



Signed on behalf of Port of Cork

Company:

J.M. Keenan

Date 18/4/2016

The Minister for Justice and Equality
hereby sanctions these Bye-laws.

GIVEN under my Official Seal,

this 18 day
of April, 2016.

Frances Fitzgerald

Frances Fitzgerald, T.D

Minister for Justice and Equality

**EXPLOSIVES (Port of Cork Company)
BYE- LAWS, 2016.**

**To be made by Port of Cork Company
with the sanction of the
Minister for Justice and Equality.**

1) Authorisation and Commencement

- a) Port of Cork Company, being the Harbour authority within the meaning of Sections 83 of the Harbours Act 1996 in exercise of the powers conferred on it by Section 34 - 38 , of the Explosives Act, 1875, as adapted, hereby, with the sanction of the Minister for Justice and Equality make the following Bye-laws for its Port Facilities at Tivoli Dock Estate and Ringaskiddy Deepwater Facility Cork .
- b) These Bye-laws may be cited as the Explosives (Port of Cork Company) Bye-laws, 2016.
- c) These Bye-laws shall come into operation on the _____ day of _____ 2016
- d) The Interpretation Act, 1937 (No. 38 of 1937), applies to these Bye-laws.

2) Definitions

- a) "Designated Berth" means the berths Tivoli Dock Estate and Ringaskiddy Deepwater Facility at indicated on the maps attached to these byelaws signed by the Government Inspector of Explosives, authorised for the handling, loading and unloading of explosives in accordance with the conditions laid down in the Annex attached hereto;
- b) "Division" means a Hazard Division specified in the First Schedule;
- c) "explosives" means Class I explosives as classified in the manual published by the United Nations Organisation and entitled "Thirteenth Revised Edition of the Recommendations prepared by the United Nations Committee of Experts on the Transport of Dangerous Goods" (ISBN 978-92-1-139143-5) or a later edition thereof which is in substitution for and not an alternative to the edition aforesaid;

- d) "Explosives Officer" means a person appointed under Bye-Law 8;
- e) "Group" means a Compatibility Group specified in the Second Schedule;
- f) "Harbour Master" means the Harbour Master appointed by Cork Port Company and authorised by the Port of Cork Company to perform the functions of the Harbour Master under these Bye-Laws;
- g) "Net Explosive Content (NEC)" means the total mass of explosives without the packaging, casing or other non-explosive material
- h) "Passenger ship" means a vessel which has more than 12 passengers on board at the relevant time.
- i) "Person in charge of explosives" means the person normally having control over the explosives in the Port Facility meaning;
 - i) in the case of explosives on a vessel - the master of the vessel,
 - ii) in the case of explosives being loaded or unloaded at the designated berth - the explosives officer
 - iii) in the case of explosives on a road transport vehicle outside the protected area - the driver of that transport vehicle
- j) "Port Facility" means the land and waters adjacent to the designated berths occupied by the Port of Cork Company the limits of which are marked on attached map;
- k) "Protected area" means an area within the Port Facility on the designated berth within which explosives are handled in the course of loading onto or unloading from a vessel or vehicle and the boundary of which is not less than 10 metres from the explosives;
- l) "Ship" includes any description of vessel or boat used in navigation;

- m) "Vessel" includes 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.
- n) In these Bye-laws:
 - i) a reference to the weight of explosives is a reference to the net weight of the explosives excluding packaging or inert parts thereof.
 - ii) a reference to a Bye-law or Schedule is a reference to a Bye-law of or Schedule to these Bye-laws, and
 - iii) a reference to a paragraph or subparagraph is a reference to a paragraph or subparagraph of the provision in which the reference occurs, unless it is indicated that reference to some other provision is intended.

3) Application

- a) These Bye-Laws shall apply within the limits of the Port Facility occupied or controlled by Port of Cork Company, and shall apply to all explosives except
 - i) Life saving, signaling or distress marine pyrotechnics where these pyrotechnics are held as part of a vessels emergency equipment, provided all safety and signaling devices of Class 1 shall be compliant with any special provisions of the IMDG code as specified in the Class 1 dangerous goods list regarding packaging and stowage instructions and

- ii) Explosives carried in an Irish or Foreign Warship
- b) In accordance with Section 97 of the Explosives Act the Bye laws do not apply to the conveyance of any explosives that are under the control of the Defence Forces and that are conveyed, loaded or unloaded in accordance with regulations made under the Defence Acts by the Minister for Defence
- c) No provision of these Bye laws specifying maximum berth occupancy per annum, maximum quantities of explosives or minimum separation distances shall apply to explosives in Hazard Division 1.4
- d) Notwithstanding anything contained in these Bye-Laws, the Statutory Instruments relating to Explosives shall apply. Where there has been a breach/or departure from any of the Statutory Provision, it shall be the duty of the Explosive Officer to inform the Harbour Master.

4) Explosives for use in Harbour Works

- a) Up to 250 kg NEC weight of Class 1 goods may be conveyed within the Port Facility for immediate use in construction works, demolition works or wreck dispersal provided that:-
 - i) The written approval of the Harbour Master, his nominee or authorised Officer or Representative of the company has first been obtained,
 - ii) The Class 1 goods are conveyed, stored and used in compliance with any conditions imposed by the Harbour Master, his nominee or authorised Officer or Representative of the Company and in consultation with the Garda Siochana and the Government Inspector of Explosives.

5) Explosive Limits

- a) Subject to subparagraph (b) the net explosive content of explosives, the NEC, whether at the designated berth or on a vessel at the designated berth or both, shall not exceed that specified (for the Division of explosives concerned) in Paragraph 1 of Annex 1, or 2, as the case may be, attached hereto. The conditions stipulated in the relevant Annex must be observed:
- b) Where explosives at the designated berth or on a vessel at the designated berth or both, include explosives in Group A, B or F, the aggregate net explosive content of the explosives, the NEC, shall not exceed one-third of the quantity specified in the Annex attached hereto unless –
 - i) the explosives in each of the Groups concerned are separated from any other explosives at the designated berth or on a vehicle or vessel at the designated berth or both, so as to prevent the communication of an explosion to those other explosives, and
 - ii) the quantity thereof in each Group does not exceed one-third of the quantity specified in column 1 of the Annex attached hereto.
- c) Where explosives in different Divisions are at the designated berth or on a ship at the designated berth, then –
 - i) for the purpose of applying the attached Annex and subject to subparagraph (b), the explosives, shall be deemed to be in the Division amongst them which comes highest in the following list, i.e. Division 1.1 (highest), 1.2, 1.3, 1.5, 1.6 and 1.4 (lowest), and

- ii) if the explosives consist of explosives in Division 1.5 and explosives in Division 1.2 or 1.6, all the explosives shall be deemed to be in Division 1.1.
- d) No explosives shall be deposited in any shed, warehouse, building or other place without the express permission in writing of the Harbour Master and only where it is necessary for safety or security reasons and these explosives shall be moved out of the area controlled by the Port Company as soon as is practicable
- e) No vehicle or vessel loaded with explosives shall remain in the Port Facility overnight without the express permission in writing of the Harbour Master and only where it is necessary for safety or security reasons and these explosives shall be moved out of the area controlled by the Port Company as soon as is practicable

