



SAMSUNPORT PORT FACILITY DANGEROUS GOODS SAFETY GUIDE



PREPARATION DATE: 20.06.2018
(Refer to the Revised Page)

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REVISION PAGE

Ser. Nu	Rev. Nu	Revision Contents	Revision Date	Revision Author	
				Name Surname	Signature
1	01	1.1 General Information of Port Facility in Turkish Form has been revised.	18.06.2018	Oğuz Tümiş	
2	02	1.2.1.1. “some of the cargo with PG I” deleted. The cargos in TDC Code added.	18.06.2018	Oğuz Tümiş	
3	01	1.2.1.2.2 Item 8 “interaction by neighbour facilities” deleted.	18.06.2018	Oğuz Tümiş	
4	01	1.3.1.3 “MSDS” corrected as “SDS”	18.06.2018	Oğuz Tümiş	
5	01	1.3.1.8 “These containers are taken to the general or private warehouses in accordance with the qualifications” deleted.	18.06.2018	Oğuz Tümiş	
6	01	1.3.2.6 “berth operator” corrected as “operations clerk”.	18.06.2018	Oğuz Tümiş	
7	01	1.3.3.3 instead of “berth operator”, “shift supervisor” used.	18.06.2018	Oğuz Tümiş	
8	01	1.3.4.7 instead of “in IMO yard where just necessary precautions are taken” “in the fields with power connections” used.	18.06.2018	Oğuz Tümiş	
9	01	1.3.6.1 the word “interface” deleted.	18.06.2018	Oğuz Tümiş	
10	01	1.3.7; 1.3.7.2, 1.3.7.3, 1.3.7.4 corrected as subtitles. 1.3.7.5, 1.3.7.5 and 1.3.7.7, 1.3.7.2 corrected as 1.3.7.3 and 1.3.7.4.	18.06.2018	Oğuz Tümiş	
11	01	1.3.7.3 “cargo office and interface” deleted.	18.06.2018	Oğuz Tümiş	
12	01	1.3.7.4 “berth operator” corrected as “terminal operator”.	19.06.2018	Oğuz Tümiş	
13	01	1.3.8.1 in subtitle 5 “CFS Supervisor” corrected as “container yard clerk”; in subtitle 6 “it is like in chapter 4” deleted; in subtitle 9 instead of “in IMO yard” “in the fields with power connections” used and “it will be monitored by camera systems” deleted; in subtitle 10 “IMO yard” deleted.	19.06.2018	Oğuz Tümiş	
14	01	1.4 “storage can only be carried out with the necessary precautions and with the permission of the competent authorities” added.	19.06.2018	Oğuz Tümiş	

15	01	1.4.1.5 “berth operator” corrected as “operations clerk”.	19.06.2018	Oğuz Tümiş	
16	01	1.4.2.2 “Dangerous Goods Responsible” added.	19.06.2018	Oğuz Tümiş	
17	01	1.4.2.7 (IMSBC Code) added.	19.06.2018	Oğuz Tümiş	
18	01	1.4.4.1 instead of “BC Code” “IMSBC Code” used.	19.06.2018	Oğuz Tümiş	
19	01	1.4.11.2 4.2 “spontaneously combustible substances” corrected.	19.06.2018	Oğuz Tümiş	
20	01	Between 1.5.1. and 1.5.12 deleted. 1.5.1 and 1.5.2 revised.	20.06.2018	Oğuz Tümiş	
21	01	1.6 “Procedure of safely handling operations of radioactive substances” corrected as “Procedure of handling radioactive substances”.	20.06.2018	Oğuz Tümiş	
22	01	Between 1.6.1 and 1.6.5 deleted. 1.6.1 revised as “General”	20.06.2018	Oğuz Tümiş	
23	01	1.7 “Procedure of safely handling operations of infectious substances” corrected as “Procedure of handling infectious substances”.	20.06.2018	Oğuz Tümiş	
24	01	1.7.1 and 1.7.2 deleted. 1.7.1 revised as “General”.	20.06.2018	Oğuz Tümiş	
25	01	2.2.1 and 2.2.2 combined.	20.06.2018	Oğuz Tümiş	
26	01	3.3 and 3.3.1 word of “labeling” deleted.	20.06.2018	Oğuz Tümiş	
27	01	3.7.1.1. and 3.7.1.5 word of “interface” deleted.	20.06.2018	Oğuz Tümiş	
28	01	3.9.6 “Additionally, these actions shall be applied for the piping line used during the handling of hazardous materials and for areas with conveyor system” expression deleted.	20.06.2018	Oğuz Tümiş	
29	01	Samsunport logos renewed	22.06.2018	Oğuz Tümiş	
30	01	3.11.4 Port Administrative corrected as “Port Authority”.	22.06.2018	Oğuz Tümiş	
31	01	3.15.3 The measures of Fumigation Signs corrected.	22.06.2018	Oğuz Tümiş	
32	01	3.22.8.1 “must not” corrected as “do not”.	22.06.2018	Oğuz Tümiş	
33	01	3.27.1.1 instead of “established” “there is...” used.	22.06.2018	Oğuz Tümiş	
34	01	3.27.1.3 title “there is no closed depot where DG are stored” olarak düzenlenmiştir.	22.06.2018	Oğuz Tümiş	

35	01	3.27.5.1 “expression of cargo transport unit” corrected.	22.06.2018	Oğuz Tümiş	
36	01	3.27.6 “”It must be equipped” corrected as “it has been equipped”. “If exemted, related establishments should be informed.	22.06.2018	Oğuz Tümiş	
37	01	3.27.7.1 “ISPS Code Security Training” deleted.	22.06.2018	Oğuz Tümiş	
38	01	3.27.7.2, 3.27.7.3 and 3.27.7.4 titles added.	22.06.2018	Oğuz Tümiş	
39	01	4.1.2 corrected as Class 5.1 “Oxidizing Substances” and Class 7 “Radioactive Materials”.	22.06.2018	Oğuz Tümiş	
40	01	4.2 figures deleted and last two paragraphs added.	22.06.2018	Oğuz Tümiş	
41	01	4.3 Label and Placard figures and measures added.	22.06.2018	Oğuz Tümiş	
42	01	4.3.1 The last two sentences deleted.	22.06.2018	Oğuz Tümiş	
43	01	4.3.2 Tables updated. 9a added. Limited Quantity, Excepted Quantity and Fumigation signs added. Orange placards deleted.	22.06.2018	Oğuz Tümiş	
44	01	4.4.1 Dangerous classes with no PG corrected. Last paragraph added.	22.06.2018	Oğuz Tümiş	
45	01	4.4.2 Last paragraph added.	22.06.2018	Oğuz Tümiş	
46	01	4.5.2 “sleep, meal” words deleted. “For the classes between 2 and 9” added. Stowage Category Table renewed. For Class 1 stowage category table added.	22.06.2018	Oğuz Tümiş	
47	01	4.6.1 7.2.4 table updated.	22.06.2018	Oğuz Tümiş	
48	01	4.6.3 Stowage in terminal table updated.	22.06.2018	Oğuz Tümiş	
49	01	4.7.3 Last paragraph added.	22.06.2018	Oğuz Tümiş	
50	01	5 Dangerous Goods Manuel’s front and back pages added.	22.06.2018	Oğuz Tümiş	
51	01	6.4.1 “IMO” corrected as “Fumigation”	23.06.2018	Oğuz Tümiş	
52	01	7.1 INF Code, TDC, IBC ve IGC publications deleted.	23.06.2018	Oğuz Tümiş	
53	01	7.1.2 instead of “will create” and “will keep”, “is getting created” and “is getting kept” used.	23.06.2018	Oğuz Tümiş	

54	01	7.2.1 “It can be seen on TOS simultaneously” and “it can be seen in container history” sentences added.	23.06.2018	Oğuz Tümiş	
55	01	7.2.2 “Information on hazardous substances is requested and filed with SDS” added.	23.06.2018	Oğuz Tümiş	
56	01	7.2.3, 7.2.4, 7.2.5 and 7.2.6 deleted.	23.06.2018	Oğuz Tümiş	
57	01	7.3.5 “Dangerous cargo operations are carried out according to IMDG Code rules” added at the end.	23.06.2018	Oğuz Tümiş	
58	01	7.5.1, 7.5.2, 7.5.3 and 7.5.4 deleted and paragraph added.	23.06.2018	Oğuz Tümiş	
59	01	8.1 Information and the pictures about Emergency Response Guide deleted.	23.06.2018	Oğuz Tümiş	
60	01	8.2 Added basic information about Emergency (all 8.2 till 8.2.1)	23.06.2018	Oğuz Tümiş	
61	01	8.3.1 ISGOTT deleted.	23.06.2018	Oğuz Tümiş	
62	01	8.4 First sentence added.	23.06.2018	Oğuz Tümiş	
63	01	8.5.2.2 “Report form as free form...” deleted; instead FR.106 will be used.	23.06.2018	Oğuz Tümiş	
64	01	8.7.1 revised completely.	23.06.2018	Oğuz Tümiş	
65	01	8.7.2 Last two paragraph deleted.	23.06.2018	Oğuz Tümiş	
66	01	8.11.3 deleted (sprinkler installation)	23.06.2018	Oğuz Tümiş	
67	01	8.11.5.1.1, 8.11.5.2.1 and 8.11.5.3.1 deleted.	23.06.2018	Oğuz Tümiş	
68	01	8.13 “not available” added.	23.06.2018	Oğuz Tümiş	
69	01	Between 9.1.1.2.1. and 9.1.1.2.8 title numbers changed as bullets; “MSDS” corrected as “SDS”.	23.06.2018	Oğuz Tümiş	
70	01	Between 9.1.1.5.1. and 9.1.1.5.12 title numbers changed as bullets.	23.06.2018	Oğuz Tümiş	
71	01	9.1.1.13 deleted.	23.06.2018	Oğuz Tümiş	
72	01	Between 9.1.3.1.1. and 9.1.3.1.5 title numbers changed as bullets.	23.06.2018	Oğuz Tümiş	
73	01	10.1.1 and 10.1.2 added.	23.06.2018	Oğuz Tümiş	
74	01	10.3.1 and 10.3.2 revised completely; 10.3.3 deleted.	23.06.2018	Oğuz Tümiş	
75	01	Between 9.4.1.1.1. and 9.4.1.1.7 title numbers changed as bullets.	23.06.2018	Oğuz Tümiş	

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1. ENTRY

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.

