Dublin Port Bye-Laws

Dangerous Goods (Cargoes)

2014

COMHLACHT CHALAFORT ÁTHA CLIATH
DUBLIN PORT COMPANY

Port Centre
Alexandra Road
Dublin 1
IRELAND

27 February 2014

Contents

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Revisions and amendments to these port Bye-Laws are the responsibility of the Harbour Master.

Part I – GENERAL PROVISIONS

1. Authorisation and commencement

Made by Company pursuant to the provisions of Section 42 (1) of the Harbours Act, 1996 (the "Act"), as amended by the "The Harbours (Amendment) Act 2009" relating to the regulation of the Harbour and property under the control of the Company.

These Bye-Laws have come into effect on the **xx day of xxxxx 2014** and have superseded and replaced the Dangerous Goods (Cargoes) Bye-Laws of the Port of Dublin 1986 which are hereby revoked. These bye-laws regulate dangerous Goods from Class 2 through to Class 9.

Whilst the control of Class 1 Dangerous Goods within Dublin Port is commented on in these bye-laws; Class 1 is regulated under a separate set of bye-laws, under the provisions of the Explosives Act 1875.

2. Definitions

ADR
Accord Européen Relatif au Transport International des Marchandises Dangereuses par Route. This is an international agreement which specifies requirements for the transport by road of dangerous or hazardous goods.

Authorised officers or representatives of the Company
All Company staff or nominated contracted personnel who are authorised by the Company to ensure compliance with these bye-laws.

Berth
Includes any dock, graving dock, pier, jetty, quay, mooring and other place at which a vessel might lie.

Cargo interests
Means a consignor (shipper), carrier, forwarder, consolidator, packing centre or any person, company or institution involved in any of the following activities: identification, containment, packaging, packing, securing, marking, labelling, placarding or documentation, as appropriate, of dangerous cargoes for receipt by a port and transport by sea and having control over the cargo at any time. In the case of the Company this means Port tenants operating a facility within the company estate.

Company
Dublin Port Company was established as a corporate entity in 1997, and is responsible for the management, control, operation and development of the port. The Company provides facilities, services, accommodation and lands in the harbour area for ships, goods and passengers. The Company is a limited liability company incorporated under the Companies Acts, 1963 to 1990 and registered in Ireland No. 262367.

Competent Authority
In Ireland the following are the competent authorities related to transport of dangerous goods:-

Main Competent Authority for land transport.
Health and Safety Authority
Dublin

Competent Authority for transport by Sea
Marine Survey Office (MSO) which is part of the Maritime Safety Directorate (MSD) of the Department of Transport, Tourism and Sport
Dublin

Competent Authority for ADR/IMDG Class 7:
Industrial Section
Regulatory Services Division
Radiological Protection Institute of Ireland
Dublin

Competent Authority for Vehicles carrying dangerous goods under ADR:
The Road Safety Authority
Ballina
Co. Mayo

Competent person
A competent person is defined in the Safety, Health and Welfare at Work (SHWW) Act, 2005 as "*Having regard to the task he or she is required to perform and taking account of the size or hazards of an undertaking or establishment in which he or she undertakes work; the person possesses sufficient training, experience and knowledge appropriate to the nature of the work to be undertaken*".

There is no one course available that ensures competency of an individual to be the competent person for an organisation. For a low risk environment an individual without any background in health and safety would require as absolute minimum a basic training course that includes common hazards, safety management, risk assessment and consultation to allow them (and the company) decide what additional training they may require. The employer, for the provision of protective and preventative services, must appoint a competent person. This person is, in the legislation, referred to as a competent person. This does not obviate the employer's general duty (Section 8. (l)) to obtain the services of a competent person, where necessary. It is up to the person with overall responsibility for health and safety (e.g. managing director) to arrange for the appointment of a person/s who shall act primarily as health and safety co-ordinator within the workplace (Section 18 (1)–(5)), for hazardous goods a competent person would have undertaken a training course in the ADR and IMDG codes, and have experience in dealing with dangerous goods.

Controlled Drug
Means a controlled drug as defined in section 2 of the Misuse of Drugs Act, 1977

Dangerous Goods
Means material that is likely to cause harm to people, equipment or the environment and for the purposes of these bye-laws dangerous goods are any material that is listed in tables of the United Nations Recommendations of Dangerous Goods Model Regulations or the International Maritime Dangerous Goods Code.

Driver Training Certificate
Section (41) (a) of the Carriage of Dangerous Goods by Road Regulations – SI 349 of 2011 has a legal requirement that all drivers of Dangerous Goods shall be trained and competent and this is demonstrated by having a Driver Training Certificate.

Fairway
Means a channel which is designated for shipping.

Goods
Means all articles and merchandise of any description and includes fish, livestock and animals.

Harbour
Means the Harbour as defined in Harbours Act, 1996 (Limits of Harbour of Company (Alteration) Order 1997) being the limits consisting of and including:-

(a) (i) The river Liffey and the quays and walls bounding the same;

(ii) The walls called the North Wall, the South Wall and the East Wall, respectively;

(iii) The piers, jetties, tidal basins and other works constructed by or belonging to the Company; and

(iv) The harbour of Dublin and the strands, bays, creeks and harbours thereof and all waters inside that area, commencing from and including the Rory O' Moore Bridge at Heuston Station in the City of Dublin, and extending to an imaginary straight line drawn from the Baily Lighthouse on the north in the County of Dublin and extending through the North Burford Bank Buoy and thence through the South Burford Bank Buoy and thence to Sorrento Point on the south including the harbours of Bullock and Sandycove, but excepting the limits of the harbour of Dun Laoghaire Harbour Company, and excepting also the Harbours of Coliemore and Sutton; and

(b) The Port of Dundalk

Harbour Craft
Means a Vessel which is used mainly within the Harbour and operated by the Company.

Harbour Master
The person appointed by the Company as Harbour Master from time to time and for the purposes of these Bye-laws means the Harbour Master for the time being of the port, and shall include the Harbour Master's nominees which are the Deputies and Assistants of the Harbour Master while acting within their authority as such Deputies and Assistants. The Harbour Master is a prescribed function in the Harbours Act 1996.

Harbour Master's Nominees
See Authorised officers and representatives of the Company. Refer to Sections (37) 1 (b) and (46) 1 of the Harbours Act 1996.

Harbour Police
Means a member or members of Dublin Harbour Police.

Harbour Premises
Means the Harbour and property including docks, quays, slipways, jetties, stages and all other harbours, works, land and buildings (whether owned, licensed or leased) for the time being vested in or occupied by or administered by the Company.

High consequence dangerous goods
Are those which have the potential for misuse in a terrorist incident and which may, as a result, produce serious consequences such as mass casualties or mass destruction. The list of high consequence dangerous goods is provided at Appendix 1.

IMDG Code
The International Maritime Dangerous Goods (IMDG) Code deals with various aspects of maritime safety and contains the mandatory provisions governing the carriage of dangerous goods in packaged form or in solid form in bulk. Although the information in the Code is directed primarily at the mariner, its provisions may affect a range of industries and services: manufacturers, packers, shippers, feeder services such as road and rail, and port authorities will find reliable advice on terminology, packing, labelling, classification, stowage, segregation, and emergency response action.

The International Convention for Safe Containers
The International Convention for Safe Containers (CSC) was finalised in 1972 in response to the rapid increase in the use of freight containers and the development of specialized container ships. It took effect in 1977 and applies to containers of a prescribed minimum size having corner fittings. The most recent update took place in July 2012.

Master
The word 'Master' when used in relation to any Vessel shall mean the person having command or charge of the Vessel for the time being, but shall not include Pilots.

Owner
When used in relation to Goods includes any consignor, consignee, shipper or agent for the sale, receipt, custody, loading or unloading and clearance of those Goods and includes any other person in charge of the Goods or his agent, in relation thereto; and when used in relation to a Vessel includes any part owner, broker, charterer, agent or mortgagee, in possession of the Vessel or other person or persons entitled for the time being in possession of the Vessel.

Port Security Staff
See Authorised Officer or Representative of the Company.

Quay
Means any quay, wharf, jetty, dolphin, landing stage or other structure used for berthing or mooring Vessels and includes any pier, bridge, roadway or footway immediately adjacent and affording access thereto.

Regulatory authority
Means the national, regional or local authority including the Company empowered to make legal requirements in respect of a port area and having powers to enforce the legal requirements. In Ireland, the Health and Safety Authority are the regulatory authority with respect to the transport of dangerous goods overland and the Marine Survey Office is the regulatory authority for shipping.

Responsible person
Means a person appointed by a shore side employer or by the master of a ship who is empowered to take all decisions relating to a specific task, having the necessary current knowledge and experience for that purpose and, where required, is suitably certificated or otherwise recognised by the regulatory authority.

Small Vessel
Means any vessel of less than 20 metres in length including a sailing vessel and for the purpose of this definition 'sailing vessel' means a vessel designed to carry sail, whether as a sole or as a primary or supplementary means of propulsion.

The Safety, Health and Welfare at Work Act, 2005
This Act sets out the main provisions for securing and improving the safety, health and welfare of people at work. Employer's duties include:

- Managing and conducting all work activities so as to ensure the safety, health and welfare of people at work (including the prevention of improper conduct or behaviour likely to put employees at risk).
- Designing, providing and maintaining a safe place of work that has safe access and egress, and uses plant and equipment that is safe and without risk to health.
- Prevention of risks from the use of any article or substance, or from exposure to physical agents, noise, vibration and ionising or other radiations.
- Planning, organising, performing, maintaining and, where appropriate, revising systems of work that are safe and without risk to health.
- Providing and maintaining welfare facilities for employees at the workplace.
- Providing information, instruction, training and supervision regarding safety and health to employees, which must be in a form, manner, and language that they are likely to understand?
- Cooperating with other employers who share the workplace so as to ensure that safety and health measures apply to all employees (including fixed-term and temporary workers) and providing employees with all relevant safety and health information.
- Providing appropriate protective equipment and clothing to the employees (and at no cost to the employees).
- Appointing one or more competent persons to specifically advise the employer on compliance with the safety and health laws.
- Preventing risks to other people at the place of work.
- Ensuring that reportable accidents and dangerous occurrences are reported to the Health and Safety Authority.

These responsibilities are those of all employers in the Port area, including all Cargo Interests tenants and the Company.

Vehicle
Includes any vehicle mechanically propelled or propelled on rails, any machinery on wheels or caterpillar tracks, trailers, caravans and mobile homes, and any amphibious vehicles while on land.

Vessel
Means a ship, boat, raft or water craft of any description and includes non-displacement craft, seaplanes and any other thing constructed or adapted for floating on, manoeuvring on or being submersed in water (whether permanently or temporarily) and a hovercraft or any other amphibious vehicle during such time as it is in or hovering over the water, other than a Small Vessel.

All terms used in these Bye-Laws shall have the same meaning as set out in the Act (The Harbours Act, 1996 as amended by the Harbours (Amendment) Act 2009. Where there is any conflict between these Bye-Laws and the Act, the provisions of these Bye-Laws shall prevail.

Any reference to a statute, Statutory Instrument, order, convention or regulation shall be deemed to refer to such statute, order, convention or regulation as amended, varied or replaced from time to time.

