a ship carrying dangerous cargos in bulk in solid form or in packaged

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form under SOLAS regulation II-2/19.4, which proves that the structure and equipment comply with the requirements of the regulation.

**Flexible conduit** refers to flexible hose and end connections containing sealed end means used for the transfer of dangerous cargoes.

**Handling**, including interim holding operations such as the temporary storage of dangerous cargoes in the port area during their transport from the point of origin to the destination route for the purpose of changing the means and methods of transport and movement within the port, which forms part of the transport supply chain for cargoes, and from a ship, rail car, vehicle, freight This includes loading or unloading from a container or other means of transport, intermediate transport between ships or other modes of transport, or transfer within a ship or at a warehouse or terminal area. This term has been expanded to cover all operations related to dangerous cargoes in the port area.

**Hot work** means any open fire and flame, power tools or hot rivets, grinding, welding, burning, cutting, welding or other repair work involving heat or causing sparks, which may become dangerous due to the presence or proximity of dangerous loads.

**Captain** means the person in command of a ship. Pilot not included.

**Packing** refers to the packaging, loading and loading of dangerous cargoes to recipients, intermediate containers for bulk transport (IBCs), freight containers, tank containers, portable tanks, railroad wagons, bulk containers, vehicles, ship barges or other cargo transport units.

**Pipeline** means all pipes, connections, valves and other auxiliary facilities, apparatus and equipment in a port related to or used for the loading of dangerous cargoes, but any pipe, apparatus or equipment of the ship excluding the ends of the parts of the pipe, apparatus or equipment of the ship to which the flexible pipes are connected. shall not include the piece of equipment, the flexible pipe, the loading arm.

**The port area** means the land and sea area determined by the legislation.

Note: Some port areas may overlap and legal requirements must be taken into account. When establishing the definition of the port area in legal regulations, care must be taken to ensure that the law applies to all facilities that may be involved.

**Port Authority** means any person or institution authorized to implement effective control in the port area.

**Administration/Administrations** means the national, regional or local administration that has the authority to enforce the statutory requirements and is empowered to enforce the legal requirements in relation to a port area.

**Person Responsible** means a master of a ship or a person appointed by a shore-side employer who is certified or otherwise recognized by the Regulatory Authority as

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required, has sufficient knowledge and experience for that purpose, and is empowered to make all decisions regarding a specific assignment.

**Ship** means any watercraft, whether or not suitable for seagoing, used for the carriage of dangerous cargoes, including those used in inland waters.

**Ship's Stores** means materials on board for the maintenance, containment, safety, use or navigation of the ship (excluding fuel and compressed air used for the ship's primary propulsion machinery or fixed auxiliary equipment) or for the safety or comfort of the ship's passengers or crew.

It is stated that the ship's stores contain these items, including those for the comfort of passengers and crew, that a ship may need for its normal operation, but not those items that a ship may carry for the performance of its specialist functions, eg. explosives carried by a deep-sea rescue vessel or dangerous cargoes used by a well propulsion vessel.

**Responsible Person** means a person who has up-to-date knowledge, experience and competence to perform a specific task.

**Stacking** means the positioning of packages, intermediate bulk containers (IBCs), freight containers, tank containers, portable tanks, bulk containers, vehicles, onboard barges, other cargo transport units, and bulk cargoes on the ship's deck, holds, sheds or other areas. is coming.

**Shipping** means moving in port areas by one or more means of transport.

**Unstable Substance** means a substance that, due to its chemical structure, tends to polymerize or otherwise give dangerous reactions under certain temperature conditions or when in contact with a catalyst. Reducing this tendency can be accomplished through special shipping conditions or by using sufficient quantities of chemical inhibitors or stabilizers in the product.

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## 14 PRESENTATION

This guide is valid for the entry and presence of dangerous cargoes in terms of port, both on board and on store. These are intended to be made applicable to all ships visiting a port, regardless of their flag. It should not be applied to ships' stores and equipment, or to troop transports and warships.

The purpose of this section is to help the person and institutions drafting national legal requirements to ensure that such requirements are made as effective as possible by specifying all possible situations of dangerous goods in cargo areas, but without validating.

It is important that definitions are carefully studied and used to avoid misunderstanding.