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.

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.


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.

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.

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.

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.

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 **(Restricted)**

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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 1 explosives (save Class 1.4), 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. The safety rules specified in this guideline will be applied if these cargoes are handled. 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 and timber and wood cargo within the scope of TDC Code are handled at the cereal port facility. 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.

1.2.1.2 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.

1.2.1.3 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, yard 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.

1.2.1.4 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

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.

1.2.1.5 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.

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

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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 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” 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 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.

1.3.2.5 The shift supervisor 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 operations clerk, steersman and chief officer of the ship. Operations clerk 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 operations clerk.

1.3.3 Roro

1.3.3.1 A parking area has been determined for the cargo transport units which transport the dangerous cargoes from the port facility. Required segregation of dangerous cargoes according to their classes will be carried out at this area.

1.3.3.2 The loading operation will be carried out in line with the approved loading plan of the chief officer of the ship. The cargo carrying units containing dangerous cargoes should be specified in the plan and actions will be taken as per the required segregation rules. Loading will be done under the supervision of chief officer of the ship and the ship personnel and the responsibility will be borne through the responsible staff of the ship.

1.3.3.3 The approved ship evacuation plan will be given to the shift supervisor by the chief officer for the evacuation operation. Cargo carrying units are unloaded to the port from the ramp of the ship in line with evacuation plan under the supervision of the ship personnel. Cargo carrying units having dangerous cargoes will either be taken directly outside the port facility or to the specified dangerous cargo place within the port.

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1.3.4 Requirements

1.3.4.1 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.

1.3.4.2 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.

1.3.4.3 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.

1.3.4.4 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.

1.3.4.5 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.

1.3.4.6 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.

1.3.4.7 Cargo transport units transporting temperature-controlled dangerous materials can only be stored in the fields with power connections. The temperature values of the cargo transport units will be followed up constantly and also be remotely monitored as much as applicable.

1.3.4.8 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. CTUs containing dangerous materials could be stored in open areas if they are not affected from factors like rain, sea water and etc.

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1.3.5 Documentation

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

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

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

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

1.3.6 Supervision

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

1.3.6.2 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.

1.3.7 Information for operational and emergency purposes

1.3.7.1 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:

- The description of dangerous cargoes in accordance with Chapter 5.4 of the IMDG Code;
- Details of special equipment needed for the safe handling of a particular dangerous cargo; and
- 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.

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

1.3.7.3 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, at the berth in a place which is easily accessible by the responsible people:

- 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.
- 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.

1.3.7.4 Operations clerk will be responsible of keeping record of positioning of dangerous materials being transported on the ship or in port facility and the operations clerk will notify the duties in writing. Operations clerk 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.

1.3.8 General handling precautions

1.3.8.1 Terminal operator within its respective areas of responsibility, should ensure that:

- Every person engaged in the handling of dangerous cargoes exercises reasonable care to avoid damage to packages, unit loads and cargo transport units.
- Whilst dangerous cargoes are being handled, precautions are taken to prevent unauthorized access to handling areas.
- 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.
- 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.
- 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). 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.

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- 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.
- 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.
- Cargo transport units by which dangerous materials with temperature control are transported will be stored in the fields with power connections 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.
- 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 yard by considering the related rules. In other cases, it will not be allowed to handle and let them enter the port facility.

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

Loading or unloading of solid dangerous cargoes will be made direct delivery plan at the berths within our port facility.

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 supervisor 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 operations clerks.

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.

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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 Requirements

1.4.2.1 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.

1.4.2.2 Issues as regards additional safety precautions to be taken at the port facility and these precautions will be provided by the Dangerous Goods responsible and/or operations department.

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

1.4.2.4 Electrical 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.

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

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

1.4.2.7 Water balls should be place in vicinity of areas where dangerous materials like coal (in the scope of IMSBC Code), 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.

1.4.2.8 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.

1.4.2.9 The master who will load/unload the solid bulk dangerous cargoes will receive the detailed loading or unloading plan which includes details as to the position and quantity of the cargo in the ship from the berth operator prior to the beginning to loading or unloading process. An agreement shall be reached between the master and the berth operator as to the said loading or unloading plan.

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1.4.2.10 The master and the berth operator will ensure, within their respective areas of responsibility, that operations regarding transport, handling or loading or unloading of solid bulk dangerous cargoes are done in accordance with “International Maritime Solid Bulk Cargo Code (IMSBC Code)”, “the Code of Practice for the Safe Loading and Unloading of Bulk Carriers (BLU Code)”, “Legislation on Safe Loading and Unloading of Bulk Carriers” promulgated in Official Gazette dated 31.12.2005 number 26040 and “Manual on Loading and Unloading of Solid Bulk Cargoes for Terminal Representatives (IMO MSC/Circ.1160, MSC/Circ.1230 and MSC.1/Circ.1356)”.

1.4.3 Documentation

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

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

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

1.4.4 Responsibility for compliance

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

1.4.5 Emission of harmful dusts

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

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

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1.4.6 Emission of dangerous vapor/oxygen deficiency

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

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

1.4.7 Emission of explosive dusts

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

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

1.4.8 Spontaneously combustible substances and substances that react with water

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.

1.4.9 Oxidizing substances

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

1.4.10 Incompatible materials

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

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

1.4.11.1 Group A cargo (liquefiable cargo)

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

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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.

1.4.11.2 Group B cargoes (which possess a chemical hazard)

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

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

Dangerous goods in solid form in bulk

In the Code these cargoes are classed as follows:

Class 4.1 : Flammable solids

Class 4.2 : Substances liable to spontaneous combustion

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

Class 5.1 : Oxidizing substances

Class 6.1 : Toxic substances

Class 7 : Radioactive materials

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

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.

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

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

Examples of Group C cargoes

Iron ore and high density cargoes

Sand and fine particle materials

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

Cement

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

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1.5 Safe handling operation of explosives

1.5.1 General

If the administration is not required to handle explosive options within the context of the Directive, the explosive location must be handled at the facility on the beach. Within this scope, to ensure that the vessels carrying the transit cargo of explosives in our coastal facility, which does not have the permission to handle explosives, shall be carried out together with the relevant port authority, provided that the explosive is not landed at the facility.

1.5.2 Explosives in class 1, division 1.4, compatibility group S

The handling of explosives with Class 1 Division 1.4 and Compatibility Group S is subject to the permission of the Port Authority at our coastal facility where explosive handling is not permitted.

If transported in containers, this type of explosives can be handled or stored within the port, exempted from the marking rules under Section 5 of the IMDG Code.

1.6 Procedure of handling of radioactive materials

1.6.1 General

The handling of explosives at the terminal is prohibited, unless the administration is authorized to handle radioactive substances under the Directive. In this context, in our terminal where there is no radioactive material handling permit, ships carrying radioactive materials as transit cargo shall be approached with the permission of the relevant port authority, provided that such radioactive materials are not discharged to the terminal.

However, in case of temporary storage of radioactive materials in coastal facility due to force majeure, a special area shall be announced where necessary safety and security measures are taken. Terms will be determined by DGSA.

1.7 Procedure of handling infectious substances

1.7.1 Genel

The handling of infectious substances at terminal is prohibited, unless the administration has given the necessary authorization for the handling of infectious substances under the Directive. In this context, vessels carrying infectious substances as transit cargo shall be berthed with the permission of the relevant port authority, provided that such infectious substances are not landed at the coastal facility.

However, in case of temporary storage of infectious substances in the coastal facility due to force majeure, a special area shall be announced where necessary safety and security measures are taken. Terms will be determined by DGSA.

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2 RESPONSIBILITIES

All parties within the dangerous goods transportation activities are obliged to take all necessary measures to transport safely, securely and environmentally friendly, to avoid accidents and to reduce the damage as little as possible, if an accident occurs.

2.1 Responsibilities of the relevant person of the goods

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

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

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

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

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

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

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

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

2.2 Responsibilities of the port facility operator

2.2.1 Ensure appropriate, secured, safely land and connection and proper and safe entrance-exit system between the ship and shore.

2.2.2 Provide training for personnel working in loading, unloading and handling operations of the dangerous goods.

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

2.2.4 Request all necessary documents relating to dangerous goods from the relevant person of the cargo and ensure its availability with the cargo.

2.2.5 Keep an updated list of all dangerous goods in the business field.

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

2.2.7 Check the documents regarding to appropriate identification of hazardous substances delivered to the facility, correct use of shipping names of dangerous cargo, certification, packaging, labeling and declaration, inspection on loading and transport of dangerous goods in the certified and proper package, container or cargo unit in a safety way and reporting of inspection results.

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

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

2.2.10 Inform the port authority on the dangerous goods accidents occurring in the area of responsibility.

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

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

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2.4 Responsibilities of the Dangerous Goods Safety Adviser

2.4.1 Follow the compliance with the requirement to the transport of the dangerous goods..

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

2.4.3 Prepare an annual report on the dangerous goods 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;

2.4.4.1 Procedures regarding to appropriate identification of hazardous substances delivered to the facility, correct use of shipping names of dangerous cargo, certification, packaging, labeling and declaration, inspection on loading and transport of dangerous goods in the certified and proper package, container or cargo unit in a safety way and reporting of inspection results..

2.4.4.2 Loading / unloading evacuation procedure related to handled and temporary dangerous goods,

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

2.4.4.4 Control methods of transport equipment used in loading and unloading of hazardous substances,,

2.4.4.5 Including the amendments to the legislation, to check that whether the 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 goods.,

2.4.4.7 Convenience of the reports prepared on the serious accidents, incidents or serious infringements occurring during the transport, loading and unloading of the dangerous substances,

2.4.4.8 Determine the necessary precautions for the possibility of the re-occurrence of the accidents, incidents or serious violations and evaluation of the practices,

2.4.4.9 Check what extent the requirements of the transport of the dangerous good are considered among the selection of the 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 goods according to the seasonal conditions.

2.4.4.15 Procedures on fumigation, gas metering and degasification operations. Procedures on keeping records and statistics of hazardous materials,

2.4.4.16 Accuracy of the matters related to the ability and capacity of the port facility for respond to emergencies,

2.4.4.17 Convenience of the regulations for early intervention for accidents involving hazardous substances,

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2.4.4.18 Procedures on handling and disposal of damaged dangerous goods and wastes contaminated with dangerous goods,

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

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

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

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

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

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

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

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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, 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, 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;

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;

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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 master 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 master 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.