3. Penalties

Any person or entity who contravenes or otherwise fails to comply with any of these Bye-laws or any condition, requirement or prohibition imposed by the Harbour Master or Authorised Officer or Representative of the Company, in the exercise of the powers conferred upon him by these Bye-laws shall be guilty of an offence pursuant to Section 42(2) of the Harbours Act,1996 and shall be liable, *inter alia*, on summary conviction, to a fine not exceeding €1,905 or imprisonment for a term not exceeding 12 months or both, pursuant to Section 6(2) of the Harbours Act, 1996.

4. Application

These bye-laws apply throughout the Waterside and Shore side boundaries of the port area stipulated in the Harbours Act, 1996 (Limits of Harbour of Company) (as amended). These bye-laws apply to Class 2, Class 3, Class 4, Class 5, Class 6, Class 7, Class 8 and Class 9 dangerous goods within the Company Estate.

Class 1 dangerous goods are controlled under separate bye-laws.

5. Classes of Dangerous Goods

Dangerous Goods in these bye-laws are classified in accordance with the IMDG Code as follows:

Class 1	Explosives of Class 1 are not regulated under these bye-laws.
Class 2	Gases Division 2.1 Flammable Gases (e.g. LPG, acetylene, natural gas) Division 2.2 Compressed non-flammable gases (e.g. nitrogen, argon) Division 2.3 Toxic gases (e.g. chlorine, sulphur dioxide, ammonia)
Class 3	Flammable liquids (e.g. petrol, kerosene, solvents)
Class 4.1	Flammable solids, self-reactive substances and solid desensitized explosives
Class 4.2	Substances liable to spontaneous combustion
Class 4.3	Substances which on contact with water emit flammable gasses.
Class 5.1	Oxidising substances (e.g. ammonium nitrate, solid pool chlorine)
Class 5.2	Organic peroxides (e.g. methyl ethyl ketone peroxide – MEKP)
Class 6.1	Toxic Substances (e.g. sodium cyanide, pesticides)
Class 6.2	Infectious substances (e.g. medical waste)
Class 7	Radioactive material (e.g. monazite, uranium)
Class 8	Corrosive substances (e.g. sulphuric acid, caustic soda, hydrofluoric acid)
Class 9	Miscellaneous dangerous substances and articles

6. Injury or Damage

In the event of any loss or damage suffered by the Company, or in the event of any claim, demand, action or proceeding being made or taken against the Company, directly or indirectly arising from or connected with damage or injury caused to any person(s) or thing(s) where such damage has been caused directly or indirectly by dangerous goods:-

1) on board a vessel,
2) by dangerous goods being unloaded from a vessel.
3) by dangerous goods being loaded to a vessel.
4) Dangerous goods in transit or staged within the Port.

then in any such case the Company shall be indemnified to the full extent thereof by the owner of the vessel, goods and / or vehicle, as the case may be together with all costs, liabilities and expenses incurred by the Company in connection therewith.

The Company shall be entitled to enforce such indemnity in any court of competent jurisdiction.

7. Advance Notification Requirements

Advance or prior notification serves the purpose of allowing the port to check if the cargoes containing dangerous goods to be handled or in transit can be accommodated without jeopardising the port's safety at the intended date and time, taking into account the type and quantity of cargo involved and any quantity limitations in force.

Advance notifications shall be made via the Company-operated Management Information System (MIS) and this system shall generate a dangerous cargo permit and will include the appropriate day period allowed per shipment.

7.1 *Arrival by Sea*

7.1.1 Any vessel carrying a dangerous cargo in bulk shall not navigate within the port without the permission of the Harbour Master.

7.1.2 The Master of a Vessel having on board **Class 1 & 7 dangerous goods** shall notify the Harbour Master no later than **48 hours prior to arrival**.

7.1.3 The Master of a Vessel having on board **all other classes of dangerous goods (Class 2-6, 8-9)** shall notify the Harbour Master no later than **12 hours prior to arrival**.

7.1.4 The Master of a vessel having on board **all other classes of dangerous goods (Class 2-6, 8-9)** that have arrived by road or rail in port of origin and gone direct to ship, shall notify the Harbour Master **prior to the ships departure from port of origin if less than 12 hours**.

7.1.5 Where for technical reasons the notification period cannot be complied with, prior approval must be obtained from the Harbour Master.

7.1.6 Failure to notify and receive permission from the Harbour Master will result in the vessel being delayed or refused permission to enter the port.

7.1.7 Notification shall be effected by shipmaster, terminal-operator or agent and contain the following information:

Dangerous goods in packaged form:

I. Name of ship, for sea going ships in addition IMO number and call sign;
II. Number, type and gross mass of packages, UN number, proper shipping name, hazard class and, if applicable, its subdivision, packaging group if applicable, and flashpoint if 60°C or less;
III. For goods with subsidiary risks, the kind of subsidiary risk;
IV. For goods of class 7, in addition, the category, the transport index, the criticality safety index if applicable, the name of radio nuclide and the activity;
V. For consignments in containers, in addition the container identification number;
VI. For dangerous goods on-board ships, the stowage position together with notification of those dangerous goods to be unloaded and those to remain on board;
VII. A Dangerous Goods Note;
VIII. Any vessel defects.

Liquid bulk cargo (including liquefied gases)

i. Name of ship, for sea going ships in addition IMO number and call sign;
ii. Mass of consignments;
iii. Name of substance(s);
iv. Hazard class and UN number if assigned;
v. Flashpoint (deg C) – if applicable;
vi. Pollution category assigned by MARPOL Annex II when applicable;
vii. For dangerous goods on-board ships, the stowage position, together with notification of those dangerous goods to be unloaded and those to remain on board;
viii. Any vessel defects.

Dangerous goods in solid bulk

i. Name of ship, for sea going ships in addition IMO number and call sign;
ii. Mass of consignments;
iii. Name of substance(s);
iv. Hazard class and UN number if assigned;
v. For dangerous goods on-board ships, the stowage position, together with notification of those dangerous goods to be unloaded and those to remain on board;
vi. Any vessel defects.

7.2 Departure by Sea

7.2.1 Any vessel carrying a dangerous cargo in bulk shall not navigate within the port without the permission of the Harbour Master.

7.2.2 The Master of a Vessel departing the Port with **Class 1 & 7 dangerous goods** shall notify the Harbour Master no later than **48 hours prior to departure.**

7.2.3 The Master of a Vessel departing the Port with **all other classes of dangerous goods (Class 2-6, 8-9)** shall notify the Harbour Master no later than **12 hours prior to departure.**

7.2.4 The notification for vessels departing the Port with **all other classes of dangerous goods (Class 2-6, 8-9)** that have arrived by road or rail and gone direct to ship, shall notify the Harbour Master **prior to the ships departure if less than 12 hours**.

7.2.5 Where for technical reasons the notification period cannot be complied with, prior approval must be obtained from the Harbour Master.

7.2.6 Failure to notify and receive permission from the Harbour Master will result in the vessel being delayed or refused permission to sail.

7.2.7 Notification shall be effected by shipmaster, terminal-operator or agent and contain information shown at sections immediately below:

Dangerous goods in packaged form:

I. Name of ship, for sea going ships in addition IMO number and call sign;
II. Number, type and gross mass of packages, UN number, proper shipping name, hazard class and, if applicable, its subdivision, packaging group if applicable, and flashpoint if 60°C or less;
III. For goods with subsidiary risks, the kind of subsidiary risk;
IV. For goods of class 7, in addition, the category, the transport index, the criticality safety index if applicable, the name of radio nuclide and the activity; and in accordance with the relevant permit/licence from the RPII
V. For consignments in containers, in addition the container identification number;
VI. For dangerous goods on-board ships, the stowage position;
VII. A Dangerous Goods Note;
VIII. Any vessel defects.

Liquid bulk cargo (including liquefied gases)

i. Name of ship, for sea going ships in addition IMO number and call sign;
ii. Mass of consignments;
iii. Name of substance(s);
iv. Hazard class and UN number if assigned,
v. Flashpoint (deg C) – if applicable;
vi. Pollution category assigned by MARPOL Annex II when applicable;
vii. For dangerous goods on-board ships, the stowage position;
viii. Any vessel defects.

Dangerous goods in solid bulk

i. Name of ship, for sea going ships in addition IMO number and call sign;
ii. Mass of consignments;
iii. Name of substance(s);
iv. Hazard class and UN number if assigned;
v. For dangerous goods on-board ships, the stowage position, together with notification of those dangerous goods to be unloaded and those to remain on board;
vi. Any vessel defects.

- For goods of class 7, copies of all legally required documents shall be attached to the notification to the Company. For Class 7 dangerous goods being transported from within the European Union require the completion of the Standard shipping declaration document as specified in Council Regulation (EEC) No. 1493/93. This shipping document shall be completed by the consignee and approved by the Radiological Protection Institute of Ireland (RPII) in advance of the shipment(s).

- For waste Class 7 goods authorisation is required from the Radiological Protection Institute of Ireland (RPII) as required under the European Communities (Supervision and Control of Certain Shipments of Radioactive Waste) Regulations, 1994. These requirements are in addition to ADR and IMDG requirements.

7.3 Arrival by Road or Rail

7.3.1 Advance notification for arriving vehicles or rail with **Class 1 & 7 dangerous goods** shall be received by the Harbour Master no later than **48 hours prior to arrival.**

7.3.2 The notification for arriving vehicles or rail for **all other classes of dangerous goods (Class 2-6, 8-9)** going direct to ship shall be received by the Harbour Master **prior to ships departure if less than 12 hours**.

7.3.3 Where for technical reasons the notification period cannot be complied with, prior approval must be obtained from the Harbour Master.

7.3.4 Failure to comply with this bye-law will result in entry to the Port being delayed or refused.

7.3.5 Notification shall be effected by the terminal-operator and contain information shown at sections immediately below:

Vehicles arriving with dangerous goods

I. name of Consignor;
II. time of arrival at the Port;
III. number, type and gross mass of packages, UN number, proper shipping name, hazard class and, if applicable, its subdivision, packaging group if applicable, and flashpoint if 60°C or less;
IV. for goods with subsidiary risks, the kind of subsidiary risk;
V. for goods of class 7, in addition, the category, the transport index, the criticality safety index if applicable, the name of radio nuclide and the activity;
VI. for consignments in containers, in addition the container identification number;
VII. a copy of the Dangerous Goods Note containing the Packing Declaration and name/contact details of consignor and consignee;
VIII. each Transport Unit driver shall have a valid Driver Training Certificate attesting to his competency in transporting Dangerous Goods.

Vehicles departing the Port with dangerous goods

I. name of Consignor;
II. name of consignee;
III. time of arrival at the Port;
IV. number, type and gross mass of packages, UN number, proper shipping name, hazard class and, if applicable, its subdivision, packaging group if applicable, and flashpoint if 60°C or less;
V. for goods with subsidiary risks, the kind of subsidiary risk;
VI. for goods of class 7, in addition, the category, the transport index, the criticality safety index if applicable, the name of radio nuclide and the activity;
VII. for consignments in containers, in addition the container identification number;
VIII. a copy of the Dangerous Goods Note containing the Packing Declaration and name/contact details of consignor and consignee;
IX. each Transport Unit driver shall have a valid Driver Training Certificate attesting to his competency in transporting Dangerous Goods.

7.4 Storage /staging in the Port Estate

7.4.1 All Port Terminals and tenants must have a Company approved Dangerous Goods Storage and Emergency Response Plan. The Plans must be reviewed annually and are subject to inspection by the Company.

7.4.2 All Port Terminals and tenants must have in place a Dangerous Goods Inventory in an approved format on site and available for inspection by the Company at all times and inventories must be emailed to **dg@dublinport.ie** each day the terminal or tenant premises operate.