6) Authorised Explosives

- a) No vessel carrying explosives shall enter the Port Facility occupied or controlled by Port of Cork Company unless those explosives have been classified in accordance with UN Model Regulations and the requirements of the ADR and IMDG Code and
 - i) where these explosives are to be unloaded within the Port Facility (to the quay or to another vessel) until the Harbour Master or his nominee has been satisfied that the importation into the State of these goods is authorised by means of an importation licence issued by the Minister for Justice & Equality . The vessel shall only enter the Port Facility on being given clearance by the Harbour Master or his nominee, or

- ii) where these explosives are not to be unloaded within the Port except with the express written approval of the Harbour Master or his nominee.
- b) No vehicle carrying explosives shall enter the Port Facility occupied or controlled by Port of Cork Company unless those explosives have been classified in accordance with UN Model Regulations and the requirements of the ADR and IMDG Code and the vehicle has the express written approval of the Harbour Master or his nominee
- c) A person shall not bring explosives into the Port Facility unless the conditions specified in Bye-law 6(a) or (b), as the case may be, are met
- d) The Company may refuse acceptance of consignments of explosives which do not comply with the applicable transport regulations or with the requirements of these Port Bye-Laws or which do not have correct transport documents available, or may prohibit onward transport or place the consignment under safe-keeping until these deficiencies are remedied.
- e) The Harbour Master or his nominee shall have the power to have removed from the Port Facility area any explosives. 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.

7) Duties of Harbour Master

- a) The Harbour Master shall ensure that
 - i) An Explosives Officer, who is a competent person to carry out the duties conferred on him by these Bye-laws, shall be appointed in writing before any explosives are allowed to enter the Port Facility
 - ii) The explosive limits outlined in Bye-law 5 are adhered to

- iii) He provides advance notification of the expected time of arrival at the designated berth of any ship or other vehicle for the purpose of loading or unloading explosives to Garda Siochána Angelsea St Cork as soon as is practicable but not later than 48 hours prior to that time
- iv) He informs the Master of a ship carrying explosives at what time the ship can be berthed and at what time the unloading of explosive can commence. In making his decision the Harbour Master will consider only practical and safety considerations with regard to navigation up the river and tides.
- v) He has a Security Plan in place to cover all times when explosives are within the area controlled by the Port Company. This plan will be developed in conjunction with Garda Siochána Angelsea St Cork. The designated berths shall not be used for the purpose of the loading or unloading of explosives onto or from ships for more than 50 days in a year.
- vi) Loading or unloading of explosives onto or from a ship at the designated berth shall not be carried on between sunset and sunrise unless the Harbour Master after consultation with the Garda Siochana has given his prior consent in writing to such loading or unloading.
- vii) If the loading or unloading of explosives is interrupted or suspended for any reason, then upon the expiration of 3 hours from the time when the loading or unloading is interrupted or suspended, then the Harbour Master shall decide whether
 - (1) The ship shall depart from the designated berth, and anchor at a designated safe point or

(2) Remain at the designated berth

In making his decision the Harbour Master will consider only practical and safety considerations with regard to navigation on the river and tides. The Garda Síochána at Angelsea St should be informed immediately.

viii) The notices required in accordance with Bye-law 13 are available to the Explosives Officer

ix) Adequate and appropriate fire fighting equipment is provided at the designated berth

x) He has an effective port emergency action plan to deal with any emergency arising from the transport, handling, loading and unloading of explosives within the area controlled by the Port Company. This plan will be developed in conjunction with the relevant local emergency services and should include as a minimum information on emergency arrangements, evacuation, access and emergency information as outlined in HSE Information Sheet – Explosives aspects of Port emergency plans contained in Annex 4.

xi) The implementation of the fire safety measures referred to in Bye-law 14(f)

xii) Records are made and kept in accordance with Bye-law 15

8) Appointment and Duties of Explosives Officer

a) No explosive shall be brought within the limits of the Port Facility unless and until there shall be appointed an Explosive Officer in respect of that explosive.

- b) The Explosives Officer shall be appointed in writing by Port of Cork Company, and shall be a competent person who is competent to perform the functions conferred on him by these Bye-Laws efficiently and in accordance with best current practice.
- c) The Explosive Officer shall be in charge of the loading and unloading operations and shall be accountable to the Harbour Master and shall report to him.
- d) It shall be the duty of the Explosives Officer –
 - i) To ensure that the provisions of these Bye-laws are brought to the notice of all persons employed in the loading, unloading or handling of explosives at the designated berth.
 - ii) to supervise generally the handling (including the loading and unloading onto and from ships and vehicles) and the transport of explosives at the designated berth,
 - iii) to ensure compliance with Bye-law 11 with regard to the loading and unloading of explosives at the designated berth
 - iv) to ensure generally the safety and security, as respects explosives, of persons and property at or near the designated berth,
 - v) to ensure that the explosive limits, in accordance with Bye-law 5, for the designated berth are not being exceeded
 - vi) to ensure that explosives being held or transported as aforesaid are secure from loss or theft,
 - vii) To ensure that the Harbour Master is aware that handling (including the loading and unloading onto and from ships and vehicles) is taking

place at the designated berth and if handling is interrupted for more than 3 hours to contact the Harbour Master for advice

- viii) To ensure that prior to the handling of explosives at the designated berth all personnel who will be engaged in the handling of the explosives are aware of the presence of explosives, the hazards inherent in the explosives and the applicable safety precautions to be taken
- ix) To ensure that he is familiar with the contents of the relevant Safety Data Sheet (SDS) and the ADR Instructions in Writing for the explosives being handled and that these are available at the designated berth
- x) In advance, to confirm that he has all the contact details for the Gardai, Fire and other Emergency Services and the representative of the consignee or consignor with the specialist advice, as the case may be.
- xi) In advance, to confirm with the Gardai if they are going to be present during the loading or unloading and if so to ensure the Gardai are present before explosives are loaded or unloaded.
- xii) To ensure that adequate and suitable mechanical handling and lifting equipment is available to safely handle, load and/or unload explosives onto and from ships and vehicles
- xiii) To ensure the minimum number of vehicles required for the efficient loading and unloading of explosives onto or from the ship are present on the designated berth at the same time
- xiv) To ensure that vehicles or cargo do not cover, conceal or impede access to the fire fighting equipment at the designated berth

- xv) To ensure that all persons designated to use the Fire Fighting Equipment at the designated Berth are aware of the location of the equipment and method of operation,
 - xvi) To ensure that in the event of a fire at the designated berth, persons not required for fire fighting or safety purposes are evacuated from the designated berth,
 - xvii) To ensure that the protected area is indicated by notices in accordance with Bye-law 13 and that it is free from rubbish or waste
 - xviii) To ensure that no un-authorized vehicles enter the protected area
 - xix) To ensure that no person shall smoke or display a naked flame or bring matches, cigarette lighter or an unapproved torch into the protected area
 - xx) To ensure that no person under the influence of alcohol or drugs shall be allowed to engage in any activities involving explosives within the Port Facility area
 - xxi) To ensure that personnel are provided with appropriate and suitable protective clothing and equipment and that these are properly used. This includes personal protective clothing, spark-proof safety boots, overalls, high visibility jackets and gloves, as appropriate.
 - xxii) To make records in accordance with Bye-law 15(a) and furnish a copy of same to the Harbour Master on completion of the work
- e) The Explosives Officer may give directions for the purposes of sub paragraph (d)