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

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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.

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.

3.9.7 The capability to remove any contaminated bilge water, dirty ballast, sludge, slop 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;

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

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

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

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

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

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

3.13 Hot work and other repair or maintenance work

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

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

3.13.3 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.

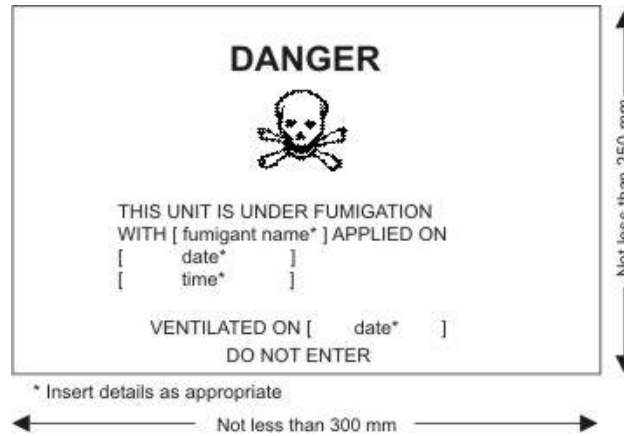
3.14.3 The port operator should ensure that entry into a space follows carefully established procedures which are contained in international codes and guides.

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. Recommendations on the Safe Use of Pesticides on Ships Contains a warning sign for fumigated vessels, ship compartments, cargo containers, and fuel vessels. The IMO / ILO / UN ECE Guidelines for the Packaging of Freight Transport Units (CTUs) are included.

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 goods 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 ir.

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 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.

3.22.9 Protections against weather

3.22.9.1 Packages containing dangerous goods 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 goods 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.

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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 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 port area for direct shipment or delivery if permitted by the regulatory authority.

3.24.2 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.

3.24.3 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:

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

3.25.3 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:

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

3.26.5 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:

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

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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:

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

3.26 Communications

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 there is no closed depot where DG are stored.

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

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.

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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 ekir.

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

Facilities has been equipped for the reception and disposal of bilge water, wastes, ballast and slops, contaminated with dangerous cargoes, as appropriate.

3.27.7 Training

3.27.7.1 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 in line with their job descriptions and fields of work.

3.27.7.2 The IMDG Code training, which is mandatory by the administration, has been given to all yard workers and other employees who are obliged to work in areas with dangerous cargoes.

3.27.7.3 Newly recruited personnel will receive IMDG Code General Awareness and Task trainings within 3 months at the latest.

3.27.7.4 Subcontractor or subcontractor employees who will work temporarily in the port area for a certain period of time must have received IMDG Code training as well.

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

4.1 Classification of Dangerous Goods

4.1.1 Types of Dangerous Goods

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

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

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

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

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

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

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

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

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

4.1.2 Classification of Dangerous Goods

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

Class 1: Explosives

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)			

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

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4.2 Dangerous Goods 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).

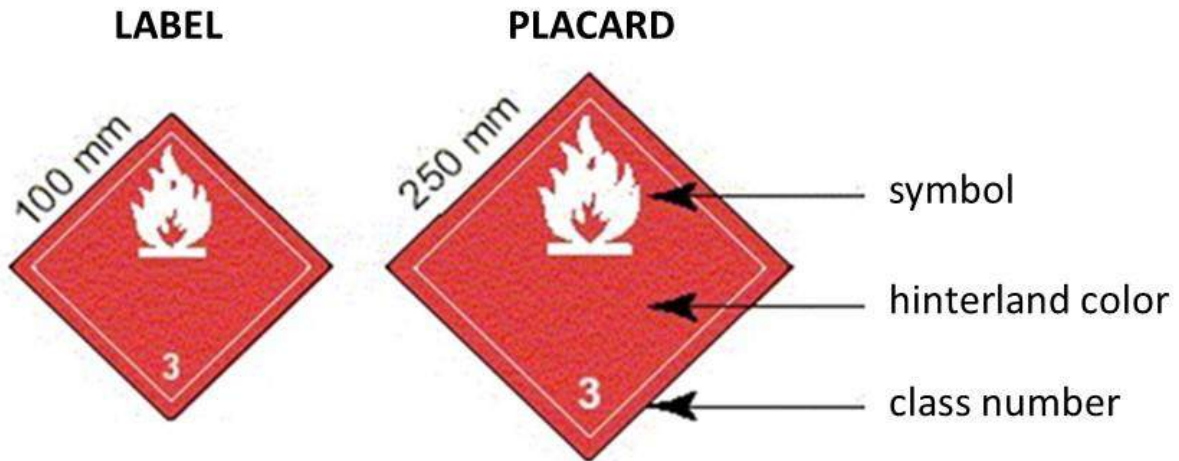
The code specifies clearly that no person may offer to transport dangerous goods unless the goods are properly marked, labeled, placarded, described and certified on a document. Those who are transporting dangerous goods must indicate the UN Number and proper shipping name clearly on the consignment.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

Dangerous cargoes to be delivered to the port facility will be packaged and packaged under IMDG Code Section 4.

All packagings containing dangerous goods must have the United Nations (UN) Type Approval, even if they are in any Cargo Transport Unit (CTU).

4.3 Dangerous Goods Marking, Labels, Placards.

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



4.3.1 Labels

The IMDG Code states that all packaging, packages and drums carrying dangerous goods must be labeled. The labels are in the shape of a rhombus in white, orange, blue, green or red, or a combination of these colors. Symbols illustrating the danger of the class are also required.

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In general, each label is divided into two parts, the bottom half and the top half. The top half is for the symbol of the class of the good(s), and the lower half is for the text, class or division number. The minimum dimensions of labels are 10 cm x 10 cm. Labels must be firmly adhered to and placed on the package so that it can easily be seen. The quality of the labels must be such so they do not deteriorate outdoors and remain unaltered during the complete transport period and at least three months in the sea.

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



4.3.2 Placards

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

- Containers carrying dangerous goods must display at least one placard on each side and one on each end of the unit (this is to say, on its four sides)
- Rail wagons must be placarded on at least both sides
- Freight containers, semi-trailers and portable tanks must be placarded on all four sides
- Road vehicles must display appropriate placards on both sides as well as the rear.




Shapes and Colors of Labels and Placards

Class 1 – Explosives


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

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Class 2 – Gases

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

Class 3 – Flammable Liquids



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

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Class 5 – Oxidizing Substances or Organic Peroxides

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

Class 6 – Toxic Substances or Infectious Substances


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

Class 7 – Radioactive Materials



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

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Class 8 – Corrosive Substances

	<p>Symbol – Liquids falling from two test tubes onto a hand and a black piece of metal</p> <p>Background – Upper half in white color and lower half in black with white borders</p> <p>Text – Corrosive (optional)</p> <p>Number 8 – In the bottom corner</p>
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Class 9 – Miscellaneous Dangerous Substances and Articles Potentially Damaging to the Environment

	<p>Symbol – seven vertical bars in black in the upper half</p> <p>Background – in white color</p> <p>Number 9 – In the bottom corner</p>
	<p>Symbol – seven vertical bars in black in the upper half</p> <p>Bottom Half: 4 pieces of batteries standing, one is lying and burning.</p> <p>Background – White color</p> <p>Number 9 – In the bottom corner</p> <p><i>Used just on the packages as label, not used on the CTUs as placard.</i></p>

Other Labels:

- **Placards for Marine Pollutants**



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

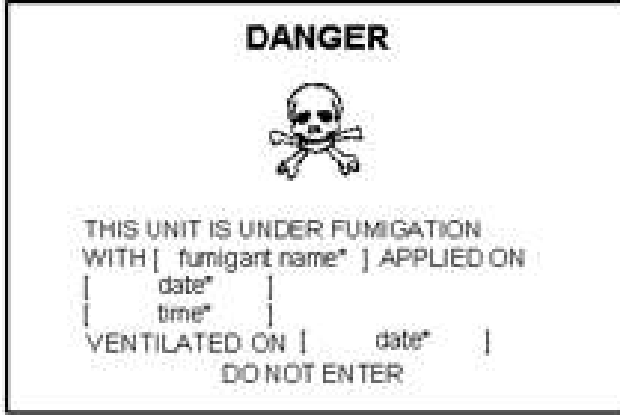
- **Dangerous Goods carried by high temperatur**



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)

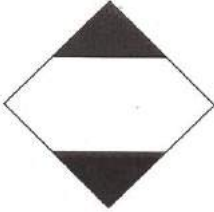
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- **Fumigation Warning Sign**



* Insert details as appropriate.

- **Limited Quantities**

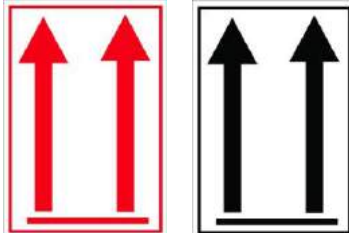


- **Excepted Quantities**



A maximum of 1,000 packages can be transported as shown in the table in section 3.5 of the categories (E0 to E5) of column 7b of the IMDG Code Volume II Dangerous Goods List. Where this label is applied, the sender part ** must be written in place and in the hazard class of the product *.

- **Orientation Arrows**



Black and red orientation arrows indicate how packages should be stacked and loaded.

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4.4 Packaging and Approval Marking

4.4.1 Packing Groups, Classifying Criteria

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

The packages/containers must comply with the following requirements:

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

Packaging Groups (PG) are available for different classes of dangerous goods. These groups and their meanings are as follows:

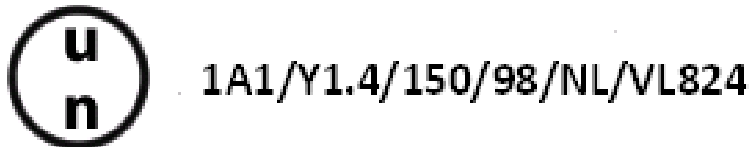
- Packing Group I – High level of danger
- Packing Group II – Medium level of danger
- Packing Group III – Low level of danger

However, there is no packing group for Class 1, 2, 5.2, 6.2, 7 and self-reactive substances of 4.1, and there is no PG I for Class 9.

The letters X, Y and Z in the UN type approved packaging codes to be carried for the dangerous goods determine the strength of the packaging. The letter X is the most durable packaging and can be used for all Packaging Groups. The letter Y is medium-strength packaging and can be used for Packaging Groups II and III, and the Z is least resistant packaging and should only be used for Packaging Group III.