7.4.3 All Port Terminals and tenants must hold and have readily available Safety Data Sheets for all Dangerous Cargoes stored on their site.

7.4.4 All Port Terminals and tenants must carry out an annual exercise of their emergency response plan and document for audit purposes.

7.4.5 All Port Terminals storing, staging or loading/unloading Dangerous Goods must have a qualified Dangerous Goods Safety Advisor (DGSA) employee certified by a HSA approved training organisation.

7.4.6 The Company recommends all facilities storing or staging Dangerous Goods should have a Chemical Risk Assessment completed and staff involved complete a Dangerous Goods Awareness Course.

7.4.7 The Harbour Master, his nominee or authorised officer or representative of the Company may under exceptional circumstances allow by written authorisation that dangerous goods may be temporarily stored at the Port. Note exceptional circumstances exclude matters of commercial gain or expediency.

7.4.8 All Port Terminals and tenants requesting derogation of storage time and quantity must do so in writing to the Company stating Dangerous Goods class (UN specific) and must be accompanied by risk assessment and relevant Safety Data Sheet

8. Customs Facilities

Where dangerous goods are exported it shall be the responsibility of the consignor or carrier, and in the case of importation of dangerous goods, it shall be the responsibility of the consignee to make prior arrangements to ensure that Customs formalities shall not delay the departure of dangerous goods from the Port.

9. Prohibited Goods

A person shall not bring, deposit or organise the bringing into the Port prohibited goods.

10. Directions of the Harbour Master

A person shall not deposit or organise the bringing into the Port, dangerous goods for import or export by sea, except in accordance with the express prior approval of the Harbour Master, nominee or authorised Officer or Representative of the Company. Such persons shall comply fully with the instructions as to where and when such goods may be located, and the MIS system shall be used in generating such instructions.

11. Facilities to be given to Company Officers

A person shall afford every reasonable facility to any authorised Officer or Representative of Company to ascertain that these bye-laws are being complied with.

12. Smoking Prohibitions

Smoking in the work place is prohibited under Irish Law and the use of fire and open lights are prohibited in all areas with the exception of Company approved zones.

Note, in addition to the national regulations on smoking in the workplace, that smoking in the following areas involving dangerous goods may cause increased risks of fire/explosion:-

i. in cargo handling areas, in open storage areas, in sheds and warehouses (outside their offices, toilets/restrooms and living quarters);

ii. in cargo holds, ballast tanks and bunker tanks of ships and within a range of 30 metres from deck cargo and open hatches;

iii. on tankers and other ships carrying dangerous goods outside closed accommodation quarters;

iv. on deck of ships taking liquid fuel and lubricating material;

v. within a range of 30 metres of ships mentioned under subparagraph (iii) and (iv).

vi. or in other 'No Smoking' signposted areas.

Vessels carrying or handling dangerous goods must display, at their place(s) of access, a warning sign with the wording:-

"SMOKING PROHIBITED"

The use of matches and cigarette lighters outside the approved smoking huts and vessel accommodation is prohibited. Matches and cigarette lighters shall not be carried on the tank deck or in any other place where flammable goods may be present.

The use of all mechanical lighters and portable lighters with electrical ignition sources is prohibited on board tankers and co-joining shore facilities.

13. Supervision of Loading

Where dangerous goods are being loaded onto or unloaded from a vessel within the limits of the port, the Terminal Operator shall ensure that the competent person on shore and the master of the vessel or some competent officer on the vessel shall supervise the loading or unloading operations.

The Shore supervisor shall be aware of

i. Their responsibilities under The Safety, Health and Welfare at Work Act, 2005.

ii. The risks associated with the specific dangerous goods being loaded/unloaded.

iii. The facilities available to call on the emergency response services, including Fire Service, Garda Siochana, contracted chemical response team, and the Port Operations Centre.

iv. The need to respond appropriately on them becoming aware of any deficiency, flaw or dangerous goods non-compliance with legislation. The response if it affects safety of personnel shall include halting the operation until such time as adequate and appropriate safety measures have been put in place. Guidance on such actions is referenced at sections 27 and 28 of these bye-laws.

The responsibilities of the Shore Side supervisor in no way negates the responsibility of the vessel's master as specified in the IMDG code.

Loading and unloading of goods

v. Any person in charge of any plant, machinery, equipment or appliance situated on Company property and used for the purpose of loading, unloading or handling goods or for any other purpose connected with Port operations shall remove that plant, machinery, equipment or appliance from that property upon order of the Company.

vi. No person shall operate any plant, machinery, equipment or appliance referred to in subsection (v) without such safety devices as may be required by law or by the Company.

vii. Except with written permission of the Company, no person shall locate in or about any building on Company property any plant, machinery, equipment or appliance used for the purpose of loading, unloading or handling goods unless that plant, machinery, equipment or appliance is in actual operation for that purpose.

viii. Prior to commencement of cargo handling operations involving dangerous goods, the responsible person supervising these activities must ensure that all staff engaged in the handling of dangerous goods receive information about the presence of dangerous goods, hazards inherent in the goods and applicable safety precautions to be taken. This applies also to the handling of other cargoes which may get into contact with dangerous goods remaining on board (i.e., in transit).

ix. The responsible person must ensure that personnel will be provided with appropriate and suitable protective clothing and equipment and that these are properly used.

x. All Port Terminal storing, staging or loading/unloading Dangerous Goods must have a qualified Dangerous Goods Safety Advisor (DGSA) employee certified by a HSA approved training organisation.

14. Fire Precautions

In accordance with Section 19 of the Safety, Health and Welfare at Work Act 2005, Terminal Operators shall carry out risk assessments and record these in their Company Safety Statements. A fire safety risk assessment should be conducted and should include:

- Fire Prevention Systems.
- Fire Detection and Warning Systems.
- Emergency Escape and Fire Fighting Provisions.

All persons in Dublin Port shall comply with such standards of fire prevention and protection against fire as are necessary or advisable for the protection of persons and property. The legislation related to fire precautions includes;

- The Safety, Health and Welfare at Work (General Application) Regulations 2007 (S.I. No. 299 of 2007) relating to the workplace.
- The Fire Services Acts 1981 and 2003 (No. 30 of 1981 and No.15 of 2003).

The Fire Services Acts specify for emergency exits, that an employer shall ensure that—

(a) emergency routes to emergency exits and the exits themselves are kept clear at all times and lead as directly as possible to the open air or to a safe area,

(b) in the event of danger, it is possible for employees to evacuate all workstations quickly and as safely as possible,

(c) the number, distribution and dimensions of the emergency routes and exits are adequate for the use, equipment and dimensions of the place of work and the maximum number of persons that may be present,

(d) emergency exit doors open outwards,

(e) any sliding or revolving doors that are fitted are not used, or intended to be used, as emergency exits,

(f) emergency doors and gates are not so locked or fastened that they cannot be easily and immediately opened by any person who may need to use them in an emergency,

(g) specific emergency routes and exits are indicated by signs,

(h) emergency routes and exits, and the traffic routes and doors giving access to them, are free from obstruction so that they can be used at any time without hindrance, and

(i) emergency routes and exits requiring illumination are provided with emergency lighting of adequate intensity in case the lighting fails.

The Fire Services Acts further specify that an employer shall ensure that:-

(a) a place of work is equipped with appropriate fire-fighting equipment and, as necessary, fire detectors and an alarm system, taking account of—

(i) the dimensions and use of the buildings,

(ii) the equipment they contain,
(iii) the physical and chemical characteristics of the substances present, and
(iv) the maximum potential number of people present,

(b) non-automatic fire-fighting equipment is—
(i) easily accessible and simple to use, and
(ii) indicated by signs in accordance with Part 7, Chapter 1 and the signs are placed at appropriate points and are adequately durable, and

(c) fire detection equipment and fire-fighting equipment is—
(i) inspected and maintained as frequently as necessary to ensure that it is in good working order, and
(ii) serviced by a competent person as frequently as necessary.

Use of welding and burning equipment in the Port – on board vessels or on shore

i. No person may use any drilling, grinding, welding or burning equipment in the Port, nor in any vessel berthed at the Port, except with written permission of the Company. All hot work shall be pre-notified to the Harbour Master, or authorised Officers or Representatives of the Company. The Company controls such hot-works under a Standard Operating Procedure (SOP). This procedure requires that the Vessel Master and Chief Engineer must review and sign the Hot Work Permit, which is then examined by an authorised Officer or Representative of the Company; to ensure it meets the conditions on the Company's Hot Work Check List.

ii. Before drilling, grinding, welding or burning equipment is used in the Port (on board vessels or on the land-side of the Port), the operators there shall ensure that all flammable material shall be moved to such a distance from the equipment as will render them safe from fire and, where such movement is impossible, they shall adequately shield such materials from heat and sparks.

iii. No tanks, containers or other facilities used for storage or transportation of inflammable materials shall be repaired in the Port with using grinding, drilling, welding or burning equipment until the operators of such equipment have ensured that such facilities have been rendered safe for making the repairs, and that a Hot Work Permit and Gas Free Certificate has been issued by a competent person and that these permits have been checked against the Company's Hot Work Check List prior to the work commencing.

iv. The operators of drilling, grinding, welding or burning equipment in use in the Port shall ensure that suitable fire extinguishing equipment, ready for instant use and shall be placed near each such unit. Advice on the appropriate equipment shall be provided by the Permit Issuer.

v. The operators of drilling, grinding, welding or burning equipment in the Port shall ensure that every compressor or generator used in connection with these shall be placed securely and in such manner as not to interfere with any other operations carried on in the Port or on Company property.

vi. Operators of drilling, grinding, welding or burning equipment shall at all times take all necessary precautions to prevent fire or explosion from the use of such equipment by ensuring they comply fully with the requirements of the Hot Work Permit.

vii. The use of welding or burning equipment at designated workshop or compound areas is excluded from this Bye-law.

No artificial lights to be used without permission

viii. No person shall use any artificial light which may impair navigation on Company property without permission of the Company.

No article or substance to be burned, boiled etc. without permission

ix. No person shall burn, boil or heat by fire any article or substance on Company property except with permission of the Company and in such place and in such manner as the Company directs.

Fire extinguishing equipment to be available for use at all times

x. The Master of every vessel in the Port (small non-powered vessels excepted) shall have adequate fire extinguishing equipment available for immediate use in any part of the vessel at all times, and the nature and amount of such equipment shall take into account any abnormal fire risk associated with any such vessel such as the type and quantities of dangerous goods carried.

xi. The responsible and competent person for each Port tenant shall have adequate fire extinguishing equipment available for immediate use in any part of the tenant's premises at all times, and the nature and amount of such equipment shall take into account any abnormal fire risk associated with the tenant site and the type and quantities of dangerous goods handled. The fire protection equipment and procedures shall be identified by risk assessment as required of all employers under the Safety, Health and Welfare at Work (General Application) Regulations 2007, or The Fire Services Acts 1981 and 2003.

Fires on vessels to be in suitable containers and under watch

xii. The Master of every vessel in the Port shall ensure that no fire shall be allowed thereon, without prior permission from the Harbour Master.

Signalling and reporting of fires.

In the event of a fire occurring at a quay at which a vessel is berthed, or on board any vessel in the Port the Master of such vessel shall contact VTS Dublin on VHF Channel 12.