9) Advance Notification

- a) A person shall not bring explosives into the area controlled by the Port Company without the express prior approval of the Harbour Master or his representative. Such persons shall comply fully with all the provisions of these Bye-laws and with any further instructions given to them by the Harbor Master, his representative or the Explosives Officer in relation to where the explosives may be located, handled, loaded or unloaded
- b) The master of the ship or its agent shall give advance notification of the proposed time of arrival at the designated berth of any ship for the purpose of loading or unloading explosives to the Harbour Master, as soon as is practicable but not later than 48 hours prior to that time. Notification shall be through the Safe Seas Ireland (SSI) notification system and shall include total NEC, Hazard Division and Compatibility Group of the explosives
- c) The Harbour Master shall inform the Master of a ship carrying explosives at what time the ship can be berthed and at what time the unloading of explosive can commence. This will be before the ship enters the Port Facility and if necessary the Harbour Master will inform the ship that it must remain at anchor at the designated point until he gives his permission to enter the Port Facility. No bunkering of a vessel carrying explosives shall take place near the entrance to the Port Facility
- d) The consignor of any explosives which are to enter the area controlled by the Port Company by road or rail shall give advance notification of the expected time of arrival at the Port of any vehicle loaded with explosives to the Harbour Master and request the permission of the Harbour Master, as

soon as is practicable but not later than 48 hours prior to that time.

Notification shall be electronically (email) or in writing and shall include total NEC, Hazard Division and Compatibility Group of the explosives.

- e) The Harbour Master shall give advance notification of the expected time of arrival at the designated berth of any vessel or vehicle for the purpose of loading or unloading explosives to the Garda Síochána Angelsea St Cork as soon as is practicable but not later than 48 hours prior to that time.
- f) The Garda Síochána shall, where necessary, consult with the Harbour Master and Explosives Officer, and inform them of any recommendations and precautions which they consider ought to be taken to protect explosives on the designated berth from loss or theft including whether the explosives can be unloaded or loaded, as the case may be, without a member of the Garda Síochána being present
- g) For explosives arriving by sea the consignee shall nominate a representative who has immediate access to specialist advice in the case of an emergency and shall forward all contact details for this representative to the Harbour Master and the Explosives Officer as soon as is practicable but not later than 48 hours prior to the time of arrival of the explosives.
- h) For explosives arriving by road or rail the consignor shall nominate a representative who has immediate access to specialist advice in the case of an emergency and shall forward all contact details for this representative to the Harbour Master and the Explosives Officer as soon as is practicable but not later than 48 hours prior to the time of arrival of the explosives

10) Duties of the Master of a Ship

- a) The master of a ship at the designated berth shall ensure that –
 - i) All the requirements of the IMDG Code with regard to the carriage of explosives are being complied with
 - ii) a competent person is present on the ship at all times when a magazine, hold, compartment or other place of the ship containing explosives is open,
 - iii) only persons whose duties so require are permitted access to such a magazine, hold, compartment or other place,
 - iv) such magazine, hold, compartment or other place is secured against unauthorised entry at all times,
 - v) such a magazine, hold, compartment or other place is not opened except for the purpose of loading or unloading explosives onto or from the ship or for any other essential purpose.
 - vi) a full inventory of all explosives on board together with stowage location on the vessel is made available to the Explosives Officer
 - vii) packages containing explosives are not opened on board the ship, except in case of necessity
 - viii) a record is kept of explosives loaded or unloaded onto or from the ship, such records to be kept for a period of 10 years and shall be produced on request to an Inspector of Explosives, a member of An Garda Síochána or an Officer of Customs and Excise.
 - ix) the protected area on the ship is indicated by notices in accordance with Bye-law 13 and 'Explosives' and/or 'No Smoking' signs are displayed in a prominent position on the gang way

- x) the vessel shall display Flag B (Red flag) by day and in the hours of darkness the vessel 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 his nominee.
- xi) The vessel is not connected to electric power supplied from the shore unless necessitated for safety or emergency reasons

11) Loading and Unloading Explosives at Designated Berth

- a) Vessels carrying explosives shall only berth at a designated berth and shall not enter a dry dock
- b) Explosives shall not be brought to the designated berth for loading onto a ship unless the ship is prepared and ready for such loading
- c) Explosives shall not be kept at the designated berth for a time longer than is reasonably necessary for loading them onto a ship or vehicle.
- d) Explosives shall be unloaded from a ship berthed at the designated berth as soon as reasonably practicable and without any undue delay. The Harbour Master shall decide when the vessel can berth and when the unloading will commence
- e) Explosives shall not be unloaded from a ship at the designated berth unless they are unloaded onto a vehicle and the vehicle is prepared and ready for such unloading.
- f) Loading or unloading of explosives shall not take place during electrical storms.
- g) Where any such loading or unloading has commenced, it shall proceed with due diligence.

- h) Explosives of Compatibility Group L shall not be loaded or unloaded without the written permission of the Harbour Master
- i) No person shall carry out any hot work (ie use of any drilling, cutting, grinding, welding or burning equipment likely to cause sparks, heat or flame) at, in or near any vessel or vehicle which is loaded with explosives
- j) No person under the influence of alcohol or drugs shall be allowed to engage in any activities involving explosives within the Port Facility area
- k) Persons engaged in the carriage to or from the designated berth or the loading or unloading onto or from a ship of explosives shall act with all reasonable expedition.
- l) Persons using MHE shall ensure that this is safe, appropriate and in good mechanical order and shall handle any explosive or package, pallet or container containing explosives with due care
- m) Persons handling or in charge of explosives at the designated berth shall take reasonable precautions to secure the explosives against loss or theft and shall comply with any directions given to him or her for that purpose by the Explosives Officer or a member of an Garda Síochána.
- n) If the loading or unloading of explosives is interrupted or suspended for any reason, then upon the expiration of 3 hours from the time when the loading or unloading is interrupted or suspended, the Explosives Officer shall consult the Harbour Master for advice
- o) Persons engaged in the carriage to or from the designated berth or the loading or unloading onto or from a ship of explosives or handling explosives shall comply with all instructions given to them by the Master of

- a Ship, the Explosives Officer, the Harbour Master or a member of the Gardai, as the case may be
- p) The driver of a vehicle arriving at or departing from the designated berth for the purpose of loading or unloading explosives shall comply with the directions of the Explosives Officer.
 - q) The driver or other person in charge of any vehicle in which explosives are to be conveyed to or from the designated berth shall ensure that the floor and interior thereof are maintained in a clean condition
 - r) The driver or other person in charge of any vehicle in which explosives are loaded will ensure that it is not parked within 50m of any other vehicle or vessel loaded with explosives
 - s) A person shall not bring an Electro Explosive Device (E..E.D.) onto the designated berth unless he or she has the approval of the Harbour Master and Explosives Officer, and unless it is so constructed and packed as to be safe for carriage, that is to say, safe in a field of 10 watts per square metre for frequencies between 30 megahertz and 790 megahertz and in a field of 100 watts per square metre outside those frequencies. In this Bye-law "E.E.D." means a one-shot explosive or pyrotechnic device caused to function by the application of electrical energy.