4.4.2 UN Ambalaj ve Onay İşareti

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:



However, as mentioned in the IMDG Code training, the information on this code must be appropriate to the cargo in the package. If any of the cargo does not meet the values stated in the Safety Data Sheet, the defective packaging is deemed to have been made and the package must be replaced and repackaged with a suitable packaging for the cargo.

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4.5 Segregation and Separation

One of the most important aspects of managing the transport of dangerous goods is the stowage, segregation and separation of these goods. Hazardous substances must not be carried with goods which are liable to interact and cause danger 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 goods may result in the release of toxic fumes, fire, spill and degradation of the product's quality. For this reason the IMDG Code has provided provisions in Volume 1 Part 7 titled "Provisions Concerning Transport Operations", which focuses on stowage and segregation.

4.5.1 Principles of segregation and stowage

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

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

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

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

4.5.2 IMDG Code segregation, stowage and Dangerous Goods List

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

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

If the substances are shipped under entries otherwise specified (N.O.S.), the consignor shall decide for the appropriate separate storage group.

In the Volume 2 of the IMDG code under column 16 of the numerical list of dangerous goods, the stacking conditions for each of the dangerous goods may be listed. In addition, solutions and mixing areas in this column, etc. For example; In the column 16 for ALİL BROMURE UN No 1099 ", the phrase" Category B, keep away from living areas "is stated.

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The following IMDG Code stipulates the Stacking Categories for Class 2 to 9 dangerous goods.

Stowage Categories

Category	A	B	C	D	E
Cargo ship carrying no more than 25 passengers	On deck or below deck	On deck or below deck	On deck only	On deck only	On deck or below deck
Passenger ships carrying more than 25 passengers	On deck or below deck	On deck only	On deck only	Prohibited	Prohibited

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

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

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

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

4.6 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:

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

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

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

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

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

1	Away from	3 meters
2	Separated from	6 meters
3	Separated by a complete compartment or hold from	12 meters
4	Separated longitudinally by an intervening complete compartment or hold from	24 meters
X	The segregation, if any, is shown in the Dangerous Goods List	-

In addition to the general separation chart, Table 7.4.3.2 for the separation of containers on container ships with closed holds, Table 7.4.3.3 for the separation of containers on containers without hatch covers and Table 7.5.3.2 for vehicles on Ro-Ro vessels. The parsing rules found in this section will apply.

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

1. Package / IBC / trailer / FR containers and platforms

- 0** = no segregation (unless otherwise specified in special provisions)
- A** = “away from” – minimum 3 m distance
- S** = “seperated from” – in open areas minimum 6 m. distance;
in closed areas and in closed depots minimum 12 m distance or
seperated by exproof walls

2. Closed containers / mobile tanks / closed vehicles

- 0** = no segregation (unless otherwise specified in special provisions)
- A** = “away from” - no segregation (unless otherwise specified in special provisions)
- S** = “seperated from” – in open areas longitudinal and transversely min 3 m distance,
in closed areas and in closed depots minimum 6 m distance or
seperated by exproof walls

3. Open vehicles / train vagoons / open top containers

- 0** = no segregation (unless otherwise specified in special provisions)
- A** = “away from” – minimum 3 m distance
- S** = “... dan ayrı” – in open areas longitudinal and transversely min 6 m distance,
in closed areas and in closed depots minimum 12 m distance or
seperated by exproof walls

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

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

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

4.7 Dangerous Goods Documentation

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

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

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

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

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

4.7.1 Documents required for dispatching Dangerous Goods

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

4.7.1.1 Dangerous Goods Transportation Document

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

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

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

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4.7.2 Dangerous Goods Declaration Ordinance

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

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

The following are examples of dangerous goods descriptions:

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

4.7.3 Container/Vehicle Packing Certificate

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

- The cargo transport unit was clean, dry and apparently fit to receive the goods
- Incompatible substances have not been placed into the cargo transport unit (unless this had been specifically authorized by the competent national authority)
- All packages have been externally inspected for damage, and only sound packages have been loaded
- All packages have been properly loaded and secured within the cargo transport unit
- The cargo transport unit and the packages are properly marked, labeled and placarded
- A dangerous goods transport document has been received for each dangerous goods consignment loaded in the container/vehicle

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

The most up-to-date version of this certificate is specified in the Directive on Authorization of Surveillance Companies to Perform Hazardous Cargo Surveillance Services ile which came into force with the approval of the Ministry, dated June 13, 2017 and numbered 57300.

4.7.4 Multimodal Model Transport Document

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

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

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MULTIMODAL DANGEROUS GOOD FORM					
1. Shipper/Consignor/ Sender Very Toxic Chemical Company 55 Prosperous Ave, Singapore 123456 Tel : 777-4444		2. Transport document number		3. Page 1 of 1 pages	
6. Consignee Safe Chemical Trading Co., Ltd 45th Street, Northumberland NE24 4RG United Kingdom Tel : 444-8446		7. Carrier (to be completed by the carrier)			
8. This shipment is within the limitations prescribed for: (delete non-applicable) PASSENGER-AND-CARGO AIRCRAFT CARGO-AIRCRAFT-ONLY		9. Additional handling information			
10. Vessel/flight No. and date M.V. Green Voy. 123N		11. Port/place or loading Singapore		12. Port/Place of discharge Liverpool/ United Kingdom	
		13. Destination Manchester/UK			
14. Shipping marks					
		*Number and kind of package; description of goods		Gross mass(kg)	Net mass(kg)
		UN 1170, ETHANOL SOLUTION, Class 3, PG III, (24°C c.c.) LTD QTY F-E, S-D. Total: 3 Ctns (24/Ctn) In plastic Bottles : QTY : 72		20.25	14.04
		UN 1170, ETHANOL SOLUTION, Class 3, PG II, (20°C c.c.) LTD QTY F-E, S-D. Total: 1 Ctn (14/Ctn) In plastic Bottles : QTY : 14		0.544	0.31
				0.057	0.001
15. Container identification No/ vehicle registration No. SPDU1234567		16. Seal number(s) 5445974	17. Container/ vehicle size & type 40' GP	18. Tare mass (kg) 19,678	19. Total gross mass (including tare) (kg) 25,000
20. CONTAINER/ VEHICLE PACKAGING CERTIFICATE I hereby declare that the goods described above have been packaged/ loaded into the container/ vehicle identified above in accordance with the applicable provisions MUST BE COMPLETED AND SIGNED FOR ALL CONTAINER/VEHICLE LOADS BY PERSON RESPONSIBLE FOR PACKING/LOADING Name of company Very Toxic Chemical Company, 55 Prosperous Ave, Singapore 123456 Tel : 777-4444 Name/status of declarant Mr. Pack Packman Place and date Singapore, 15 June 2011 Signature of declarant			21. RECEIVING ORGANIZATION RECEIPT Received the above number of packages/ container/ trailers in apparent good order and condition, unless stated hereon: RECEIVING ORGANIZATION REMARKS. Hauler's name Vehicle reg. No. Signature and date Driver's Signature		
			22. Name of company (of SHIPPER) PREPARING THIS NOTE Very Toxic Chemical Company Name/status of declarant Mr. Abod Elghi /Export Asst. Place and date Singapore, 15 June 2011 Signature of declarant		
DANGEROUS GOODS					
* You must specify: Proper Shipping Name, hazard class, UN No., packing group, (where assigned) name pollutant and observe the marking requirements under applicable national and international governmental regulation. For the purpose of the IMDG Code see, 5.4.1.4 For the purpose of the IMDG Code, See 5.4.2					

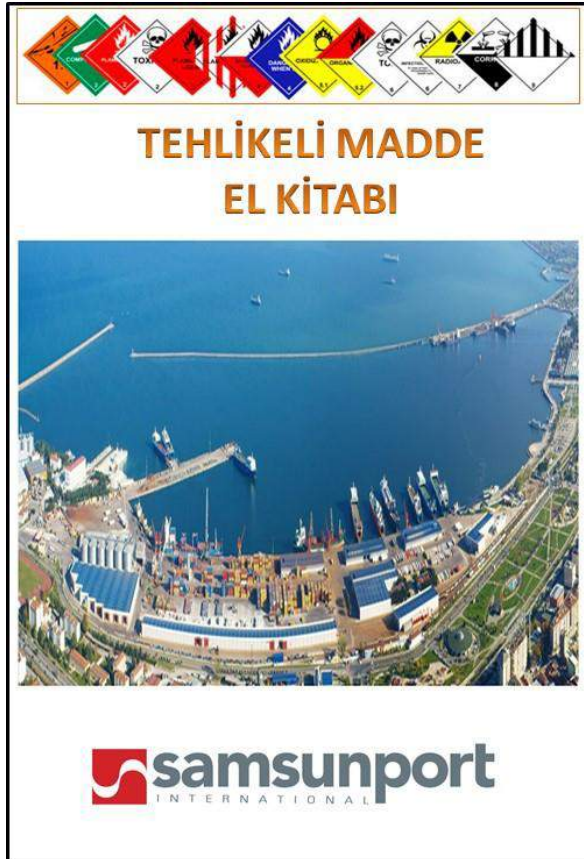
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5 HANDBOOK OF DANGEROUS GOODS

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

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

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



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6 PROCEDURES FOR THE OPERATION

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

6.1.1 Direct when and where a ship, having any dangerous cargoes on board, should anchor, moor, berth or remain within 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:

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

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

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

6.2.2 Solid bulk dangerous cargoes that, on contact with water, may evolve flammable or toxic 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.

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

6.3.3 These should include:

6.3.3.1 the examination, and frequency of re-examination of local areas and adjacent areas, including tests, carried out by accredited testing establishments, to ensure the areas are free, and continue to be free, of flammable and/or explosive atmospheres and, where appropriate, are not deficient in oxygen;

6.3.3.2 the removal of dangerous cargoes and other flammable substances and objects away from the working and adjacent areas. This includes scale, sludge, sediment and other possible flammable material;

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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.

6.4 Procedures on fumigation, gas measurement and degasification

6.4.1 The fumigation 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.

6.4.2 The fumigation area shall be surrounded by the use of proper materials 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.

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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 and for the bulk cargo by the agency as required pursuant to the applicable legislation.

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

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

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.