Fire extinguishing equipment for incipient fires to be available when/where dangerous goods are being loaded/ unloaded.

xiii. Sufficient fire extinguishing equipment which are suitable for coping with specific fire types while dangerous goods are on Company property or are being loaded, unloaded or handled in the Port. These shall be provided by the person or persons in charge of loading unloading or handling such dangerous goods and shall be maintained ready by such person or persons for immediate use.

Fire hydrants to be used for fires only

xiv. No person shall use a fire hydrant located on Company property for any purpose other than fire or fire drill without permission of the Company and then only in accordance with the terms of such permission. This is to ensure that Hydrants are kept available for emergency use.

Vessels containing or handling dangerous goods to display notices

xv. The Master of every vessel loading, unloading or having on board dangerous goods (including highly flammable goods) in the Port shall display "No Smoking" signs in prominent positions on the vessel. The vessel shall also display Flag B or show an all-round red light at night.

Dangerous goods for which water is not a suitable extinguishing agent

xvi. Dangerous goods of this type shall not be extinguished with water. The person in charge of loading/unloading shall have a copy of the specific Safety Data Sheet (SDS) at hand – this SDS will provide detailed fire-fighting and spill containment and clean-up procedures. The competent person in charge shall ensure that the Master of the vessel and the Harbour Master or nominee or authorised Officers and Representatives of the Company are fully notified of the risks and precautions, including notification to the Fire Brigade to be on stand-by during such operations.

15. Safety Precautions

i. The Master of a vessel carrying packaged dangerous goods must keep a manifest or a special list stipulating all dangerous goods on board and their stowage position on board in accordance with IMDG Code requirements. This list or manifest may be substituted by a detailed stowage plan identifying the location of the dangerous goods. A copy of these documents must be kept in the dedicated, marked, water-tight fire control plan enclosure required by Chapter II-2, regulation 20.2. of the International Convention for the Safety of Life at Sea (SOLAS).

ii. The Master of vessels loading/unloading dangerous goods shall provide the required transport documents and all appropriate SDS to the responsible Duty Officer of the vessel.

iii. The Master of a ship should ensure that a safe deck and engine watch are maintained at all times. The Master should ensure that at all times there are sufficient crew available to operate the appropriate shipboard appliances in the case of an emergency. The Master should, in organising safe watch keeping arrangements, take full account of the nature, quantity, packing and stowage of dangerous cargoes and of any special conditions required.

iv. The Master of a vessel containing dangerous goods which are berthed overnight at the Port shall take all precautions to ensure safety to persons and property and shall ensure that a watchman is on duty.

v. Unless exempted in writing by the Company, the Master of every vessel shall ensure that such vessel when in the Port, shall maintain an adequate watch as required under Section 15 (iii) above and, in the event of any danger, accident, disturbance or fire, that such watch shall immediately give an alarm and notify VTS Dublin VHF Channel. 12.

vi. Notwithstanding the immediate emergency response action to be taken, every incident involving dangerous goods, damage to packages and actual or threatened release of dangerous goods from packages, road vehicles, freight containers or portable tanks the condition of which cannot be fully assessed, and, in addition, the establishment of an extraordinary working conditions implemented by the responsible person in charge must be reported immediately to VTS Dublin VHF Ch. 12 or telephone Port Operations on +353 1 8876858/+353 1 8876859.

vii. Any loss/ escape/leakage/venting of dangerous goods must be reported immediately to VTS Dublin VHF Ch. 12 or telephone Port Operations on +353 1 8876858/+353 1 8876859.

viii. Consignments of damaged or improper packages must not be moved until examined by an authorised Officer or Representative of the Company has assessed the further transportability of such goods. If necessary, such consignments must be transported to a special area. All expenses for examination and transport to be borne by Cargo Interest having control over consignment (i.e. owner, shipping line, freight forwarder, consignor or consignee, as applicable).

ix. In addition to the IMDG requirements as they apply to vessels above, every port operator or employer shall identify the hazards in the place of work under his or her control, assess the risks presented by those hazards and be in possession of a written assessment (referred to in the SHWW 2005 Act as a "risk assessment") of the risks to the safety, health and welfare at work of his or her employees, including the safety, health and welfare of any single employee or group or groups of employees who may be exposed to any risks as a consequence of handling dangerous goods or cargoes.

16. General Handling Precautions

Terminal Operators/Port tenants must provide all employees involved in the storage and handling of dangerous goods with suitable induction, information, training and supervision, in accordance with The Safety, Health and Welfare at Work Act 2005 (No. 10 of 2005), referred to here as the "2005 Act".

Information and training must be appropriate with the risks posed by dangerous goods, and the needs of each worker should be determined in the risk assessment process and through consultation with workers. Every person should be trained to follow systems of work and work practices that enable them to perform their work safely. Section 8 of the 2005 Act, requires every employer to ensure, so far as is reasonably practicable, the safety, health and welfare at work of all of his or her employees. Employer duties include (amongst other things):-

- the design, provision and maintenance of (i) safe workplaces (ii) safe means of access to and egress from the workplace and (iii) safe plant and machinery,
- providing safe systems of work,
- provision of adequate instruction, training and supervision and any necessary information,
- preparing risk assessments and safety statements which take account of the general principles of prevention when implementing necessary safety, health and welfare measures,
- to obtain, where necessary, the services of a competent person to assist in ensuring the safety, health and welfare of his or her employees,
- provision and maintenance of suitable personal protective equipment where risks cannot be eliminated, or where such equipment is prescribed.

All persons working with dangerous goods in the Port shall take all due precautions to prevent accidents such as fire, spillage or leakage of dangerous goods whilst loading, unloading or moving such goods.

All persons working with dangerous goods in the Port shall take all due precautions to prevent damage to tanks, packages or other units carrying dangerous goods. This includes damage which does not impair the integrity of the package containment but which may present other hazards such as trips, falls, and impact of protruding sections of such packaging.

No person shall deface, obliterate, over-label or otherwise make illegible any placards, labels, signs or other visual indicators of package or tank contents.

All such dangerous goods shall be segregated in accordance with the segregation table shown at Appendix III. In addition such interim storage shall be carried out taking into consideration all recommendations as to shading, protection from sunlight or other conditions as specified by the Harbour Master nominee or authorised Officer or Representative of the Company.

17. Loading and Unloading of Dangerous Goods

The responsible person supervising such loading and unloading shall be familiar with the IMDG/ADR code requirements for dangerous goods.

i. Transit, handling and intermediate keeping of dangerous goods are permitted only in accordance with the quantity restrictions and safety requirements stipulated in Appendix II.

ii. All packagings, road and railway vehicles, freight containers, portable tanks, unit loads, large packagings containing dangerous goods to be brought into the area covered by these Port Bye-Laws must be marked, labeled and placarded in accordance with the requirements of the IMDG-Code. For dangerous goods not destined for sea transport, the regulations applicable to the particular transport mode may be used, for road transport this is the ADR and Irish regulations on the transport of Dangerous Goods by Road. Marks, labels and placards must correspond to the respective contents. Those marks, labels and placards not applicable must be removed. Packagings, large packagings and portable tanks may be used only if they bear the respective approval markings. Containers are to comply with the International Convention of Safe Containers (CSC).

iii. The Company may refuse acceptance of consignments of dangerous goods which do not comply with the applicable transport regulations or with the requirements of these Bye-Laws or which do not have correct transport documents available, or may prohibit onward transport or place consignment under safe-keeping until these deficiencies are remedied.

iv. Intermediate keeping of dangerous goods is permitted only in designated storage facilities approved by the Company. Container doors and tank valves must be accessible at all times, and containers with different classes of dangerous goods must not be over-stowed.

v. In case of emergency, the cargo handling facility (tenant of the Company) shall hand over to Dublin City Fire brigade a print out of all stored consignments of dangerous goods on the tenant's facility.

vi. Transit, handling and intermediate keeping of dangerous goods are permitted only in accordance with the quantity restrictions and duration requirements stipulated in Appendix II.

vii. All packagings, road and railway vehicles, freight containers, portable tanks, unit loads containing dangerous goods to be brought into the area covered by these Bye-Laws must be marked, labeled and placarded in accordance with the requirements of the IMDG/ADR Code.

viii. The Company may refuse acceptance of consignments of dangerous goods which do not comply with the applicable transport regulations or with the requirements of these Bye-Laws or which do not have correct transport documents available, or may prohibit onward transport or place such consignments under safe-keeping until these deficiencies are remedied.

ix. All Port Terminal storing, staging or loading/unloading Dangerous Goods must have a qualified Dangerous Goods Safety Advisor (DGSA) employee certified by a HSA approved training organisation.

18. Requirements for Cargo / Package-handling Gear.

i. Any person handling dangerous goods in the Port shall ensure that the cargo handling and lifting appliances and lifting gear used are of good mechanical construction and design, made of strong and sound materials, and free from patent defect and are operated only if there is a valid insurance certificate in place for such equipment.

ii. Cargo handling gear and machinery should not be subjected to loads beyond the certified safe working load. In deciding whether a lifting appliance is of adequate strength for the purposes for which it is to be used, account should be taken of the weight of the associated lifting gear, and whether the gear is likely to impose additional stresses by virtue of the nature of the operation.

iii. The weight of a heavy package or article of cargo shall, if any doubt exists, be checked before being lifted.

iv. Cargo handling gear should only be used for the purpose for which it is intended.

19. Personal Protective Equipment (PPE) and Welfare Facilities

i. Port operators and tenants of the Company shall provide adequate protective clothing and personal protective equipment (PPE) to shield employees from the effects of any leakage or spillage of dangerous goods.

ii. Port operators and tenants of the Company should be instructed in the correct use and care of personal protective equipment and clothing.

iii. Protective clothing and equipment should be kept clean and properly maintained and should be washed and disinfected when necessary.

iv. Employees shall not misuse or interfere with the safety equipment provided by the employer.

v. All PPE must be CE marked and be assessed for suitability for use in the particular workplace.

vi. Typical PPE used in Port work includes:
Safety helmets, boots and gloves
Eye or face protection, respiratory protection and hearing protection
Weatherproof and/or high visibility clothing
Safety harness
Personal flotation devices for persons working within 1.5 meters of the water's edge.

vii. Port workers operating heavy plant e.g. cranes, forklifts, loaders and stackers may be exposed to whole body vibration (WBV). Employers must ensure that vibration assessments are carried out where there is any risk of WBV occurring, and the appropriate actions taken as required. Risk assessments shall be carried out by the Port/Berth operators.

viii. Health and safety and other relevant information must also be provided by a port employer to any contractors or other companies involved in the operations and this information must be passed on to all employees concerned, as required under Section 10 of the 2005 Act.

ix. The port operator or labour supplier providing cargo handling services to a ship has a duty to ensure that all employees concerned are:

- Physically / medically fit for the work.
- Appropriately trained.
- Provided with relevant information regarding any hazards or risks to their safety and health, and the control measures in place in relation to:-
    - The cargo they will be handling.
    - The port facility, the berth or the ship and they will be working on.
    - Working in accordance with a safe system of work.
    - Properly supervised.
    - Provided with a means of reporting any hazards or defective equipment.
- Provided with appropriate welfare facilities.
- Provided with the appropriate PPE.

These requirements are specified in the 2005 SHWW Act.

20. Intoxicated Persons

No person under the influence of alcohol or drugs shall be allowed engage in any activities within the Port area as specified at Section 13 (1) (b) of the 2005 SHWW Act. All employees, if reasonably required by his or her employer, shall submit to any appropriate, reasonable and proportionate tests for intoxicants by, or under the supervision of, a registered medical practitioner who is a competent person, as may be prescribed, under Section 13 (1) (c) of this Act.