12) Deterioration or Loss of Explosives

- a) A person in charge of explosives within the Port Facility who becomes aware of
 - i) a deterioration in the condition of the explosives or
 - ii) damaged packaging or containers such that explosives are escaping from the packaging or containers or

- iii) any other change in relation thereto,
that might significantly increase the risks attendant upon their transportation and handling at the designated berth shall immediately notify the Explosives Officer who in turn shall inform the Harbour Master, a member of the Garda Siochana at the designated berth and the Chief Fire Officer Cork County, if he considers it necessary for safety reasons, of the deterioration or other change.
- b) If there is no Member of the Garda Siochanna present then the Explosives Officer shall immediately report the matter to the member of the Garda Siochana in charge at Angelsea St Cork.
- c) The Explosives Officer shall –
 - i) immediately stop all loading and unloading of explosives at the designated berth,
 - ii) ensure that all persons at the designated berth or at a place within 100 metres of the package or container and not required there for safety purposes, are evacuated from the designated berth or place,
 - iii) collect and repack or dispose of the explosives, in accordance with best current practice,
 - iv) if he considers it necessary to do so, consult with such persons as are immediately available and he considers appropriate,
 - v) make a record of any deficiency in the quantity of recovered explosives,
- d) Where explosives at the designated berth fall into the sea or are lost, or are otherwise missing or unaccounted for,
 - i) The person in charge of the explosives shall forthwith –

- (1) report the occurrence to the Explosives Officer, who shall in turn report the occurrence to the Harbour Master and a member of the Garda Siochanna at the designated berth,
- (2) take such steps subject to the directions of the Harbour Master and Explosives Officer, as are reasonably practicable to recover the explosives,
 - ii) If there is no Member of the Garda Siochanna present then the Explosives Officer shall immediately report the matter to the member of the Garda Siochana in charge at Angelsea St Cork,

13) Operation of the Protected Area

- a) When a ship carrying explosives or to be loaded with explosives at the designated berth docks at the designated berth or where a vehicle carrying explosives is present at the designated berth—
 - i) the Explosives Officer shall indicate, prior to loading or unloading, by means of notices, the protected area in the Port Facility and
 - ii) the master of the ship shall indicate the protected area on the ship.
 - iii) A person shall not smoke or display a naked flame in a protected area.
 - iv) A person shall not bring into a protected area, matches, cigarette lighter, or an unapproved torch
 - v) A person unless authorised to do so by the Explosives Officer shall not enter or bring a vehicle into a protected area.
 - vi) All personnel will be provided with appropriate and suitable protective clothing and equipment and that these shall be properly used. This includes personal protective clothing, spark-proof safety boots, overalls, high visibility jackets and gloves, as appropriate.

- b) During any period in which explosives are being handled on the designated berth or a ship at the designated berth, notices shall be displayed stating that

"This is a Protected Area"

Entry by persons or vehicles into this area is prohibited except for persons and vehicles authorised by the Explosives Officer.

Smoking or any exposed flame in this area, is prohibited. A person shall not bring matches, cigarette lighter, or unapproved flame into this area.

Appropriate Footwear, Clothing and PPE as advised by the Explosives Officer, to be worn by all Personnel

Persons in contravention of this Notice are in breach of Explosives Port of Cork Company Bye-laws 2015 and will be prosecuted.

Signed: Harbour Master."

- c) The Explosives Officer shall ensure that a protected area on the designated berth is free from rubbish, waste or flammable material..

14) Fire Safety

- a) Fire fighting equipment at the designated berth shall be clearly marked and shall be so positioned as to ensure that vehicles or cargo parked or stored on the designated berth do not cover, conceal or impede access to the fire equipment.
- b) Drivers of vehicles on the designated berth shall ensure that the vehicles are equipped with a fire extinguisher of a type and size suitable for extinguishing any fire in the vehicle other than a fire involving explosives or likely to involve explosives.
- c) The Explosives Officer shall ensure that that
 - i) all persons designated to use the Fire Fighting Equipment at the designated Berth are aware of the location of the equipment and method of operation,
 - ii) in the event of a fire at the designated berth, persons not required for fire fighting or safety purposes are evacuated from the designated berth,
- d) Persons at the designated berth shall –
 - i) take all reasonable precautions to prevent fire at the designated berth,
 - ii) in the event of Fire, raise the alarm immediately by informing the Explosives Officer who shall inform the Fire Brigade, the Gardai and the Harbour Master
 - iii) take such immediate measures as are open to the person to fight, control and extinguish any fire at the designated berth, and

- iv) obey any directions of a member of the Fire Brigade in relation to a fire at the designated berth and provide all such assistance in fighting the fire as is reasonable in the particular circumstances.
- e) The Explosives Officer shall organise and supervise any action to be taken by the persons at the designated berth at the request of the Fire Brigade in the event of fire at or in the vicinity of the designated berth or a ship at or in the vicinity of the designated berth.
- f) Without prejudice to the generality of Bye-law 14(a), the Harbour Master shall ensure –
 - i) that adequate and serviceable fire fighting equipment is available at the designated berth during loading/unloading of explosives,
 - ii) that measures and equipment proposed to be employed at the designated berth to prevent, control and extinguish fires are approved by the Chief Fire Officer of Cork County.
 - iii) That an effective emergency action plan is in place to deal with any emergency arising from the transport , handling, loading and unloading of explosives at the wharf and site.

15) Keeping of Records

- a) The Explosives Officer shall keep a record of the explosives handled at the designated berth and shall furnish a copy of same to the Harbour Master.
- b) The record shall include particulars of the type, quantity and condition of such explosives, time and date, name of ship, name of master of ship, identification of vehicle, origin and destination of explosives, and owner of explosives.

- c) Records kept under this Bye-law shall be preserved for not less than 10 years from the end of the year to which they relate and shall be produced on request to an Inspector or a member of An Garda Siochana.

16) Offences and Penalties

- a) The Harbour Master shall be responsible for enforcing these Bye-Laws, and the Explosives Officer shall ensure that the provisions of these Bye-laws are brought to the notice of all persons employed in the loading, unloading or handling of explosives at the designated berth.
- b) A person or body corporate who contravenes a Bye-law is guilty of an offence under these Bye-laws shall be liable;
 - v) on summary conviction - to a fine not exceeding Euro 5,000,
 - vi) on conviction on indictment, to a fine not exceeding Euro 10,000.
- c) Where an offence under these Bye-laws is committed by a body corporate and is proved to have been so committed with the consent or connivance of, or to be attributable to any neglect on the part of, any person who, when the offence was committed was a director, manager, secretary or other officer of the body corporate, or a person purporting to act in any such capacity, that person, as well as the body corporate, shall be guilty of an offence and shall be liable to be proceeded against and punished as if that person was guilty of the first-mentioned offence.
- d) Proceedings in relation to an offence under these bye-laws may be brought and prosecuted by the Minister for Justice and Equality, Port of Cork Company , or the Harbour Master.