- Information on fumigation operations and fumigants,
- Knowledge about the general characteristics of fumigated containers, other cargo handling units or cargo warehouses,
- Practices for the unloading of fumigated containers and cargo handling units and the secure unloading of fumigated bulk cargo,
- 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,
- Information on the proper use of devices and equipment utilized for gas measurement and degasification,
- Use of personal protective equipment, clothing and devices,
- 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
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)
GRAIN Cod

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.

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

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

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

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. Information on hazardous substances is requested and filed with SDS.

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

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

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

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

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

7.3.4 Check that the dangerous goods arriving at the facility are properly identified, that the correct shipping names of dangerous cargoes are used, certified, packaged / packaged, labeled and declared, and that they are safely loaded into an approved and compliant packaging, container or freight unit.

7.3.5 Dangerous cargo operations are carried out according to IMDG Code rules.

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, Safety Data Sheet (SDS) with the following information must be present with the dangerous goods to be transported through all transport modes (by road, rail, air and marine).

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

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

7.5 Procedures for records and statistics of dangerous goods

As stated in Article 7.2, information on dangerous cargoes shall be kept regularly and statistical information shall be prepared and reported as required by the competent authorities.

Reports are stored in soft media so that they can be accessed at any time.

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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 Goods

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

8.1.2.2 The Population Threatened

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

8.1.2.3 Weather Conditions

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

8.1.3 Protective Actions

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

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

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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

- the vapors are flammable;
- if it will take a long time for the gas to clear the area; or
- if buildings cannot be closed tightly.
- Vehicles can offer some protection for a short period if the windows are closed and the ventilating systems are shut off. Vehicles are not as effective as buildings for in-place protection.

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

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

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

Emergency response plans will always be in place and in effect. The emergency response plan covers the following topics. In this context, intervention conditions were determined and opportunities and capacities were established.

- Scope and relationships with other plans
- Dangerous Goods available in the terminal area
- Rules and responsibilities

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- Types of Emergency
 - Fire in the facility, yard and cargo
 - Explosion
 - Incidents and injuries
 - Natural disasters such as earthquakes
 - Adverse weather conditions such as storms
 - Leakage or spillage of hazardous substances
 - Marine pollution (eg oil / fuel leakage)
 - Gas Leakage
 - Power failure
 - Ship fires
- Emergency Response Plans
- Post-emergency management methods
- Training and exercises
- Emergency response plan management
- Coordination with external parties and interested parties

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.

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

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

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

- Facility / Site
- Institutions
- County, EMC
- City EMC
- Possible to be managed by the central government.

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

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

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

Notifications about below mentioned titles are made using the “ FR.106 Hazardous Material Incidents Notification Form”.

- 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,
- d) 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),
- e) Meteorological conditions,

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- f) UN number of hazardous material and description of proper handling (the legislation provided in the description of hazardous materials shall apply) and quantity,
- g) Hazard class and sub-hazard class, if any, of hazardous materials,
- h) Packaging group of hazardous materials,
- i) ğ) Additional risks posed by hazardous materials, if any, such as marine pollutant,
- j) Marking and labelling details of hazardous materials,
- k) 1) Properties and number of packing, cargo handling unit and container by which hazardous materials are carried, if any,
- l) Manufacturer, shipper, transporter and recipient of hazardous materials,
- m) Extent of resulting damage/pollution,
- n) Number of casualties, injuries and loss, if any,
- o) Emergency response practices performed at the onshore facility regarding the accident.

8.5 The procedures for reporting accidents

8.5.1 Communication

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

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

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 FR.106 and include 8.4 details in full.

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.

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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.

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 Evacuation System

Notices and operational plans before, during and after the evacuation of the ship and sea vehicles from the coastal facility are as follows:

8.7.1.1 Fire on board or on-shore cranes under operation

The port worker (vessel operation personnel, crane operators, dock security personnel, CCTV personnel, technical personnel or any port employee on the dock due to his duty) who first saw or heard of the fire, called the HSS Department within the working hours and the Shift Supervisor outside the working hours.

If the ship is required to leave the port with the notification, the following processes shall be completed:

- If the operation continues, the operation is stopped and the employees involved are referred to a safe location.
- If the fire is on board, the shore cranes on or near the ship are transported away from the area of impact and the crane booms are heaved.
- If the fire is on the shore crane and if there is an operator in it, the operator is safely lowered to the pier and the cranes near the burning crane are transported to a remote location.
- Firefighters and fire fighting teams are informed about the fire extinguishing operations at the quay, door operation employees and customs officers are informed about the location of the fire and the entry of fire extinguishing vehicles into the port area.
- By informing the pilot captain, the tugboats are requested to arrive at the scene as soon as possible so that the ship can outrun.
- Tugboats with fire extinguishing equipment are also requested to come to the scene in order to intervene from the sea.
- The Port Authority is called and informed that the ship will leave the port due to an emergency.
- If the ship's machines are in working condition and able to outrigger from the quay by their own means, it is ensured that the quay ropes are left and leave the port as soon as possible.
- All operations are directed by the HSS officer during the working hours and by the Shift Supervisor outside the working hours.

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8.7.1.2 Rope cutting of a ship due to sudden strong wind or storm

As a port enterprise, meteorological conditions are continuously monitored. In case of severe storm warnings, information shall be provided to the operation personnel, operators and on-duty personnel of the berthed ships. The priority is to increase the ropes of the ship under all circumstances and to ensure that the ship's machines are always ready to move in the fastest way according to the intensity of the coming storm. When the wind reaches strong enough to prevent safe operation of the shore cranes, the wind alarm of the crane is activated and the operation is stopped and the cranes are secured. In case the vessel attached to the dock cuts the rope and starts to leave the dock while the operation is not in progress or is continuing, the following processes are followed:

- If the ship is loading or unloading and if there is a container attached to the spreader of the crane, the crane operator shall be informed as soon as possible that the crane is separated from the dock by intercom and / or radio.
- The operator moves the cabin of the crane in the direction of movement corresponding to the speed of movement of the ship, and at the same time begins to surrender the container in the hold in the fastest and safest manner.
- After the container is removed from the vessel, it is left on the dock at the nearest location and the safety of the crane is ensured.
- Although the pilot informs the pilot on the telephone and / or VHF call channel, the port operator is also required to make emergency calls via radio or telephone to reach the position on which the vessel is leaving the quay.
- According to the decision of the captain of the ship, new rope can be given to the berth and the ship can be reconnected or the existing ropes can be spread and separated from the berth.
- In the event that the vessel under operation leaves the dock for compulsory reasons before the operation is completed, both the Port Authority and the Customs Directorate are informed.

8.7.2 Post Emergency Evacuation

- Declaration of the decision on vessel towing and navigation route after the evacuation process of vessel.
- Transition / mooring of the vessel to designated area in company with towboats or its own machine
- Determining possible damages or deficiencies through examining the port facility
- Consideration of the time when the vessel and port facility become available for freight handling
- Sharing problems, if any, occurred during emergency evacuation

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.

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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 through filling up the National Waste Handling Form within the time specified in the laws and regulation. Relevant documents of National Waste Handling Form and other documents are stored in environment folder.

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

8.9 Emergency drills and their records

8.9.1 Implementation of Practices

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

8.9.2 Practice Scenarios

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

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8.9.3 Emergency Practices which will be performed within the port facility

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

8.10 Information on fire protection systems

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

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.

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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 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.

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 Fire Protection Hydrant Installation

8.11.3.1 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.

8.11.3.2 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.

8.11.3.3 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.

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

8.11.3.5 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.

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8.11.4 Portable Extinguishers

8.11.4.1 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.

8.11.4.2 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.

8.11.4.3 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.

8.11.5 Protection against freezing.

8.11.5.1 Protection of Generators

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

8.11.5.2 Protection fire-protection water pumps.

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

8.11.5.3 Protecting of fire-protection distribution pipes.

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

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

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

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

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

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

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

8.13 Other risk control equipment

Not available.

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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:

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

9.1.1.3 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.

- Risks in terms of employees health and safety when studying with dangerous chemical substances are disabled or minimized with following measures:
- Proper regulation and organization of work are done at Harbor Structure.
- Studies with dangerous chemical substances are made with minimum number of employees.
- Substance quantity and exposition period employees will be exposed is allowed to be at minimum level.
- Chemical substance quantity to be used at Harbor Structure is kept at minimum level.
- Work place building and extensions are always kept clean and neat.
- Proper and sufficient conditions are provided for employees' personnel cleaning.
- Necessary regulations are made to store, transport, use and process dangerous chemical substances, waste and residuals properly at Harbor Structure.
- Safe or less dangerous chemical substance is used instead of dangerous substance in terms of employees' health by using substitution method. If substitution method can't be used because of specification of the work, according to risk assessment result and with order of precedence, following measures are taken and risk is reduced:

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- Proper process and engineering control systems are chosen by also considering technological developments at studying with dangerous chemical substances involving maintenance and repair works those can be hazardous in terms of employees' health and safety.
- Block protection measures like installing sufficient ventilation system and proper work organization are taken to prevent risk at its source.
- In case of taken measures for protecting employees collectively against chemical substances' negative effects are not sufficient, personnel protection methods are adopted with these measures.

9.1.1.6 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,

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

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

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

9.1.1.11 Arrangements to reduce effect of explosion pressure are made.

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

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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,

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;

- Information gained as a result of the risk evaluation.
- Information about the dangerous substances that may occur or taking place at the Port Facility and about the recognition of these substances, health and security risks, occupational diseases, occupational exposure level values and other legal regulations.
- Necessary precautions and things to do so that the worker's do not danger themselves or the other workers.
- Information on the Turkish material safety data sheets supplied from the manufacturer for the dangerous chemical substances.
- Information on labelling/locking the parts, covers, pumping system and suchlike instalment where the dangerous chemical substances are according to the regulations

9.1.3.2 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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10 OTHER POINTS

10.1 Validity of the Hazardous Substances Compliance Certificate

10.1.1 Obligation to Obtain Documents and Permits (General)

In the port facilities which do not have the Dangerous Goods Compliance Certificate, the procedures regarding the dangerous cargoes to be transported by sea and to be transported by sea shall not be carried out.

If the provisions of the relevant directive cannot be adhered to temporarily, special permission must be obtained from the Administration.

Transport of dangerous goods of Class 1, Class 6.2 and Class 7 cannot be carried out without obtaining the opinion of conformity from the public institution concerned.