21. Mass and Volume.

i. The Master of any vessel shall ensure that the quantity of dangerous goods carried, or to be carried in the vessel shall not exceed any weight limits set out in the IMDG Code.

ii. No shipper of dangerous goods shall allow any dangerous goods to exceed the weight and quantity thresholds as established in the IMDG Code.

iii. Where there is no specific UN Number for such dangerous goods – then the shipper shall consult with their Dangerous Goods Safety Advisor to confirm maximum weight or volumetric allowances.

22. Markings and Labels.

i. The shipper/consignor of dangerous goods shall ensure that all packagings, road vehicles, freight containers, portable tanks, unit loads, large packagings containing dangerous goods to be brought into the area covered by these Bye-Laws must be marked, labeled and placarded in accordance with the requirements of the IMDG-Code.

ii. Marks, labels and placards must correspond to the respective contents.

iii. Those marks, labels and placards not applicable must be removed.

iv. Packagings, large packagings and portable tanks may be used only if they bear the respective approval markings.

v. Containers are to comply with the International Convention of Safe Containers (see definitions).

23. Dangerous Goods in Containers and Vehicles.

The consignor of dangerous goods in containers or vehicles shall ensure that:-

i. all containers and vehicles are in compliance with current national legislation and the ADR;

ii. the transport document detailing all the dangerous goods carried includes:
   a. When appropriate, the large container or vehicle packing certificate
   b. The instructions in writing
   c. Means of identification, which include a photograph, for each member of the vehicle crew;

iii. the dangerous goods to be carried are authorised for carriage in accordance with ADR (by means of confirmation from the consignor, or otherwise);

iv. containers comply with the International Convention of Safe Containers;

v. the vehicles and loads have no obvious defects, leakages or cracks or missing equipment;

vi. the danger labels and markings prescribed for the vehicles and containers have been affixed;

vii. the equipment, including fire extinguishers prescribed in the written instructions for the driver is on board the vehicle;

viii. the driver and crew are suitably trained in advance of any work involving dangerous goods. Drivers must hold a valid ADR driver training certificate.

24. Packaging.

All packaging shall be UN approved and in full compliance with the requirements and specifications of Chapter 6.1 of the ADR and Chapter 6.1 of the IMDG Code.

25. Loss or escape of Dangerous Goods.

No person shall open or otherwise interfere with seals, valves, covers or caps on dangerous goods packagings, containers or receptacles without express approval from the Harbour Master, nominee or authorised Officer or Representative of the Company.

26. Actions on loss or escape of Dangerous Goods.

Persons responsible for handling and transport of dangerous goods shall ensure, before commencement of cargo handling operation involving dangerous goods, that all staff engaged in the operation receive information about the presence of dangerous goods, hazards inherent in the goods and applicable safety precautions to be taken in the event of a leakage or spillage or other loss of dangerous goods. The relevant Safety Data Sheet (SDS) for each dangerous good and the “Instructions in Writing” shall be available within reasonable proximity to all operations. The person in charge shall take the following general actions on becoming aware of such loss:-

i. Notify VTS Dublin VHF Ch. 12.

ii. Inform the Port Operations, Telephone +353 1 887 6858/+353 1 887 6859

iii. Inform the Emergency Services (Fire, Ambulance, Gardaí). Telephone 999 / 112

iv. Do not risk tackling a fire – wait for Emergency Services.

v. If safe to do so the person in charge may deploy containment measures strictly in accordance with the specific dangerous goods' Safety Data Sheet and "Instructions in Writing" – if in doubt merely raise the alarm and take measures to prevent dangerous goods entering any drains or the water.

27. Road vehicles carrying Dangerous Goods.

All vehicles carrying dangerous goods on public roads shall be in compliance with the provisions of Chapter 9.1, 9.2, 9.3, 9.4, 9.5, 9.6, 9.7 and 9.8 of the ADR.

All vehicles for the carriage of dangerous goods on public roads shall have in place a vehicle certificate of approval or a vehicle certificate of approval (national transport only) as defined in the Carriage of Dangerous Goods by Road Regulations (as amended) which:

i. is issued by the state in which the vehicle is registered, and is in date,

ii. certifies that the vehicle may be used to carry such dangerous goods as it is carrying at the particular time.

Vehicles used to transport dangerous goods on public roads are subject to regular checking and certification. The Road Safety Authority oversees the annual vehicle certification process.

28. Rail vehicles carrying Dangerous Goods.

Rail vehicles shall be in compliance with the provisions of the Carriage of Dangerous by Rail Code (R.I.D.).

29. Marking of Transport units carrying Dangerous Goods.

Vehicles transporting dangerous goods shall be marked with ADR orange plates (front and rear). When carrying containers or bulk (unpackaged loose material) the container will also be placarded with the appropriate class label on all four sides of the freight container and on both sides and rear for bulk.

Bulk vehicles carrying one type of dangerous good shall also identify the goods by using the numbered orange plates on both sides of the bulk container.

Irish Defence Force Vehicles are exempt from these provisions.

30. Training of Drivers carrying Dangerous Goods.

Each person driving a vehicle on public roads, carrying dangerous goods shall be in possession of a valid driver training certificate issued by the Health and Safety Authority (HSA). This certificate shall remain in force for a period of 5 years from the date of its issue as follows:

The duties of drivers of dangerous goods are:-

- Carry ADR driver training certificate at all times whilst in charge of a dangerous goods load.
- Check all requirements on board – check labels/markings/PPE/Fire kit.
- Have Photographic Identification at all times.
- Read and understand documentation including “instructions in Writing” and the Transport document.
- Check Load security.
- Keep vehicle marking and placards clean.
- Follow emergency procedures.
- Inform Garda and Emergency services if any issues arise.

Driver Certificates detail what classes of dangerous goods may be carried by the driver and whether packages only or packages and tanks may be driven by the driver.

31. Unattended Vehicles carrying Dangerous Goods.

Dangerous goods vehicles may not be unmanned by the vehicle crew unless the transport unit is in an attended and secure area.

All requests for derogation of unattended vehicles must be in writing to the Company stating Dangerous Goods class (UN specific) and must be accompanied by risk assessment and relevant Safety Data Sheet and shall only be authorised by the Harbour Master, his nominee or authorised Officer or Representative of the Company.

32. Overnight Parking of Vehicles carrying Dangerous Goods.

Dangerous goods vehicles shall not be parked up or stored on the Port overnight. In unforeseen circumstances a special authorisation to hold the vehicle overnight shall only be granted by the Company.

All requests for derogation of overnight parking location must do so in writing to the Company stating Dangerous Goods class (UN specific) and must be accompanied by risk assessment and relevant Safety Data Sheet. Such authorisation shall be subject to conditions as may be deemed appropriate by the Harbour Master, nominee or authorised Officer or Representative of the Company.

33. Dangerous Goods and Transit Sheds.

Dangerous goods may not be brought into or through any transit shed or enclosure without the express approval of the Harbour Master, nominee or authorised Officer or Representative of the Company.

All Port Terminal and tenants requesting derogation of storage location must do so in writing to the Company stating Dangerous Goods class (UN specific) and must be accompanied by risk assessment and relevant Safety Data Sheet

34. Ships Signals

The Master of every vessel loading, unloading or having on board dangerous goods in the Port shall display "No Smoking" signs as relevant in prominent positions on the vessel.

The Master of every vessel loading, unloading or having on board dangerous goods or having empty uncleaned cargo spaces following the carriage of dangerous goods shall display the International Code of Signals Flag "B" by day. In the hours of darkness all such vessels shall display an all-round red light in a prominent location. In the event that this provision cannot be fully met – the Master shall display these signals at a location determined by the Harbour Master or nominee.

35. Weather Precautions

Subject to the direction of the Harbour Master, his nominee or an authorised Officer or Representative the Masters of vessels carrying dangerous goods shall not authorise the loading/unloading of these goods in weather conditions which are likely to increase the risks of loading/unloading. Operational limitations for each terminal crane or lifting equipment shall be adhered to.

36. Management of Vessels

The vessel's Master shall ensure that there are sufficient and appropriately trained personnel on board at all times.

37. Bunkering of Vessels

No vessel with dangerous goods on board shall be permitted to bunker unless express authorisation is given by the Harbour Master or nominee.

All bunkering shall be pre-notified to the Harbour Master or nominee, and the Company controls such bunkering under a Standard Operating Procedure.

When approval is given by the Harbour Master or nominee the following conditions apply.

i. Flammable liquids having a flashpoint of up to 55°C may be supplied only at approved fixed shore bunker installations.

ii. Flammable liquids having a flashpoint above 55°C may be supplied also by tankers.

iii. Lubrication oils having a flashpoint above 100°C may be supplied also by road tank vehicles provided the following conditions are complied with:

   a. a quick-release coupling is used that automatically closes the hose off at both sides so as to interrupt liquid flow; and
   b. a wireless or cable-operated remote control of the road tank vehicle cargo pump is put on board which allows the road vehicle pump to be cut off from ship.
   c. The supplier of lubrication oil must notify time and location of supply to Port Authority.

iv. Tankers loaded with flammable liquids having a flashpoint of up to 55°C or empty tankers which are neither gas-free nor inerted after carriage of such cargo, are permitted to take bunkers only through a fixed connection of pipes or hoses. Bunkering of these tankers is prohibited during loading, unloading, degassing, and inerting.

v. Ships other than tankers mentioned under (iv) may, in the absence of manifolds or couplings at bunker tank for a fixed connection of pipes or hoses, take bunkers by using a type-approved hose nozzle provided that bunker operation is carried out at a fixed shore bunker installation. The hose must be supported, and the operation continuously supervised.

vi. When bunker is supplied by tanker or by road tank vehicle, the following precautions are to be complied with:

   a. quantity, pump rate and maximum pressure shall be coordinated;

   b. means of communication and emergency stop procedure must be conformed;

   c. ships must be safely moored, hoses to be supported;

   d. only tested hoses must be used;

   e. drip trays to be positioned and scuppers to be closed;

   f. ship and vehicle to be connected by a grounding connection; and hose connections shall be supervised at all times.

vii. Prior to commencement of bunker operations from tankers or road tank vehicle, a work instruction checklist must be completed by the persons responsible. These responsible persons must ensure that working conditions and procedures established in and agreed to by the Company checklist are complied with.

38. Use of Tools and Equipment likely to cause heat or sparks

Repair works in the meaning of this regulation are all kinds of hot works (excluding welding and burning operations referred to at Section 14 of these regulations) which may take place on entire tankers and, furthermore, all kinds of works carried out in cargo tanks, slop tanks, cofferdams, empty spaces adjacent to cargo tanks, cargo pump rooms and compressor rooms as well as all kinds of works carried out in a spherical range of 3 metres around openings of cargo tanks that might emit flammable gases. Details on the required Hot Work permit are given at Section 14 – *Fire Precautions* of these bye-laws.

The holder of the approval (or work permit) is responsible for compliance with the conditions laid down therein. The area where repair works are carried out must be free of noxious or flammable gases or vapours. The Company is empowered to require that gas-free condition must be verified in the form of a gas-free certificate. A work permit shall be raised and displayed at the place of work together with the access point to the vessel.

39. Use of Dry Docks for Vessels carrying Dangerous Goods.

A vessel containing dangerous goods shall not enter a dry dock unless expressly authorised by the Harbour Master or nominee.