FIRST SCHEDULE – The Divisions (Bye-laws 2 & 5)

Hazard Division	Explanation
1.1	Substances and articles which have a mass explosion hazard (A mass explosion is one which affects almost the entire load virtually instantaneously).
1.2	Substances and articles which have a projection hazard but not a mass explosion hazard
1.3	<p>Substances and articles which have a fire hazard and either a minor blast hazard or a minor projection hazard or both, but not a mass explosion hazard.</p> <p>This Division comprises substances and articles:</p> <ul style="list-style-type: none"> (a) which give rise to considerable radiant heat, or (b) which burn one after another, producing minor blast or projection effects or both.
1.4	<p>Substances and articles which present no significant hazard</p> <p>This division comprises substances and articles which present only a small hazard in the event of ignition or initiation during transport. The effects are largely confined to the package and no projection of fragments of appreciable size or range is to be expected. An external fire must not cause virtually instantaneous explosion of almost the entire contents of the package.</p>

1.5	<p>Very insensitive substances which have a mass explosion hazard</p> <p>This division comprises substances which have a mass explosion hazard but are so insensitive that there is very little probability of initiation or of transition from burning to detonation under normal conditions of transport.</p>
1.6	<p>Extreme insensitive articles which do not have a mass explosion hazard</p> <p>This division comprises articles which contain only extremely insensitive detonating substances and which demonstrate a negligible probability of accidental initiation or propagation.</p>

SECOND SCHEDULE

THE GROUPS (Bye-laws 2 & 5)

Definition of compatibility groups of substances and articles

- A Primary explosive substance.

- B Article containing a primary explosive substance and not having two or more effective protective features. Some articles, such as detonators for blasting, detonator assemblies for blasting and primers, cap-type, are included, even though they do not contain primary explosives.

- C Propellant explosive substance or other deflagrating explosive substance or article containing such explosive substance.

- D Secondary detonating explosive substance or black powder or article containing a secondary detonating explosive substance, in each case without means of initiation and without a propelling charge, or article containing a primary explosive substance and having two or more effective protective features.

- E Article containing a secondary detonating explosive substance, without means of initiation, with a propelling charge (other than one containing a flammable liquid or gel or hypergolic liquids).

- F Article containing a secondary detonating explosive substance with its own means of initiation, with a propelling charge (other than one containing a flammable liquid or gel or hypergolic liquids) or without a propelling charge.

- G Pyrotechnic substance, or article containing a pyrotechnic substance, or article containing both an explosive substance and an illuminating, incendiary, tear- or smoke-producing substance (other than a water-activated article or one which contains white phosphorus, phosphides, a pyrophoric substance, a flammable liquid or gel or hypergolic liquids).

- H Article containing both an explosive substance and white phosphorus.

- J Article containing both an explosive substance and a flammable liquid or gel.

- K Article containing both an explosive substance and a toxic chemical agent.

- L Explosive substance or article containing an explosive substance and presenting a special risk (e.g. due to water activation or the presence of hypergolic liquids, phosphides or a pyrophoric substance) necessitating isolation of each type.

- N Articles containing only extremely insensitive detonating substances.

- S Substance or article so packed or designed that any hazardous effects arising from accidental functioning are confined within the package unless the package has been degraded by fire, in which case all blast or projection effects are limited to the extent that they do not significantly hinder or prevent fire-fighting or other emergency response efforts in the immediate vicinity of the package.

NOTE 1: Each substance or article, packed in a specified packaging, may be assigned to one compatibility group only. Since the criterion of compatibility group S is empirical, assignment to this group is necessarily linked to the tests for assignment of a classification code.

NOTE 2: Articles of compatibility groups D and E may be fitted or packed together with their own means of initiation provided that such means have at least two effective protective features designed to prevent an explosion in the event of accidental functioning of the means of initiation. Such packages shall be assigned to compatibility groups D or E.

NOTE 3: Articles of compatibility groups D and E may be packed together with their own means of initiation, which do not have two effective protective features (i.e. means of initiation assigned to compatibility group B), provided that they comply with mixed packing provision MP 21 of Section 4.1.10. Such packages shall be assigned to compatibility groups D or E.

NOTE 4: Articles may be fitted or packed together with their own means of ignition provided that the means of ignition cannot function during normal conditions of carriage.

NOTE 5: Articles of compatibility groups C, D and E may be packed together. Such packages shall be assigned to compatibility group E.

Annex 1A to Explosives (Port of Cork Company) Bye-Laws, 2016

Tivoli Dock Estate

SPECIAL CONDITIONS APPLYING TO

DESIGNATED BERTHS AT Tivoli Dock Estate, Cork

1. **Explosive Limits – Centre Point of Container Berth, Tivoli Dock Estate, Cork**

Designated Berth	Maximum limit of explosives permitted (kg)			
	Hazard Division			
	1.1 or 1.5	1.2 or 1.6	1.3	1.4
Container Berth	700	700	6000	Unlimited

2. **Limiting Distances - Port of Cork Company**
3. The minimum limiting distances specified in the Table of Limiting Distances below will be kept from the designated berth to the facilities and vulnerable sites listed
4. Notwithstanding the fact that the Terminal Building is outside the minimum limiting distance it should remain unoccupied during the loading or unloading of explosives because of it's vulnerable construction
5. Any facility or building within the limiting distances specified at Table of Limiting Distances below must be vacated during loading, unloading or handling of explosives otherwise the explosives limits in the Bye-laws are invalid
6. Construction of new facilities or buildings within the distances mentioned shall invalidate the explosive limits in the Bye-laws.

7. No ship, other than the explosives ship, may be present at the designated berth during loading, unloading or handling of explosives.
8. No fertiliser, oxidiser or flammable material may be loaded, unloaded at the Tivoli Port Facility while a ship containing explosives is at the berth.
9. No passenger ship may be berthed at the Tivoli Port Facility while a ship containing explosives is at the berth.

Table of Limiting Distances

	Designated Berth – Container Berth Tivoli Dock		Notes
	Explosive Limit (kg) of HD 1.1,	700	
	Facility	Min Distance (m) to be maintained from Designated Berth	
1	Schools, hospitals, institutions, places of worship, leisure facilities or places where public congregate	120	
2	Buildings of vulnerable construction	179	3 Storeys or more in height with extensive glass/light cladding
3	Residential property (normal density)	90	Conventional brick/block houses
4	Residential property (high density)	120	e.g. Apartment Blocks/Terraces
5	Public Houses	90	
6	Factories Dock	90	Using dock shipping regularly (<50 pers)
7	Factories Non Dock	120	
8	Refineries (other than storage)	120	
9	Petrol/Oil/Gas Bulk Storage	45	If fully banded to 110% volume
10	Dock canteens/workshops	90	
11	Dock offices, customs offices etc	90	
12	Passenger Terminal, passenger ships embarking/ disembarking	90	
13	Open areas over which passengers pass during transit to/from ship	45	
14	Tankers for Petrol/LPG/LNG	90	Unless empty/inerted
15	Tankers for Petrol/LPG/LNG discharging/loading	120	Unless empty/inerted
16	Ships - Non dangerous	60	Resident pers on board
17	Bulk Carriers - dangerous goods	100	
18	Lock gates vital to port	45	
19	Transit Sheds - dangerous goods	60	
20	Transit Sheds - Highly Flam goods	90	
21	Transit Sheds - Inert Goods	90	Manned only, otherwise N.A.
22	Roads Access and "B" secondary type	45	(1/5000 veh per day)
23	Roads "A" main type	60	(>5000 veh per day)
24	Rail mainline	45	Passenger trains
25	Pers in open	60	Not connected with Expl