10.1.2 Obligation to have a Dangerous Goods Compliance Certificate

Samsunport will carry out transportation, storage, handling, loading, unloading, packaging, labeling, marking works and operations related to dangerous cargoes at the port facility. Dangerous Goods Compliance Certificate has been obtained since the workplaces where real and legal persons performing these duties are in compliance with the provisions of international conventions and standards specified in accordance with the relevant directive provisions and the conditions determined by the Administration.

Our port facility which handles dangerous goods has prepared a dangerous goods guide which contains the cargoes belonging to each hazard class that it handles commercially. This manual contains all the detailed information for the classes of hazardous materials handled, emergency action plans, response procedures, medical first aid requirements where necessary, and all port facility and subcontractor employees dealing with hazardous materials have been made aware of these plans.

In case of any change in the related conditions, the change shall be notified to the Contracting Entity in writing within 30 days at the latest and the necessary conditions shall be restored within 90 days.

Samsunport shall comply with the requirements of this Dangerous Goods Compliance Certificate during its activities. Port facility users and cargo operators will also be expected and requested to comply with the requirements.

10.2 Responsibilities of the Dangerous Goods Safety Consultant

As in section 2.4.

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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 The documents required to be issued by the relevant parties during the transportation of dangerous cargo are as follows:

1. Dangerous Goods Declaration
2. Dangerous Cargo Transport Waybill
3. Multi-Modal Dangerous Goods Form
4. Dangerous Goods Manifest
5. Container / Vehicle Packing Certificate
6. Safety Data Sheet
7. ADR / RID / IMDG Transport documents showing exemption for transports covered by Codes 3.4 and 3.5
8. Transport documents showing exemption for transports covered by ADR 1.1.3.6
9. For transports within the scope of ADR
 - a) Transportable and valid SRC 5 certification
 - b) ADR written instruction
 - c) Suitable for transport and valid Vehicle Certificate of Conformity
 - d) Transport documents
10. CSC Certificate for Safe Containers
11. Certificate of conformity of the tree in case of the use of heat-treated wood in the load-carrying unit and in loading safety or for transport
12. Certificate of loading safety showing that the cargoes in the container or vehicle are properly secured under the IMDG Code (with the exception of gaps, no moving parts and solid / liquid bulk cargoes)
13. As a result of the risk assessment of those containing harmful gas or fumigation application in the cargo transport units coming to the port facility and the cargo transport units leaving the port facility or if gas measurement was performed.

10.3.2 Dangerous goods coming to and leaving the port facilities cannot be transported without the necessary documents related to the transportation listed above. Cargos that are not properly secured under the IMDG Code are also treated as dangerous goods.

The speed limits in the port area are as specified in Article 1.2. However, vehicles carrying Dangerous Goods have the following speed limit under the Road Traffic Regulation:

In residentials	: 30 km/hour
Road with double lanes	: 50 km/hour
Highways	: 60 km/hour

What are the dangers, threats and attacks coming from land and sea and the precautions to be taken are included in the ISPS plans of the port.

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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:

- Name and IMO number of ship, agency and estimated time of arrival (ETA), 24 hours at the latest from arrival normally;
- 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;
- each cargo, dispatch or item in list should be numbered successively for easy reference.
- Stacking of hazardous cargo in a way to mark the ones to be unloaded and left in ship;
- The hazardous cargo to be left in ship should be indicated in a manner to refer the numbers in list (see above)
- Condition of hazardous cargos in case of possibility of occurrence an unappropriate hazard and
- Any known defect that will able to affect security of ship or port area.

10.4.1.2 Hazardous bulk cargo (liquid or solid);

- Name and IMO number of ship, agency and estimated time of arrival (ETA), 24 hours at the latest from arrival normally;
- A list showing product name of hazardous cargos and other information necessitated with related IMO Code;
- 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;
- Hazardous cargos to be left in ship should be indicated in a way to refer the numbers in list;
- 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
- Any known defect that may influence security of port area or ship
- 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. The samples of other information necessitated by regulatory voards concerning packaged hazardous cargos are:
 1. Container number
 2. Shipping license no or reference (if IMDG Code is class 1 or 7)
 3. Name and communication details of receiver or local carrier (if available)

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10.4.1.3 Day / night signs to be displayed at the port facility by ships and vessels carrying dangerous cargo

If a ship is to participate or participate in an operation related to the transport or handling of dangerous cargo at the port site, a special type of signal that may appear during the day and at night shall be used. Dangerous goods include the following cargos:

- Bulk liquid cargos in a closed container with a flash point below 60°C;
- Flammable and / or toxic bulk gases; and
- Explosives (out of scope of section 1.4S), liquid explosives that have been allocated to class 3 and solid explosives that have been assigned to class 4.1, in accordance with the rating specified by the regulatory authority

The reason for using the day or night signal is to inform the maritime traffic and personnel within the port area about the increased danger due to the presence and handling of dangerous cargoes in the environment. Signals and signals to be used are as follows:

- Day: “B” (picking up, unloading or carrying dangerous goods) and
- Red light at night, visible from 360°.

10.4.1.4 Cold and hot working on ships carrying dangerous cargo in the port

Ships and marine vehicles that will carry out degassing operations for hot and cold operation maintenance or repair shall comply with the provisions of the Regulation on Construction, Modification, Maintenance, Repair and Disassembly of Ship and Sea Vehicles published in the Official Gazette dated 21.12.2004 and numbered 25677.

10.4.1.4.1 Hot Work Procedure

Hot work on board is not allowed. However, in case of necessity, permissions shall be obtained by the shipping agency in accordance with the legal regulations and carried out under the control of the port facility.

Prior to the commencement of the hot works and operations at our port facility, written permission will be obtained from the port authority to ensure that such hot works can be performed. In the said permit, the hot work form shall specify the details of the hot work and the place where the operations will be carried out, as well as the safety measures to be applied.

10.4.1.4.2 The Hot Work Form includes:

- a) Frequent inspection of the work area and adjacent areas, including tests carried out by accredited test institutions, to ensure that the work sites are not flammable and / or explosive, and are insufficient for ventilation and oxygen;
- b) Removal of dangerous cargoes and other flammable substances from working areas and adjacent areas, (Lime, sludge, sediment and other possible flammable substances shall also be included).
- c) Effective protection of flammable building materials (eg beams, wooden partitions, floors, doors, wall and ceiling coverings) against accidental ignition,
- ç) In order to prevent the spread of flames, sparks and hot particles from working areas to adjacent areas or other areas; sealing and sealing open pipes, pipe passages, valves, joints, cavities and open parts.

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HOT WORK FORM

Risk Assessment										
Location of hot work:										
Area / Location:										
Special access restrictions (due to the task involving a specific welding type or the location being a hazardous area, confined space, etc):										
Reason for hot work:										
Work activity description:										
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:							
Hazard identification, risk analysis and control measure selection:					Add an additional page if the space below is insufficient.					
Specific Hot Work Issues: (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.					
Risk Assessment Guide										
Step 1 – Consider Consequences		Step 2 – Consider Likelihood		Step 3 – Calculate Risk						
What are the consequences of this hazard occurring? 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. 2. Take Step 2 rating and select the correct line. 3. Use the risk score where the two ratings cross on the matrix below. H = High, S = Serious, M = Medium, L = Low						
Extreme	Multiple fatalities or permanent injuries	Almost Certain	Is expected to occur in most circumstances	Likelihood	Almost Certain	Ins	Min	Maj	Crit	Ext
Critical	Single fatality or permanent injury	Likely	Will probably occur at least once		M	S	H	H	H	H
Major	Medical treatment or lost time injury	Possible	Event might occur at some time		L	M	S	H	H	H
Minor	First aid treatment	Unlikely / Rare	Event not expected to occur or only in exceptional circumstances		L	M	S	H	H	H
Insignificant	Incident or near miss – no treatment	Rare	only in exceptional circumstances		L	M	S	H	H	H
					Consequences					
					Ins	Min	Maj	Crit	Ext	
				Almost Certain						
				Likely						
				Possible						
				Unlikely / Rare						
Hazard	Controls	Personal Protective Wears	Responsible Party	Risk Assessment						
(List the hazards relating to the work)	(List the controls to manage each of the hazards)		(List the role, contractor, competency &/or prescribed occupation responsible for implementing the controls)	(With controls in place: High, Serious, Medium or Low)						
Risk Assessment Personnel:										
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.			
General Hot Work / Ignition Controls			
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"/>		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"/>		Catch mats or boards are to be positioned over grid-mesh, flooring, grates to catch sparks or slag
<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"/>		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"/>		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"/>		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
Specific Hot Work / Ignition Controls		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"/>
Additional Hot Work Controls within Confined Spaces			<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"/>
Completion Hot Work			<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"/>
Permit Request:			
Name: _____	Signature: _____	Date: _____	Time: _____
Approved			
Name: _____	Signature: _____	Date: _____	Time: _____

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A license plate of the hot work to be performed at the work area and all work area entrances and the safety precautions to be taken shall be hung. The permits and safety precautions shall be easily visible and clearly understood by all persons who shall carry out hot work.

The following points should be considered when performing hot works:

a) Checks shall be carried out to verify that the existing conditions in the working environment have not changed.

b) At the time of hot works, at least one fire extinguisher or other suitable fire extinguishing equipment, together with all apparatus, shall be readily available at an easily accessible location. During hot works and operations, the works in question are completed and for a sufficient time after completion; effective fire control shall be carried out in the area where the hot work is performed and in adjacent areas where the danger may arise due to heat transfer.

10.4.2 Departure by Sea

10.4.2.1 Packaged hazardous cargos:

- Name of ship and IMO number of ship, agency and estimated time of departure (ETD) as necessitated by regulatory boards;
- 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;
- Stacking place on board of hazardous cargos.

10.4.2.2 Hazardous bulk cargos (liquid or solid):

- Name of ship and IMO number of ship, agency and estimated time of departure (ETD) as necessitated by regulatory boards;
- A list showing product name of hazardous bulk cargos and other information necessitated by related IMO Code
- 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;
- Stacking on board or place of hazardous cargos.

10.5 Additional points will be added by the port facility

10.5.1 Training

10.5.1.1 Management

Management should ensure that all shipboard and shore personnel involved in the transport or handling of dangerous cargoes or in the supervision thereof are adequately trained, commensurate with their responsibilities within their organization.

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

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10.5.1.2 Personnel (cargo interests, port operators and ships)

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 Content of Training

10.5.2.1 General awareness/familiarization training

Every person should receive training on the safe transport and handling of dangerous cargoes, commensurate with his duties. The training should be designed to provide familiarity with the general hazards of relevant dangerous cargoes and the legal requirements. Such training should include a description of the types and classes of dangerous cargoes; marking, labelling and placarding, packing, segregation and compatibility requirements; a description of the purpose and content of the transport documents; and a description of available emergency response documents.