40. Ships Use of Shore based Electrical Power.

No electric power shall be supplied from shore to vessels carrying dangerous goods unless necessitated for safety or emergency reasons. Such use shall require the prior authorisation of the Harbour Master or nominee. Where such authorisation is given then specific conditions shall apply to this power supply and a professional electrical engineer shall be retained to supervise such installation such that the safety of the installation is ensured and a hot work permit is in existence for the duration of such supply. This installation shall take guidance, where appropriate from the requirements of the "*Irish Rules for Electrical Installations ET 103:2011*" (it should be understood that this guidance is not intended for shore-to-ship installations), the most appropriate good practice is that stated below taken from the Det Norske Veritas's publication of July 2012 "*Electrical Shore Connections"* which specifies the following provisions on flexible shore to ship connections.

i. There shall be installed equipment enabling efficient cable handling and connection.

ii. The shore connection cable shall be connected by plug and socket connection. Plugs and sockets shall be designed in such a way that incorrect connection is not possible.

iii. Connection or opening of the plug and socket with power on shall not be possible.

iv. The plug and socket system shall be of a type tested design, suitable for marine use.

v. The plug and socket system shall include a pilot contact for verification of correct connection of the plug and socket. This pilot contact shall be used for interlocks in the circuit breaker control.

vi. The flexible cable shall be terminated close to the ship's side, and not be used as a part of the fixed cable installation in the vessel. A separate ship-side circuit breaker is not required where the flexible cable is terminated.

Guidance on shore supplied electricity is given by the IMO.

41. Use of Portable Electrical Equipment on board Ships.

No portable electrical equipment, such as power tools or extension lamps may be used in spaces which have previously contained flammable liquids or gases, unless such space has been gas-tested to confirm that no explosive atmosphere is present and a hot-work permit has been issued by the responsible person and also approved by the Harbour Master or his nominee. The Harbour Master or nominee may authorise the use of lighting without prior gas testing in certain circumstances – in this case only "Ex-Rated" lamps may be used.

42. Power to Remove Dangerous Goods from Port

The Harbour Master, nominee or an authorised Officer or Representative of the Company shall have the power to have removed from the Port area any dangerous goods. Costs arising from such removals and storage and transport costs shall be recovered from the owner as a simple contract debt, in any Court of competent jurisdiction.

43. Harbour Master's Powers.

The Harbour Master, nominee or an authorised Officer or Representative of the Company shall have the power to relax or waive any provision of these bye-laws, where such relaxation or waiver is justified by practical considerations and where it is reasonable to do so (excluding commercial gain or expediency).

Any such relaxation or waiver will be subject to whatever conditions are imposed by the Company.

Part II NON-BULK DANGEROUS GOODS (PACKAGED)

Class 1 – EXPLOSIVES

Class 1 (Explosives) are regulated under separate class-specific bye-laws of Dublin Port Company and legislated for by the Explosives Act 1875.

Class 2 - GASES

44. General

This class comprises compressed gases, liquefied gases, dissolved gases, refrigerated liquefied gases, mixtures of one or more gases with one or more vapours of substances of other classes and articles charged with a gas and aerosols.

A gas is a substance which:

(i) at 50°C has a vapour pressure greater than 300 kPa; or
(ii) is completely gaseous at 20°C at a standard pressure of 101.3 kPa.

The transport condition of a gas is described according to its physical state as:

(iii) Compressed gas: a gas which when packaged under pressure for transport is entirely gaseous at -50°C; this category includes all gases with a critical temperature less than or equal to -50°C;

(iv) Liquefied gas: a gas which when packaged under pressure for transport is partially liquid at temperatures above -50°C. A distinction is made between:

a) High pressure liquefied gas: a gas with a critical temperature between -50°C and +65°C, and
b) Low pressure liquefied gas: a gas with a critical temperature above +65°C;

(v) Refrigerated liquefied gas: a gas which when packaged for transport is made partially liquid because of its low temperature; or

(vi) Dissolved gas: a gas which when packaged under pressure for transport is dissolved in a liquid phase solvent.

According to their chemical properties or physiological effects, which may vary widely, gases may be:

- flammable
- non-flammable
- non-toxic
- toxic
- supporters of combustion
- corrosive
- or may possess two or more of these properties simultaneously.

Some gases are chemically and physiologically inert. Such gases as well as other gases, normally accepted as non-toxic, will nevertheless be suffocating in high concentrations.

Many gases of this class have narcotic effects which may occur at comparatively low concentrations or may evolve highly toxic gases when involved in a fire.

All gases which are heavier than air will present a potential danger if allowed to accumulate in the bottom of cargo spaces.

Gases are normally transported under pressure varying from high pressure in the case of compressed gases to low pressure in the case of refrigerated gases.

Class 2 is subdivided further according to the primary hazard of the gas during transport:

- Class 2.1 Flammable gases
- Class 2.2 Non-flammable, non-toxic gases
- Class 2.3 Toxic gases

Note
"Toxic" has the same meaning as "poisonous"

45. Exemptions (Class 2.2).

46. Maximum Quantities on Board Vessels and on Vehicles.

These bye-laws apply to gases carried in containers, cylinders, Multi-element Gas Containers (MEGC) and not to bulk gas carrier vessels.

The carriage of Class 2 dangerous Goods shall be in conformance with the International Convention for the Safety of Life at Sea, 1974, and its Protocol of 1988. This convention specifies the manner in which Class 2 goods shall be managed on board vessels.

47. Storage in the Port Area

Class 2, Divisions 1 and 2 dangerous goods may be deposited in Port areas in accordance with the Company-approved Terminal/Tenant/Operator's Dangerous Goods Storage and Emergency Response Plan.

All Port Terminal and tenants requesting derogation of storage time and quantity must do so in writing to the Company stating Dangerous Goods class (UN specific) and must be accompanied by risk assessment and relevant Safety Data Sheet

48. Removal from Port Area

Class 2 dangerous goods shall be removed from the Port according to the limits specified below. The Harbour Master, his nominee or an authorised Officer or Representative of the Company shall be empowered to have any such goods in transit storage removed from the Port on demand.

i. Class 2 Division 1 (flammable gases) shall be passed from ship to road vehicle or vice versa without delay and may remain within the Terminal area for a maximum of three (3) days, including weekends and Public holidays.

ii. Class 2 Division 2 (non-flammable, non-toxic gases) shall be passed from ship to road vehicle or vice versa without delay and may remain within the Terminal area for a maximum of three (3) days, including weekends and Public holidays.

iii. Class 2 Division 3 (toxic gases) shall be passed from ship to road vehicle or vice versa without delay and shall not be deposited within the Port area.

iv. The maximum quantity of Class 2.1 dangerous goods which may be stored at any terminal is twenty five (25) tonnes.

v. The maximum quantity of Class 2.2 dangerous goods which may be stored at any terminal is twenty five (25) tonnes.

vi. No Class 2.3 dangerous goods may be stored at the Port.

Maximum Quantity allowed in the Terminal

Class 2.1:	25 tonnes.
Class 2.2:	25 tonnes.
Class 2.3:	A single shipment quantity.

Maximum Duration of these goods allowed at the Terminal

Class 2.1:	3 days.
Class 2.2:	3 days.
Class 2.3:	Storage not permitted.

UN 1001 Acetylene shall not be stored at any terminal in the Port.

Class 3 – FLAMMABLE LIQUIDS (other than petroleum spirit, common petroleum and fuel oil)

Class 3 includes the following substances:

(i) Flammable liquids.

(ii) Liquid desensitized explosives.

Flammable liquids are liquids, or mixtures of liquids, or liquids containing solids in solution or suspension (such as paints, varnishes, lacquers, etc., but not including substances which, on account of their other dangerous characteristics, have been included in other classes) which give off a flammable vapour at or below 60°C closed-cup test - normally referred to as the "flashpoint". This also includes:

(iii) Liquids offered for transport at temperatures at or above their flashpoint; and

(iv) Substances transported or offered for transport at elevated temperatures in a liquid state, which give off a flammable vapour at temperatures equal to or below the maximum transport temperature.

However, neither these Bye-Laws nor the IMDG need apply to such liquids with a flashpoint of more than 35°C, which do not sustain combustion.

Liquid desensitized explosives are explosive substances which are dissolved or suspended in water or other liquid substances, to form a homogeneous liquid mixture to suppress their explosive properties. Entries in the Dangerous Goods List for liquid desensitized explosives are UN 1204, UN 2059, UN 3064, UN 3343, UN 3357 and UN 3379 and are classified as Class 3 Flammable liquids.

49. Maximum Quantity on Board Vessel

No quantity limitations are prescribed by the Company for vessel quantities.

50. Storage in the Port Area

Class 3 dangerous goods may be deposited in Port areas in accordance with the Company-approved Terminal/Tenant/Operator's Dangerous Goods Storage and Emergency Response Plan.

All Port Terminal and tenants requesting derogation of storage time and quantity must do so in writing to the Company stating Dangerous Goods class (UN specific) and must be accompanied by risk assessment and relevant Safety Data Sheet

51. Removal from Port Area

Class 3 dangerous goods shall be removed from the Port according to the limits specified below. The Harbour Master, his nominee or an authorised Officer or Representative of the Company shall be empowered to have any such goods in transit storage removed from the Port on demand.

i. Class 3 (flammable liquids) with a flashpoint of 21 degrees Celsius or less than shall be passed from ship to road vehicle or vice versa without delay and without delay and shall not be

deposited within any terminal. Storage of this grade of flammable liquid is permitted at the Port for 1 day. The maximum quantity that may be stored is a single shipment quantity.

ii. Class 3 (flammable liquids) with a flashpoint of greater than 21 degrees Celsius shall be passed from ship to road vehicle or vice versa without delay and may remain within the Terminal area for a maximum of seven (7) days, including weekends and Public holidays. The maximum quantity that may be stored is 300 tonnes.

Maximum Quantity allowed in any Terminal

Class 3 packing Group 1:	A single shipment quantity.
Class 3 packing Group 2:	300 tonnes.
Class 3 packing Group 3:	300 tonnes.

Maximum Duration of these goods allowed at any Terminal

Class 3 packing Group 1:	Storage not permitted
Class 3 packing Group 2:	7 days
Class 3 packing Group 3:	7 days.

52. Pumping/decanting or transfer of Flammable Liquids of Class 3.

Class 3 dangerous goods shall not be pumped or decanted within the Port except with the permission of the Harbour Master, his nominee or an authorised Officer or Representative of the Company. For oil terminals this approval may be permanent.

Any pumping or decanting operation with Class 3 dangerous goods shall have the relevant Safety Data Sheet supplied in accordance with IMO Resolution *MSC.150(77) on Safety Data Sheets for MARPOL Annex I cargoes and marine fuel oils.*

Class 4 – FLAMMABLE SOLIDS; SUBSTANCES LIABLE TO SPONTANEOUS COMBUSTION; SUBSTANCES WHICH, IN CONTACT WITH WATER, EMIT FLAMMABLE GASES.

In the IMDG Code, class 4 deals with substances, other than those classified as explosives, which, under conditions of transport, are readily combustible or may cause or contribute to a fire. Class 4 is subdivided as follows:

Class 4.1 Flammable solids
Solids which, under conditions encountered in transport, are readily combustible or may cause or contribute to fire through friction; self-reactive substances (solids and liquids) which are liable to undergo a strongly exothermic reaction; solid desensitised explosives which may explode if not diluted sufficiently;

Class 4.2 Substances liable to spontaneous combustion
Substances (solids and liquids) which are liable to spontaneous heating under normal conditions encountered in transport, or to heating up in contact with air, and being then liable to catch fire;

Class 4.3 Substances which, in contact with water, emit flammable gases
Substances (solids and liquids) which, by interaction with water, are liable to become spontaneously flammable or to give off flammable gases in dangerous quantities.