Annex 1B to Explosives (Port of Cork Company) Bye-Laws, 2016

Tivoli Dock Estate – Facility Unoccupied

SPECIAL CONDITIONS APPLYING TO

DESIGNATED BERTHS AT Tivoli Dock Estate, Cork

1. Explosive Limits – Centre Point of Container Berth, Tivoli Dock Estate, Cork

Designated Berth	Maximum limit of explosives permitted (kg)			
	Hazard Division			
	1.1 or 1.5	1.2 or 1.6	1.3	1.4
Container Berth with Port Facility Unoccupied	3000	3800	85000	Unlimited

2. Limiting Distances - Port of Cork Company

3. All facilities within the limits of Tivoli Dock Estate, except where necessary for port security, including those numbered from 1-13 on the map attached to these byelaws signed by the Government Inspector of Explosives must be vacated and unoccupied whilst explosives are being handled at this Container Berth
4. The minimum limiting distances specified in the Table of Limiting Distances below will be kept from the designated berth to the facilities and vulnerable sites listed
5. Any facility or building within the limiting distances specified at Table of Limiting Distances below must be vacated during loading, unloading or handling of explosives otherwise the explosives limits in the Bye-laws are invalid

6. Construction of new facilities or buildings within the distances mentioned shall invalidate the explosive limits in the Bye-laws.
7. No ship, other than the explosives ship, may be present at the designated berth during loading, unloading or handling of explosives.
8. No fertiliser, oxidiser or flammable material may be loaded, unloaded at the Tivoli Port Facility while a ship containing explosives is at the berth.
9. No passenger ship may be berthed at the Tivoli Port Facility while a ship containing explosives is at the berth.

Table of Limiting Distances

	Designated Berth – Container Berth Tivoli Dock & Facility Unoccupied		Notes
	Explosive Limit (kg) of HD 1.1	3000	
	Facility	Min Distance (m) to be maintained from Designated Berth	
1	Schools, hospitals, institutions, places of worship, leisure facilities or places where public congregate	286	
2	Buildings of vulnerable construction	428	3 Storeys or more in height with extensive glass/light cladding
3	Residential property (normal density)	214	Conventional brick/block houses
4	Residential property (high density)	286	e.g. Apartment Blocks/Terraces
5	Public Houses	214	
6	Factories Dock	214	Using dock shipping regularly (<50 pers)
7	Factories Non Dock	286	
8	Refineries (other than storage)	286	
9	Petrol/Oil/Gas Bulk Storage	107	If fully banded to 110% volume
10	Dock canteens/workshops	214	
11	Dock offices, customs offices etc	214	
12	Passenger Terminal, passenger ships embarking/ disembarking	214	
13	Open areas over which passengers pass during transit to/from ship	107	
14	Tankers for Petrol/LPG/LNG	214	Unless empty/inerted
15	Tankers for Petrol/LPG/LNG discharging/loading	286	Unless empty/inerted
16	Ships - Non dangerous	143	Resident pers on board
17	Bulk Carriers - dangerous goods	100	
18	Lock gates vital to port	107	
19	Transit Sheds - dangerous goods	143	
20	Transit Sheds - Highly Flam goods	214	
21	Transit Sheds - Inert Goods	214	Manned only, otherwise N.A.
22	Roads Access and "B" secondary type	107	(1/5000 veh per day)
23	Roads "A" main type	143	(>5000 veh per day)
24	Rail mainline	107	Passenger trains
25	Pers in open	143	Not connected with Expl

Annex 2A to Explosives (Port of Cork Company) Bye-Laws, 2016

Ringaskiddy Deepwater Facility

SPECIAL CONDITIONS APPLYING TO

DESIGNATED BERTHS AT Ringaskiddy Deepwater Facility Cork

1. **Explosive Limits – Marker 11 @ Container Berth, Ringaskiddy Deepwater Facility, Cork**

Designated Berth	Maximum limit of explosives permitted (kg)			
	Hazard Division			
	1.1 or 1.5	1.2 or 1.6	1.3	1.4
Container Berth	350	350	1600	Unlimited

2. **Limiting Distances - Port of Cork Company**
3. The minimum limiting distances specified in the Table of Limiting Distances below will be kept from the designated berth to the facilities and vulnerable sites listed
4. Any facility or building within the limiting distances specified at Table of Limiting Distances below must be vacated during loading, unloading or handling of explosives otherwise the explosives limits in the Bye-laws are invalid
5. Construction of new facilities or buildings within the distances mentioned shall invalidate the explosive limits in the Bye-laws.
6. No ship, other than the explosives ship, may be present at the designated berth during loading, unloading or handling of explosives.
7. No fertiliser, oxidiser or flammable material may be loaded, unloaded in the Ringaskiddy Port Facility while a ship containing explosives is at the berth.

8. No passenger ship may be berthed at the Ringaskiddy Port Facility and the Ferry Terminal shall be unoccupied while a ship containing explosives is at the berth.

Table of Limiting Distances

	Designated Berth – Container Berth Ringaskiddy		Notes
	Explosive Limit (kg) of HD 1.1,	350	
	Facility	Min Distance (m) to be maintained from Designated Berth	
1	Schools, hospitals, institutions, places of worship, leisure facilities or places where public congregate	76	
2	Buildings of vulnerable construction	114	3 Storeys or more in height with extensive glass/light cladding
3	Residential property (normal density)	57	Conventional brick/block houses
4	Residential property (high density)	76	e.g. Apartment Blocks/Terraces
5	Public Houses	57	
6	Factories Dock	57	Using dock shipping regularly (<50 pers)
7	Factories Non Dock	76	
8	Refineries (other than storage)	76	
9	Petrol/Oil/Gas Bulk Storage	29	If fully banded to 110% volume
10	Dock canteens/workshops	57	
11	Dock offices, customs offices etc	57	
12	Passenger Terminal, passenger ships embarking/ disembarking	57	
13	Open areas over which passengers pass during transit to/from ship	29	
14	Tankers for Petrol/LPG/LNG	57	Unless empty/inerted
15	Tankers for Petrol/LPG/LNG discharging/loading	76	Unless empty/inerted
16	Ships - Non dangerous	38	Resident pers on board
17	Bulk Carriers - dangerous goods		
18	Lock gates vital to port	29	
19	Transit Sheds - dangerous goods	38	
20	Transit Sheds - Highly Flam goods	57	
21	Transit Sheds - Inert Goods	57	Manned only, otherwise N.A.
22	Roads Access and "B" secondary type	29	(1/5000 veh per day)
23	Roads "A" main type	38	(>5000 veh per day)
24	Rail mainline	29	Passenger trains
25	Pers in open	38	Not connected with Expl

Annex 2B to Explosives (Port of Cork Company) Bye-Laws, 2016

Ringaskiddy Deepwater Facility – Facility Unoccupied

SPECIAL CONDITIONS APPLYING TO

DESIGNATED BERTHS AT Ringaskiddy Deepwater Port Facility Cork

1. Explosive Limits – Marker 11 @ Container Berth, Ringaskiddy Deepwater Facility, Cork

Designated Berth	Maximum limit of explosives permitted (kg)			
	Hazard Division			
	1.1 or 1.5	1.2 or 1.6	1.3	1.4
Container Berth with Port Facility Unoccupied	2500	2500	65000	Unlimited

2. Limiting Distances - Port of Cork Company

3. All facilities within the limits of Ringaskiddy Deepwater Port Facility, except where necessary for port security, including those numbered 4, 7-14 and 22-24 on the map attached to these byelaws signed by the Government Inspector of Explosives must be vacated and unoccupied whilst explosives are being handled at this Container Berth
4. The minimum limiting distances specified in the Table of Limiting Distances below will be kept from the designated berth to the facilities and vulnerable sites listed
5. Any facility or building within the limiting distances specified at Table of Limiting Distances below must be vacated during loading, unloading or handling of explosives otherwise the explosives limits in the Bye-laws are invalid

6. Construction of new facilities or buildings within the distances mentioned shall invalidate the explosive limits in the Bye-laws.
7. No ship, other than the explosives ship, may be present at the designated berth during loading, unloading or handling of explosives.
8. No fertiliser, oxidiser or flammable material may be loaded, unloaded in the Ringaskiddy Port Facility while a ship containing explosives is at the berth.
9. No passenger ship may be berthed at the Ringaskiddy Port Facility and the Ferry Terminal shall be unoccupied while a ship containing explosives is at the berth.