10.5.2.2 Function-specific training

Every person should receive detailed training concerning specific requirements for the transport and handling of dangerous cargoes which are applicable to the function that he performs.

10.5.2.3 Safety training

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

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.

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

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10.6 Accident Prevention Policy

As SAMSUNPORT INTERNATIONAL 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 SAMSUNPORT INTERNATIONAL PORT MANAGEMENT Quality Management Systems, as SAMSUNPORT, we will apply the POLICIES about

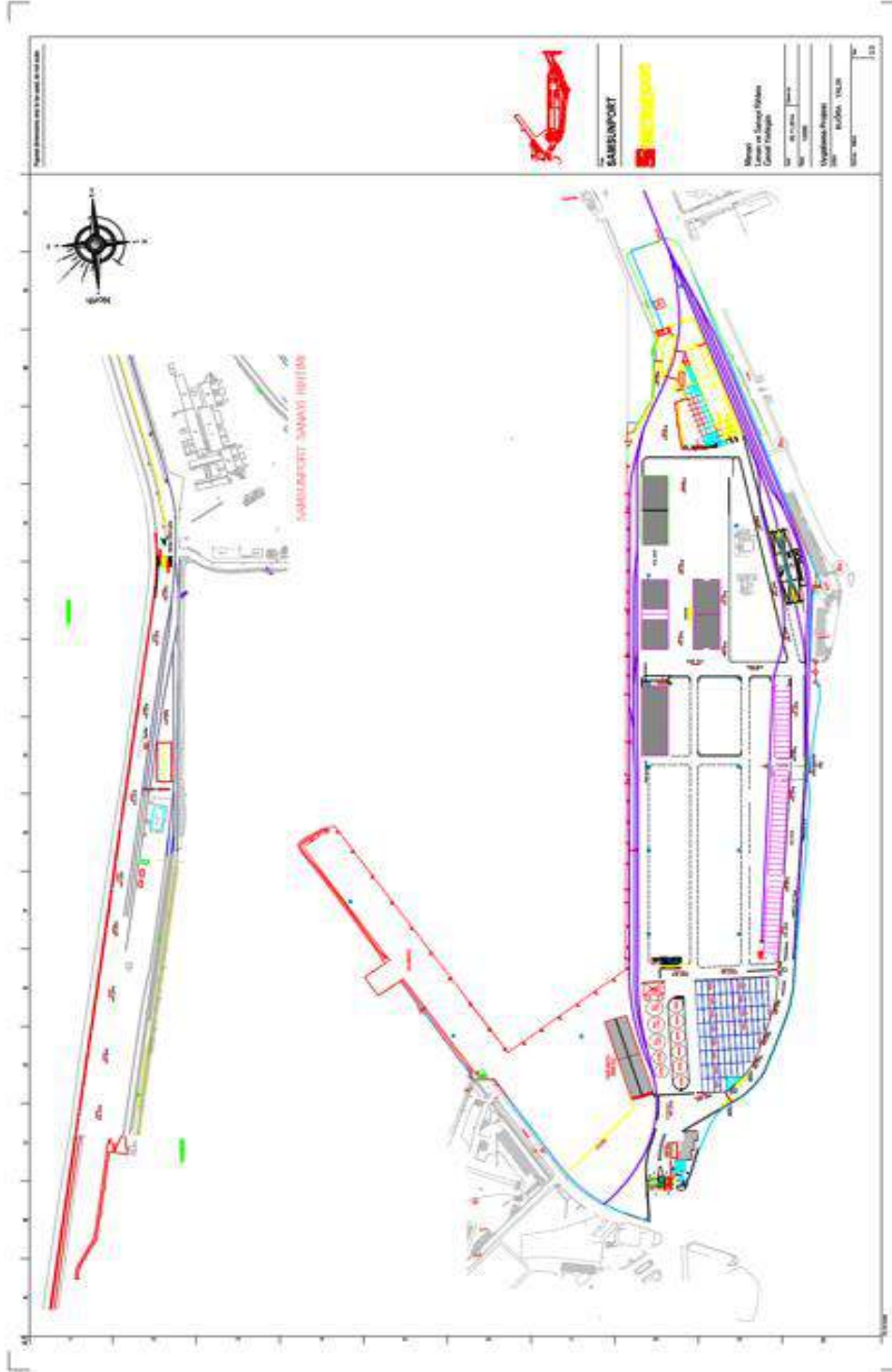
- taking high level security measures for human and environment around Port facility and procuring all resources for this purpose,
- making the risk evaluation based on quantitative analysis related to ordinary and extraordinary operation and keeping these evaluations updated continuously with the purpose 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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11 ANNEXES

11.1 General Site Plan of the Coastal Facility



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11.2 General View of the Coastal Facility



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11.3 Emergency Contact Points and Contact Information
SAMSUNPORT SWITCHBOARD TELEPHONE: 0362 445 14 00-01-02
FAKS: 0632 445 14 08

Internal Communication

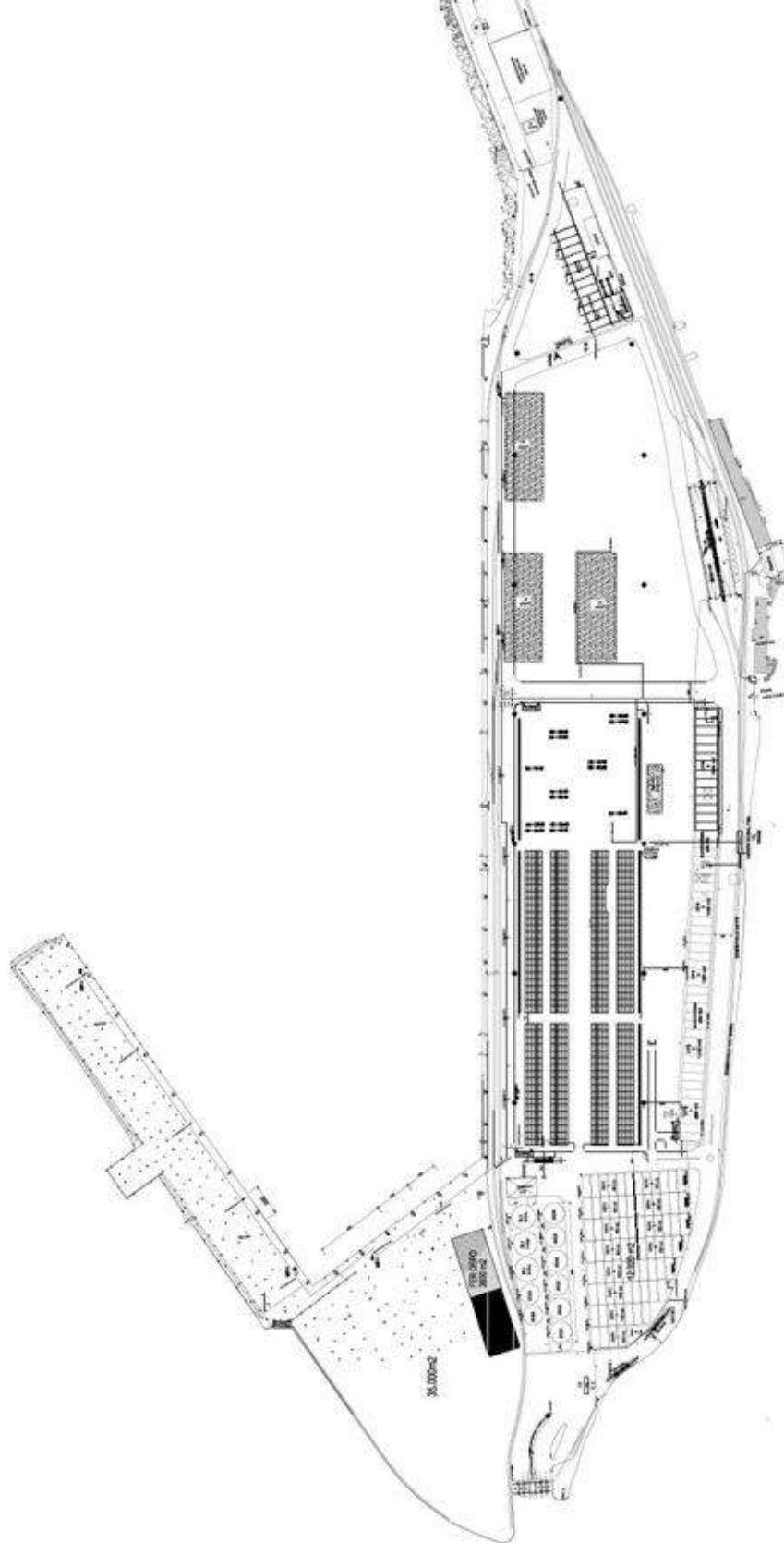
UNIT / DEPARTMENT	Extension
Management Asistant	500-524
Board Members	501
Port Director	505-506
Operations Manager	534
Formen & Chief Operator	553
Shift Supervisor on Duty	533
Gate-In for Vehichles	530
Gate-Out for Vehicles	531
Pilot	556
Supervisor of the Industrial Terminal	565
Gate of Industrial Terminal	566
Technical Manager	527
Electrical Engineer	514
Mechanical Engineer	511
Administrative Manager	508
HSS	507
Dangerous Goods and Environment	512
IT	515-520
Registry	510
Doctor	560
Security Manager	561
Security Supervisor– East Gate-In	572
Security – East Gate-In	571
Security – West Gate-In	563
West Gate – Customs Security Officer	576
Sea Police (Passanger Terminal)	573

External Communication

UNIT	TELEPHONE NUMBER
Customs – Middle Blacksea Region	0362 445 25 64
Samsun – Sea Police Manager	0362 445 25 70
Samsun – Port Authority	0362 435 90 13
Samsun – Environmental Affair Manager	0362 230 80 40
Samsun – Coast Guard	0362 445 03 33-34
Samsun – Fire Station	110

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11.4 General Site Plan where DG are handled.



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11.6 Emergency Plan

It is kept at the port facility as a separate document and renewed at least every 3 years. The Emergency Plan details are as follows.