53. Storage in the Port Area

Class 4.1, 4.2 and 4.3 dangerous goods may be deposited in Port areas in accordance with the Company-approved Terminal/Tenant/Operator's Dangerous Goods Storage and Emergency Response Plan.

All Port Terminal and tenants requesting derogation of storage time and quantity must do so in writing to the Company stating Dangerous Goods class (UN specific) and must be accompanied by risk assessment and relevant Safety Data Sheet

54. Removal from Port Area of Class 4 substances.

i. Class 4.1, 4.2 and 4.3 dangerous goods shall be removed from the Port according to the limits specified below. The Harbour Master, his nominee or an authorised Officer or Representative of the Company shall be empowered to have any such goods in transit storage removed from the Port on demand.

All Class 4 dangerous goods shall be removed from the Port within 7 days of arrival.

Maximum Quantity allowed in any Terminal

Class 4.1:	200 tonnes.
Class 4.2:	200 tonnes.
Class 4.3:	200 tonnes.

Maximum Duration of these goods allowed at any Terminal

Class 4.1:	7 days.
Class 4.2:	7 days.
Class 4.3:	7 days.

Class 5 – OXIDIZING SUBSTANCES AND ORGANIC PEROXIDES.

In the IMDG Code, class 5 is sub-divided into two classes as follows:

Class 5.1 - Oxidizing substances
Substances which, while in themselves not necessarily combustible, may, generally by yielding oxygen, cause, or contribute to, the combustion of other material. Such substances may be contained in an article;

Class 5.2 - Organic peroxides
These are organic substances which may be considered derivatives of Hydrogen Peroxide. Organic peroxides are thermally unstable substances which may undergo exothermic self-accelerating decomposition. In addition, they may have one or more of the following properties:
- be liable to explosive decomposition;
- burn rapidly;
- be sensitive to impact or friction;
- react dangerously with other substances;
- cause damage to the eyes

Each consignment of Organic Peroxides arriving at the Port must be pre-notified and a copy of the Safety Data Sheet specific to the load must be provided via MIS at least 24 hours prior to delivery.

55. Maximum Quantity on Board Vessel (Class 5.1 and 5.2)

The vessel Master shall ensure that all carriage of ammonium is in accordance with the IMDG Code and the International Convention for the Safety of Life at Sea, 1974.

56. Special Class 5.1 goods.

- A special category of Class 5.1 Dangerous goods is **AMMONIUM NITRATE** which is liable to self-heating sufficient to initiate decomposition is prohibited from transport under the IMDG Code and is therefore not acceptable at Dublin Port. Both the IMDG and ADR Codes define 10 classes of Ammonium Nitrate. At least one type of Ammonium Nitrate is prohibited for both Marine and land transport. Ammonium Nitrite is also prohibited for transport.

  There are exceptions for Ammonium Nitrates which are classified with the following UN numbers.

  UN1942, UN2067, UN2071, UN2426 and UN3375

  These specific goods are allowed under the IMDG code and are not prohibited at the Port.

  The IMDG code lists 10 variations of Ammonium Nitrate – with three grades sharing the number UN3375. There are two grades which are prohibited for transport and do not have a UN number. A further compound described as Ammonium Nitrate using the number UN0222 is classified as Class 1.1D and is regulated under the specific Dublin Port Bye-Laws on Class 1 Dangerous Goods.

- HYDROGEN PEROXIDE STABILIZED or HYDROGEN PEROXIDE, AQUEOUS SOLUTION, STABILIZED with more *than 60% hydrogen peroxide* are Class 5.1 dangerous good with number UN 2015, shall not be brought into the Port without express permission from the Harbour Master or his nominee.

57. Storage in the Port Area

Class 5.1 dangerous goods dangerous goods may be deposited in Port areas in accordance with the Company-approved Terminal/Tenant/Operator's Dangerous Goods Storage and Emergency Response Plan.

Class 5.2 (Organic peroxides) dangerous goods may not be deposited in Port areas.

All Port Terminal and tenants requesting derogation of storage time and quantity must do so in writing to the Company stating Dangerous Goods class (UN specific) and must be accompanied by risk assessment and relevant Safety Data Sheet.

58. Removal from Port Area of Class 5.1

In the case of Class 5.1 the storage time limit at any Terminal is 1 day. The maximum quantity which may be stored is 50 tonnes on the Terminal.

Class 5.1 dangerous goods shall be removed from the Port according to the limits specified above. The Harbour Master, his nominee or an authorised Officer or Representative of the Company shall be empowered to have any such goods in transit storage removed from the Port on demand.

59. Removal from Port Area of Class 5.2

Class 5.2 (Organic peroxides) presents a number of special technical requirements and it is recommended that direct delivery for loading or discharging of such cargoes should be arranged particularly if they are in cargo transport units.

The maximum quantity permitted for loading or unloading of organic peroxides with a Subsidiary hazard label "explosives" is 15 tonnes. The label on such a consignment shall include the Class 5.2 and Class 1 symbols.

Maximum Quantity allowed in any Terminal

Class 5.1:	50 tonnes.
Class 5.2:	a single shipment quantity.

Maximum Duration of these goods allowed at any Terminal

Class 5.1:	1 day.
Class 5.2:	Storage not permitted.

CLASS 6 - TOXIC AND INFECTIOUS SUBSTANCES

Introductory notes

Note 1 The word "toxic" has the same meaning as "poisonous".

Note 2 Genetically modified micro-organisms which do not meet the definition of a toxic or an infectious substance shall be considered for classification in class 9 and assigned to UN 3245.

Note 3 Toxins from plant, animal or bacterial sources which do not contain any infectious substances, or toxins that are contained in substances which are not infectious substances, shall be considered for classification in class 6.1 and assigned to UN 3172.

Class 6 is subdivided into two classes as follows:

Class 6.1 - Toxic substances
These are substances liable either to cause death or serious injury or to harm human health if swallowed or inhaled, or by skin contact.

Class 6.2 - Infectious substances
These are substances known or reasonably expected to contain pathogens. Pathogens are defined as micro-organisms (including bacteria, viruses, rickettsia, parasites, fungi) and other agents such as prions, which can cause disease in humans or animals

60. General Precautions

The Master of any vessel involved in loading/unloading shall, with the berth operator responsible at the Port, and before commencement of cargo handling operations, ensure that all staff engaged in the handling of Class 6.1 dangerous goods receive information about the presence of dangerous goods, hazards inherent in the goods and applicable safety precautions to be taken in the event of a leakage or spillage or other loss of dangerous goods. The relevant Safety Data Sheet for each dangerous good shall be made available to the Company by the Master of the vessel or the berth operator.

61. Storage in the Port Area

Class 6.1 dangerous goods may be deposited in Port areas in accordance with the Company-approved Terminal/Tenant/Operator's Dangerous Goods Storage and Emergency Response Plan.

Class 6.2 dangerous goods may not be deposited in Port areas.

All Port Terminal and tenants requesting derogation of storage time and quantity must do so in writing to the Company stating Dangerous Goods class (UN specific) and must be accompanied by risk assessment and relevant Safety Data Sheet

62. Removal from Port Area

Class 6.1 dangerous goods shall be removed from the Port according to the limits specified below. The Harbour Master, his nominee or an authorised Officer or Representative of the Company shall be empowered to have any such goods in transit storage removed from the Port on demand.

Class 6.1 the terminal storage time limit is three (3) days. The maximum storage quantity is 50 tonnes on any terminal.

Class 6.2 dangerous goods shall be removed from the Port immediately following landing or immediately following arrival in the Port of the road transport unit. Intermediate storage of Class 6.2 is prohibited at the Port. The quantity permitted for loading or unloading is a single shipment quantity.

Intermediate storage or transit times are shown at Appendix II of these bye-laws.

Maximum Quantity allowed in any Terminal

Class 6.1:	50 tonnes
Class 6.2:	a single shipment quantity.

Maximum Duration of these goods allowed at any Terminal

Class 6.1:	3 days
Class 6.2:	Storage not permitted.

CLASS 7 - RADIOACTIVE MATERIAL

Note: For class 7, the type of packaging may have a decisive effect on classification.

63. Radiological Protection Institute of Ireland (RPII)

Class 7 goods shall not be brought into Dublin Port unless they are in compliance with the Radiological Protection Act 1991 (Ionizing Radiation) Order S.I. No. 125 of 2000. These Regulations require that a license to import and / or export a radioactive source must be issued before the proposed shipment of Class 7 goods. All such goods require written permission from the Harbour Master, his nominee or authorised officer of the Company.

Class 7 goods or articles containing Class 7 substances may only be transported in the licensees' vehicles or in the vehicles of distributors / carriers / transport service providers who are licensed by the RPII. Transport must be undertaken in compliance with the current ADR (land), IMO (sea) or IATA / ICAO (aviation) requirements.

No Class 7 goods shall be loaded to or unloaded from any vessel without an RPII issued license to import and / or export.

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 and any conditions imposed by the RPII.

64. Radiation protection programme

The transport of radioactive material shall be subject to a radiation protection programme. If there is any possibility of loss of containment of radioactive material, the area should be isolated, contained, non-essential personnel evacuated and the Dublin Port Emergency Plan activated. It is the responsibility of the berth operator to establish such contingency plans, taking into consideration the Company Emergency Management Plan.

65. Protection and Safety programme

Protection and safety of personnel provided by the berth operator shall be such that all special requirements imposed by the Radiological Protection Institute of Ireland are fully complied with.

66. Measures to be employed in the Protection and Safety programme

The nature and extent of the measures to be employed in the programme shall be related to the magnitude and likelihood of radiation exposures. Programme documents shall be available, on request, for inspection by the RPII or the Harbour Master, his nominee or authorised Officers and Representatives of the Company.

67. Storage in the Port Area

Class 7 dangerous goods may not be deposited in Port areas.

68. Removal from Port Area

Class 7 dangerous goods shall be removed from the Port immediately upon arrival by road or unloading from a vessel. These goods shall under no circumstance be deposited, even temporarily, at the Port. Appendix II details storage quantities and times for all dangerous goods.

Maximum Quantity allowed in the Port

Class 7: a single shipment quantity

Maximum Duration of these goods allowed at the Port

Class 7: Storage not permitted.

69. Vessels carrying Class 7 goods

Class 7 goods (radioactive materials) shall not be carried on a vessel carrying Class 1 goods (explosives).

CLASS 8 - CORROSIVE SUBSTANCES

Class 8 substances (corrosive substances) means substances which, by chemical action, will cause severe damage when in contact with living tissue or, in the case of leakage, will materially damage or destroy other goods or the means of transport.

70. Storage in the Port Area

Class 8 dangerous goods may be deposited in Port areas in accordance with the Company-approved Terminal/Tenant/Operator's Dangerous Goods Storage and Emergency Response Plan.

All Port Terminal and tenants requesting derogation of storage time and quantity must do so in writing to the Company stating Dangerous Goods class (UN specific) and must be accompanied by risk assessment and relevant Safety Data Sheet

The maximum period for transit storage of this class at the Port is 14 days. The maximum quantity is 200 tonnes as per Appendix II.