Table of Limiting Distances

	Designated Berth – Container Berth Ringaskiddy & Facility Unoccupied		Notes
	Explosive Limit (kg) of HD 1.1	2500	
	Facility	Min Distance (m) to be maintained from Designated Berth	
1	Schools, hospitals, institutions, places of worship, leisure facilities or places where public congregate	260	
2	Buildings of vulnerable construction	389	3 Storeys or more in height with extensive glass/light cladding
3	Residential property (normal density)	195	Conventional brick/block houses
4	Residential property (high density)	260	e.g. Apartment Blocks/Terraces
5	Public Houses	195	
6	Factories Dock	195	Using dock shipping regularly (<50 pers)
7	Factories Non Dock	260	
8	Refineries (other than storage)	260	
9	Petrol/Oil/Gas Bulk Storage	98	If fully banded to 110% volume
10	Dock canteens/workshops	195	
11	Dock offices, customs offices etc	195	
12	Passenger Terminal, passenger ships embarking/ disembarking	195	
13	Open areas over which passengers pass during transit to/from ship	98	
14	Tankers for Petrol/LPG/LNG	195	Unless empty/inerted
15	Tankers for Petrol/LPG/LNG discharging/loading	260	Unless empty/inerted
16	Ships - Non dangerous	130	Resident pers on board
17	Bulk Carriers - dangerous goods		
18	Lock gates vital to port	98	
19	Transit Sheds - dangerous goods	130	
20	Transit Sheds - Highly Flam goods	195	
21	Transit Sheds - Inert Goods	195	Manned only, otherwise N.A.
22	Roads Access and "B" secondary type	98	(1/5000 veh per day)
23	Roads "A" main type	130	(>5000 veh per day)
24	Rail mainline	98	Passenger trains
25	Pers in open	130	Not connected with Expl

Annex 4 – HSE (UK) Information Sheet –



Explosives Aspects of Port Emergency Plans

Docks Information Sheet No 3 (Revised)

Introduction

This information sheet is one of a series prepared by HSE's Docks National Interest Group. It supplements the general guidance on emergency arrangements in the Approved Code of Practice and Guide to the Dangerous Substances in Harbour Areas Regulations 1987 (DSHAR); see 'Further information'. It is aimed at harbour authorities who have to prepare emergency plans covering the handling of explosives at places licensed under DSHAR. However, it may also assist berth operators, the emergency services and others who could be involved with such emergencies.

Types of explosive

Explosives are allocated to Class 1 under the United Nations classification scheme for Class 1 dangerous goods. Class 1 is subdivided into six divisions:

- Division 1.1- substances and articles which have a mass explosion hazard;
- Division 1.2- substances and articles which have a projection hazard but not a mass explosion hazard;
- Division 1.3- substances and articles which have a fire hazard and either a minor blast hazard or a minor projection hazard or both, but not a mass explosion hazard;
- Division 1.4 - substances and articles which present no significant hazard;
- Division 1.5- very insensitive substances which have a mass explosion hazard. For emergency planning purposes they should be treated as Division 1.1 explosives; and
- Division 1.6 - extremely insensitive articles which do not have a mass explosion hazard.

At the time of this information sheet going to print, no explosives have been classified as Division 1.6 in the UK. Should a need to handle explosives of Division 1.6 arise, further advice should be sought from HSE.

Explosives incidents

The emergency plan should cover all foreseeable incidents identified from the risk assessment required by the Management of Health and Safety at Work Regulations 1992. Incidents involving explosives are likely to fall into one of two categories:

- those where the explosives initiate without warning, eg when a load is dropped from a considerable height; or

- Those where the explosives initiate after becoming involved in another event, such as an adjacent fire.

Emergency arrangements

If an explosion occurs without warning, there is little that can be done to prevent injuries. The emergency plan needs to concentrate on the safe rescue of casualties, the evacuation of the uninjured and on any action which will prevent the incident spreading to other explosives, Class 1 dangerous goods or property. The sudden nature of such incidents underlines the importance of only handling explosives at the places designated in the explosives licence, keeping to the limits specified and minimising the number of people involved.

If explosives are not imminently threatened by another event, it may be possible to prevent them becoming involved, eg by spraying them with water. However, if they are threatened, or have already become involved, the action required will depend on the types and quantities of explosives present. You must obtain this information before explosives are allowed into the harbour or harbour area. If there is any doubt about the type of explosives they should be treated as Division 1.1.

Division 1.1 and 1.5 explosives

The main hazard from Division 1.1 and 1.5 explosives is an explosion affecting virtually the entire load almost instantaneously. The resulting blast will shatter anything close by and severely damage buildings in the surrounding area. The flash and firebrands thrown out may start secondary fires. Apart from those at most risk close to the explosion, people will generally be better off in the open and not in buildings or under structures which might collapse on them.

With these types of explosives, rapid evacuation is the primary course of action. The relevant schedule to the explosives licence can be used as a guide to the minimum evacuation distance offering protection. Based on the maximum quantity of explosives liable to be present, everyone should be evacuated to at least the distance shown in the column headed 'Distance to other explosives or persons in the open'. Remember that this distance is the **absolute minimum**.

If time allows, evacuation should continue to as far away as practicable or to the safeguarding distance SD2 given in the schedule. Buildings need to be cleared of people to at least the distance shown in the column headed 'Distance to a passenger vessel' and, if possible, the safeguarding distance SD2. As projectiles are a possibility, assembly points should be on the far sides of buildings to shield people from any explosion. However, the assembly point should not be immediately outside a building because of the risk of flying glass and other debris.

Division 1.2 explosives

The main hazard from Division 1.2 explosives is missiles; some fast, some lobbed and including firebrands, possibly whole or part sub-munitions, packaging etc. Some may explode on impact. The fragment throw will not necessarily depend on the quantity of explosives involved. There could be secondary fires.

Incidents involving Division 1.2 explosives are characterised by sporadic explosions of individual articles over a prolonged period, possibly several hours. The best protection from this type of explosive is shelter, but it is essential that people stay well clear of windows. People in the open should be evacuated as far as possible, at least 400 m and more if possible. As a guide, the limit of fragment throw may be 1250 m from 5 tonnes (net explosives quantity) and 2000 m from 16 tonnes.

Division 1.3 and 1.6 explosives

The main hazard from Division 1.3 and 1.6 explosives is intense radiant heat. The explosives are liable to burst into flames, probably violently, without warning. There could be flying firebrands, as well as flame jetting. The best protection is a combination of distance and shelter. If it is not possible to evacuate people to the distance shown in the column headed 'Distance to other explosives or persons in the open' for Division 1.3 explosives in the relevant licence schedule, they should be advised to seek shelter behind buildings wherever possible.