Emergency procedures,

Emergency response organization chart

Name, title and contact details of the person / organization preparing emergency procedures,

Name, title and contact information, duties and responsibilities of the authorized person assigned to coordinate emergency response activities that may occur in the coastal facility,

Name, title and contact information, duties and responsibilities of the facility official to contact the relevant Port Authority and other relevant institutions and organizations in case of emergency,

Names and duties of the teams designated for response to emergencies and the names, duties and responsibilities of the personnel assigned in these teams,

The nature and capacities of the resources, equipment and equipment to be used by the coastal facility for emergency response,

Measures to be taken in order to control the serious conditions foreseeing the emergence of emergencies and to minimize the negative effects that these may cause, and the actions and actions to be taken and the facility's current capability, capability and capacity,

The nature of the measures 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 methods of announcement and the arrangements regarding the actions of persons in the face of a warning,

In case of emergency, the first notification procedures to be made to the Port Authority and the content of the information required to be notified to this port, and procedures for communicating this information to the Port Authority as new information is obtained,

Trainings to be taken by the personnel to be assigned in case of emergency,

Coordination methods to be provided with emergency teams outside the coastal facility in case of emergency,

The nature and period of training for emergency situations,

Arrangements to provide support for measures taken outside the coastal facility in emergencies.

Emergency plans must cover each of the following emergency situations:

a) Plant, equipment and field fires,

b) Cargo fires belonging to each hazard load class and sub-hazard classes allowed to be handled at the port,

c) Ship fires,

ç) Explosion,

d) Accidental death and serious injury,


e) Natural disasters such as earthquakes, floods, landslides, tsunami waves,

f) adverse weather conditions such as strong winds, storms, excessive snow or icing,

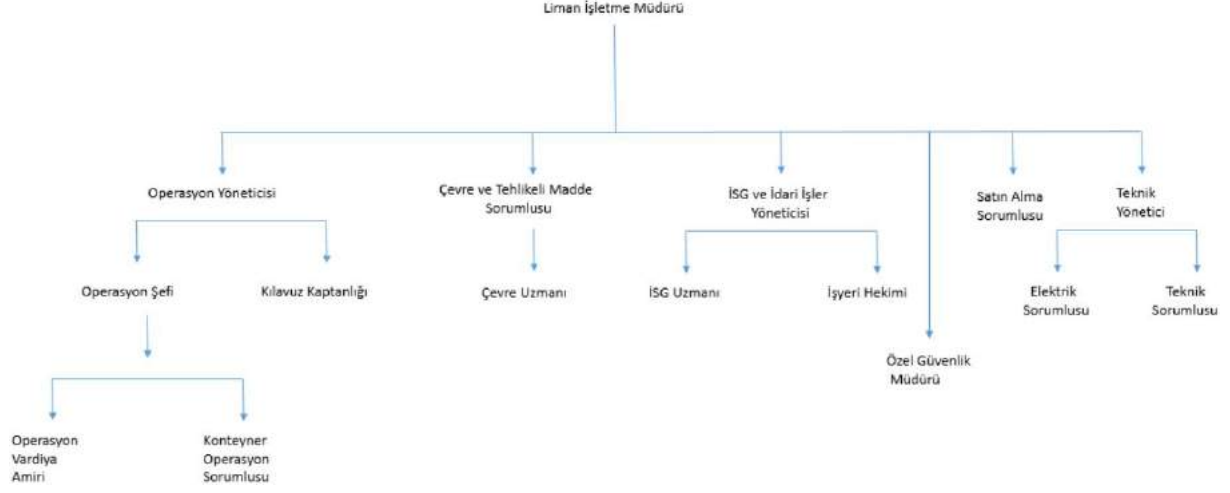
g) The leakage, flow or spillage of dangerous substances belonging to each hazard class or sub-hazard class that is allowed to be handled at the port,

ğ) Marine pollution (eg oil / fuel leakage or dangerous cargo or environmental spills / falls into the sea),

h) Gas leakage.

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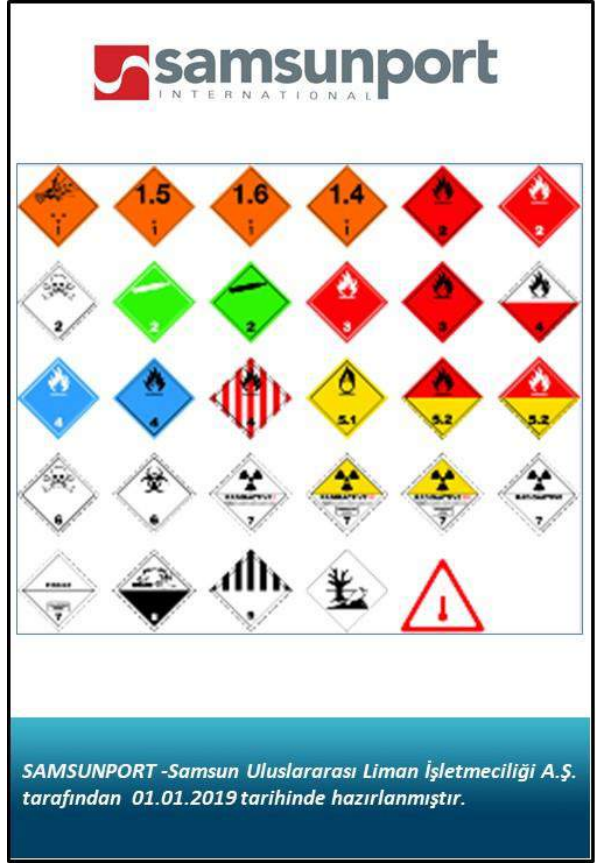
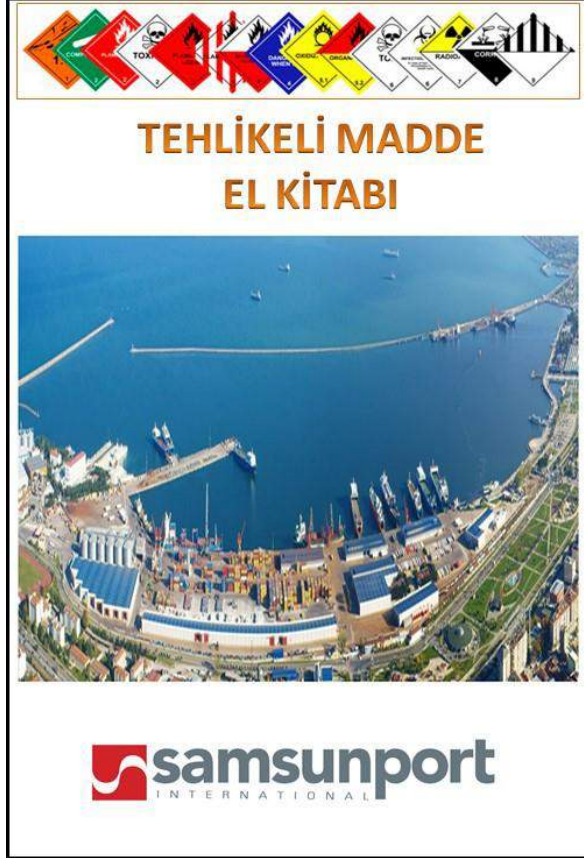
11.8 Emergency Management Organigram



(Persons and Contact information in this organization are currently updated.)

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11.9 Gangerous Goods Manuel



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11.10 Pools against the leakages in containers and/or packages.



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11.11 Inventory of Port Service Ships

Not related with foreign people.

11.12 Marine coordinates of the administrative limits of the Port Authority, mooring points and pilot captain landing / boarding points

A) Port administrative site limit

The port administrative area of Samsun Port Authority is the sea and coastal area between the lines drawn in the true north direction from the following coordinates and bounded by adjacent Turkish territorial waters.

- a) 41° 15' 45" N – 037° 01' 30" E (Cape Çaltı)
- b) 41° 44' 24" N – 035° 57' 36" E

B) Mooring ares

a) Mooring area 1: The mooring area for ships smaller than 1000 GT is the marine area of the following coordinates:

- 1) 41° 17' 54" N – 036° 20' 24" E
- 2) 41° 17' 54" N – 036° 20' 36" E
- 3) 41° 17' 36" N – 036° 20' 33" E
- 4) 41° 17' 36" N – 036° 20' 42" E

b) Mooring area 2: The mooring area of ships not carrying dangerous goods smaller than 5000 GT and military ships is the marine area formed by the following coordinates.

- 1) 41° 18' 09" N - 036° 21' 06" E
- 2) 41° 18' 09" N - 036° 21' 45" E
- 3) 41° 17' 00" N - 036° 21' 39" E
- 4) 41° 17' 00" N - 036° 23' 00" E

c) Mooring area 3: The mooring area of ships that do not carry dangerous goods of 5000 GT and above and military ships is the marine area formed by the following coordinates.

- 1) 41° 21' 00" N - 036° 21' 00" E
- 2) 41° 21' 00" N - 036° 22' 00" E
- 3) 41° 19' 36" N - 036° 21' 00" E
- 4) 41° 19' 18" N - 036° 22' 00" E

ç) Mooring area No. 4: The mooring area of ships carrying dangerous goods, military ships operating with nuclear power and ships to be quarantined and ships to be degassed shall be the marine area formed by the following coordinates.

- 1) 41° 17' 36" N - 036° 23' 48" E
- 2) 41° 17' 36" N - 036° 28' 00" E
- 3) 41° 19' 36" N - 036° 23' 48" E
- 4) 41° 19' 36" N - 036° 28' 00" E

C) Area to pick-up and release Pilot

- 1) 41° 18' 22" N – 036° 21' 42" E
- 2) 41° 16' 12" N – 036° 26' 30" E

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11.13 Emergency Response Equipment Against Marine Pollution in Port Facility

As in the approved Emergency Response Plan against Marine Pollution

11.14 Personal protective equipment (PPE) use map

It is obligatory to use helmets, reflective vests and safety shoes in all open areas except the offices in the harbor.

Dust goggles, dust mask and protective gloves shall be worn according to the type of cargo in ship operation.

Depending on the work done in the technical workshop, protective glasses, gloves and earphones can be worn.

In the event of direct contact with the substance in the areas where the hazardous material is handled, the protective equipment specified in the Safety Data Sheet of the substance shall be used.

11.15 Dangerous Goods Incidents Notification Form

FR.106 – Internal Notification used by Samsunport

11.16 Control Results Notification Form for Cargo Transport Units (CTUs)

Internal Notification used by Samsunport