71. Removal from Port Area

i. The maximum storage time allowed at any Terminal in the Port is 14 days.

ii. Particular attention to segregation of Class 8 dangerous goods is required as Containers containing different Class 8 dangerous goods shall be segregated, except if the containers are of the exact same substance and UN Number.

Class 8 dangerous goods shall be removed from the Port according to the limits specified below and the Harbour Master, his nominee or an authorised Officer or Representative of the Company shall be empowered to have any such goods in transit storage removed from the Port on demand.

Maximum Quantity allowed in any Terminal

Class 8: 200 tonnes

Maximum Duration of these goods allowed at any Terminal

Class 8: 14 days

CLASS 9 - MISCELLANEOUS DANGEROUS SUBSTANCES AND ARTICLES AND ENVIRONMENTALLY HAZARDOUS SUBSTANCES

Class 9 substances and articles (miscellaneous dangerous substances and articles) are substances and articles which, during transport, present a danger not covered by other classes.

Much of the hazardous wastes exported from the Port may be classified as Class 9. Wastes are legislated under Environmental provisions which must be complied with in addition to the IMDG Code.

72. All Class 9 cargoes

Persons responsible for handling and transport of Class 9 dangerous goods shall, before commencement of cargo handling operation involving dangerous goods, ensure that all staff engaged in the handling of dangerous goods receive information about the presence of dangerous goods, hazards inherent in the goods and applicable safety precautions to be taken in the event of a leakage or spillage or other loss of dangerous goods. The relevant SDS for each dangerous goods consignment shall be available within reasonable proximity to all operations.

73. Storage in the Port Area

Class 9 dangerous goods may be deposited in Port areas in accordance with the Company-approved Terminal/Tenant/Operator's Dangerous Goods Storage and Emergency Response Plan.

All Port Terminal and tenants requesting derogation of storage time and quantity must do so in writing to the Company stating Dangerous Goods class (UN specific) and must be accompanied by risk assessment and relevant Safety Data Sheet

The maximum period for transit storage of this class at the Port is 14 days. The maximum quantity is 200 tonnes as per Appendix II.

74. Removal from Port Area

Class 9 dangerous goods shall be removed from the Port according to the limits specified above and the Harbour Master, his nominee or an authorised Officer or Representative of the Company shall be empowered to have any such goods in transit storage removed from the Port on demand.

Maximum Quantity allowed in any Terminal

Class 9:	200 tonnes.

Maximum Duration of these goods allowed at any Terminal

Class 9	14 days.

Part III – DANGEROUS GOODS SEGREGATION IN PORT AREAS

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

75. Port Stowage of Containers with Dangerous Goods of different Classes
Containers containing dangerous goods of different classes shall not be stowed above each other.

76. Port Stowage of Containers with Dangerous Goods of Class 8 (Corrosives)
Containers containing different Class 8 dangerous goods shall not be stowed above each other, except if the containers are of the exact same substance and UN Number. (See Appendix III)

77. Direct Shipments to or from the Port.
Cargoes of Class 6.2 and Class 7 are normally allowed into the port area for direct shipment or delivery only. However, the Harbour Master, his nominee or authorised Officer or Representative of the Company may allow these cargoes to be temporarily staged on-site, if through unforeseen circumstances, these cargoes have to be temporarily held, they shall be in designated areas. Dublin Port will consult the segregation requirements of the individual class as stipulated in the IMDG Code when establishing specific requirements in these exceptional circumstances.

78. Cleaning of containers and portable tanks at the Port.
In certain circumstances the Harbour Master, his nominee or an authorised Officer or Representative of the Company may authorise cleaning of container and portable tanks which previously contained dangerous goods. Any such works shall be carried out in a special area, away from those where dangerous goods are stored. Such areas shall be adequately designed and equipped to avoid contaminated washing water ending up in the soil, waterways or sewerage system.

After un-loading/ stripping a container with dangerous goods to allow such cleaning, all placards shall be removed from the container following the cleaning operation.

SCHEDULE 1

Restrictions on vessel and vehicle quantities and vessels loading/unloading explosives are regulated under separate bye-laws under the provisions of the Explosives Act 1875.

SCHEDULE 2 –INTERMEDIATE STORAGE OF DANGEROUS GOODS

The table below shows the maximum quantity and transit storage times of packaged dangerous goods within the terminals at Dublin Port. Segregation of dangerous goods shall follow the requirements of chapter 7.2 of the IMDG Code

Class	Max Quantity/Terminal	Max Storage Time	Comments
2.1	25 tonnes	3 Days	UN1001 Acetylene shall not be stored in the Port
2.2	25 tonnes	3 Days	
2.3	a single shipment quantity	Storage not permitted	
3 (PG I)	a single shipment quantity	Storage not permitted	flashpoint of 21 degrees Celsius or less
3 (PG II/III)	300 tonnes	7 Days	flashpoint of greater than 21 degrees Celsius
4.1	200 tonnes	7 Days	
4.2	200 tonnes	7 Days	
4.3	200 tonnes	7 Days	
5.1	50 tonnes	1 Day	
5.2	a single shipment quantity	Storage not permitted	
6.1	50 tonnes	3 Days	Cyanides and azides shall be limited to 24 hours maximum
6.2	a single shipment quantity	Storage not permitted	
7	a single shipment quantity	Storage not permitted	Permit required from RPII
8	200 tonnes	14 Days	
9	200 tonnes	14 Days	

APPENDIX I – HIGH CONSEQUENCE DANGEROUS GOODS

Non Port Facilities and transport operators are required to have a Security Plan in place in order to deal with High Consequence Dangerous Goods. Note that these provisions of the IMDG Code do not apply to the restricted areas of the Port, as the ISPS Code for port facility security plans covers measures designed to protect the port facility and ships, persons, cargo, cargo transport units and ship's stores within the port facility. The Company has a security plan which addresses the following:

1. measures designed to prevent weapons or any other dangerous substances and devices intended for use against persons, ships or ports and the carriage of which is not authorized, from being introduced into the port facility or on board a ship;

2. measures designed to prevent unauthorized access to the port facility, to ships moored at the facility, and to restricted areas of the facility;

3. procedures for responding to security threats or breaches of security, including provisions for maintaining critical operations of the port facility or ship/port interface;

4. procedures for responding to any security instructions from the Government;

5. procedures for evacuation in case of security threats or breaches of security;

6. duties of port facility personnel assigned security responsibilities and of other facility personnel on security aspects;

7. procedures for interfacing with ship security activities;

8. procedures for the periodic review of the plan and updating;

9. procedures for reporting security incidents;

10. identification of the port facility security officer including 24-hour contact details;

11. measures to ensure the security of the information contained in the plan;

12. measures designed to ensure effective security of cargo and the cargo handling equipment at the port facility;

13. procedures for auditing the port facility security plan;

14. procedures for responding in case the ship security alert system of a ship at the port facility has been activated; and

15. procedures for facilitating shore leave for ship's personnel or personnel changes, as well as access of visitors to the ship including representatives of seafarers welfare and labour organizations.

The following is an indicative list of high consequence dangerous goods and is given for guidance for non- Company users of the port facility:

Class 1 – explosives are regulated by specific Class 1 Explosives Bye-Laws

Class 2.1 Flammable gases in quantities greater than 3000 L in a road tank vehicle, a railway tank wagon or a portable tank

Class 2.3 Toxic gases

Class 3 Flammable liquids of packing groups I and II in quantities greater than 3000 L in a road tank vehicle, a railway tank wagon or a portable tank

Class 3 Desensitized liquid explosives

Class 4.1 Desensitized solid explosives

Class 4.2 Goods of packing group I in quantities greater than 3000 kg or 3000 L in a road tank vehicle, a railway tank wagon, a portable tank or a bulk container

Class 4.3 Goods of packing group I in quantities greater than 3000 kg or 3000 L in a road tank vehicle, a railway tank wagon, a portable tank or a bulk container

Within Class 5.1 Oxidizing liquids of packing group I in quantities greater than 3000 L in a road tank vehicle, a railway tank wagon or a portable tank

Within Class 5.1 Perchlorates, ammonium nitrate, ammonium nitrate fertilizers and ammonium nitrate emulsions or suspensions or gels in quantities greater than 3000 kg or 3000 L in a road tank vehicle, a railway tank wagon, a portable tank or a bulk container

Within Class 6.1 Toxic substances of packing group I

Within Class 6.2 Infectious substances of category A (UN Nos. 2814 and 2900)

Class 7 Radioactive material in quantities greater than 3000 A1 (special form) or 3000 A2, as applicable, in Type B(U) or Type B(M) or Type C packages

Within Class 8 Corrosive substances of packing group I in quantities greater than 3000 kg or 3000 L in a road tank vehicle, a railway tank wagon, a portable tank or a bulk container

APPENDIX II –SEGREGATION OF DANGEROUS GOODS

Classes		**2.1**	**2.2**	**2.3**	**3**	**4.1**	**4.2**	**5.1**	**5.2**	**6.1**	**7**	**8**	**9**
Flammable gases	**2.1**	**0**	**0**	**0**	**S**	**A**	**S**	**0**	**S**	**S**	**0**	**A**	**0**
Non-toxic, non-flammable gases	**2.2**	**0**	**0**	**0**	**A**	**0**	**A**	**0**	**0**	**A**	**0**	**0**	**0**
Toxic gases	**2.3**	**0**	**0**	**0**	**S**	**0**	**S**	**0**	**0**	**S**	**0**	**0**	**0**
Flammable liquids	**3**	**S**	**A**	**S**	**0**	**0**	**S**	**A**	**S**	**S**	**0**	**0**	**0**
Flammable solids, self-reactive substances & desensitized explosives	**4.1**	**A**	**0**	**0**	**0**	**0**	**A**	**0**	**A**	**S**	**0**	**A**	**0**
Spontaneously combustible substances	**4.2**	**S**	**A**	**S**	**S**	**A**	**0**	**A**	**S**	**S**	**A**	**A**	**0**
Substances in contact with water, emit flammable gases	**4.3**	**0**	**0**	**0**	**A**	**0**	**A**	**0**	**S**	**S**	**0**	**A**	**0**
Oxidizing substances	**5.1**	**S**	**0**	**0**	**S**	**A**	**S**	**S**	**0**	**S**	**A**	**S**	**0**
Organic peroxides	**5.2**	**S**	**A**	**S**	**S**	**S**	**S**	**S**	**S**	**0**	**A**	**S**	**0**
Toxic substances (liquids and solids)	**6.1**	**0**	**0**	**0**	**0**	**0**	**A**	**0**	**A**	**A**	**0**	**0**	**0**
Corrosives (liquids and solids)	**8**	**A**	**0**	**0**	**0**	**A**	**A**	**A**	**S**	**S**	**0**	**0**	**0**
Miscellaneous dangerous substances and articles	**9**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

The chart identifies three segregation categories for storage in Dublin Port.

Chart Legend

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

"A" indicates segregation requirement "away from …" the other class in that pair (3 meters)

"S" requires the segregation category "separated from …" between the classes of that pair (6 meters)

Note for the segregation table

Cargoes of Classes 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 shall be considered by the Company when establishing specific requirements.

Segregation in Port Areas. The IMO Maritime Safety Committee (MSC), by way of Circular 1/1216 of 26 February 2008 determined several revised recommendations regarding the risk free transport of dangerous goods and related activities within port areas. **Circular MSC 1216 of 2008 establishes that containers containing dangerous goods must not be stowed above each other**.

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