Division 1.4 explosives

Division 1.4 explosives, if initiated, give rise to a serious, but localised fire. The normal emergency procedures for fires should be adequate for this type of incident.

Evacuation

Emergency plans need to specify when and how evacuation is organised. They should consider any particularly vulnerable populations nearby, such as schools, hospitals and accommodation for the elderly and infirm. Staged evacuation may be necessary, but where this is likely to be slow or impracticable, alternative measures may be needed. For instance, if a hospital cannot be evacuated, it may be necessary to issue advice to close all curtains and blinds, and to move patients away from windows.

Access

It is essential to maintain adequate means of escape and access for emergency services whenever explosives are present. While the most likely site of an incident is a licensed berth, an accident could occur to a vehicle, train or vessel going to or from the berth. The emergency plan needs to cover all such foreseeable incidents.

Emergency information

If an incident occurs the emergency plan must be implemented quickly and the emergency services informed of all hazards without delay. The berth operator needs to notify the master of an explosives ship of the emergency arrangements at the berth as soon as is practicable after the ship has berthed. The master must be given written details of the signals to be used in an emergency and how to call the emergency services. Arrangements may be needed to cope with language difficulties.

Further information

Additional advice and information on the explosives aspects of this guidance may be obtained from HSE's Explosives Inspectorate, St Anne's House, Stanley Precinct, Bootle L20 3RA, telephone 0151 951 4741.

Further information on the other aspects of the emergency plans required by DSHAR is given in *Dangerous Substances in Harbour Areas. Dangerous Substances in Harbour Areas Regulations 1987. Approved Code of Practice COP18* HSE Books 1987 ISBN 0 11 883857 1 and *Guide to the Dangerous Substances in Harbour Areas Regulations 1987* HSR27 HSE Books 1988 ISBN 0 11 883991 8.

HSE priced and free publications are available by mail order from HSE Books, PO Box 1999, Sudbury, Suffolk CO10 6FS. Tel: 01787 881165 Fax: 01787 313995.

HSE priced publications are also available from good booksellers.

For other enquiries ring HSE's InfoLine Tel: 0541 545500, or write to HSE's Information Centre, Broad Lane, Sheffield S3 7HQ.

HSE home page on the World Wide Web:
<http://www.open.gov.uk/hse/hsehome.htm>

This leaflet contains notes on good practice which are not compulsory but which you may find helpful in considering what you need to do.

This publication may be freely reproduced, except for advertising, endorsement or commercial purposes. Please acknowledge the source as HSE. The information is current at 3/98.

Signed on behalf of Port of Cork
Company:

Date _____

The Minister for Justice and Equality
hereby sanctions these Bye-laws.

GIVEN under my Official Seal,

this _____ day

of _____, 2016.

Frances Fitzgerald, T.D

Minister for Justice and Equality

CORK HARBOUR

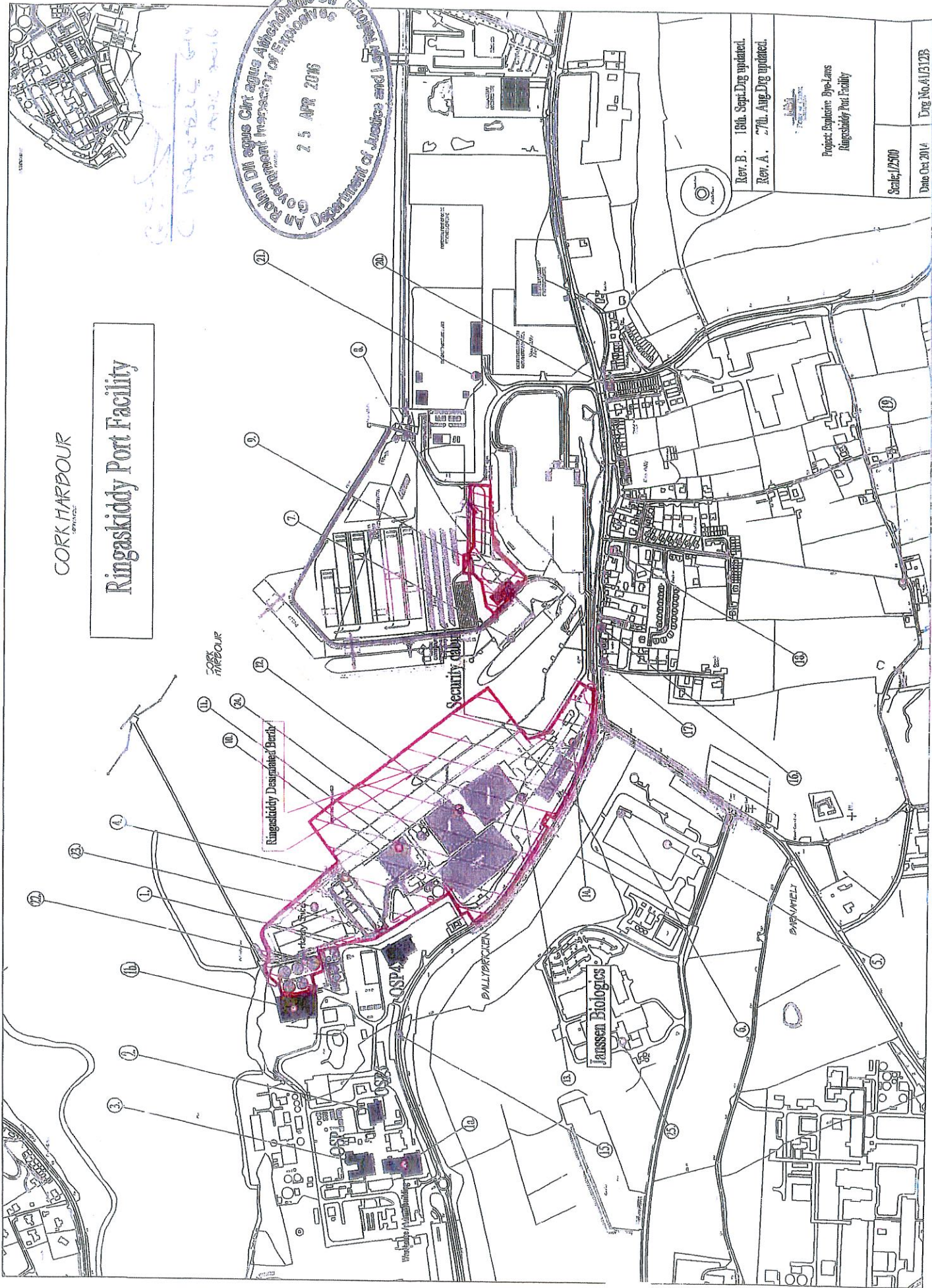
Ringaskiddy Port Facility

25 APR 2016
An Roinn Dlí agus Cúirt agus Aithechtaíocht Dlí
Government Inspector of Explosives
Department of Justice and Equality

Ringaskiddy Disposal Site

Security Wall

Janssen Biologics



Rev. B. 19th. Sept. Dig updated.
Rev. A. 27th. Aug. Dig updated.

Project Engineer: Dye-Lane
Ringaskiddy Port Facility

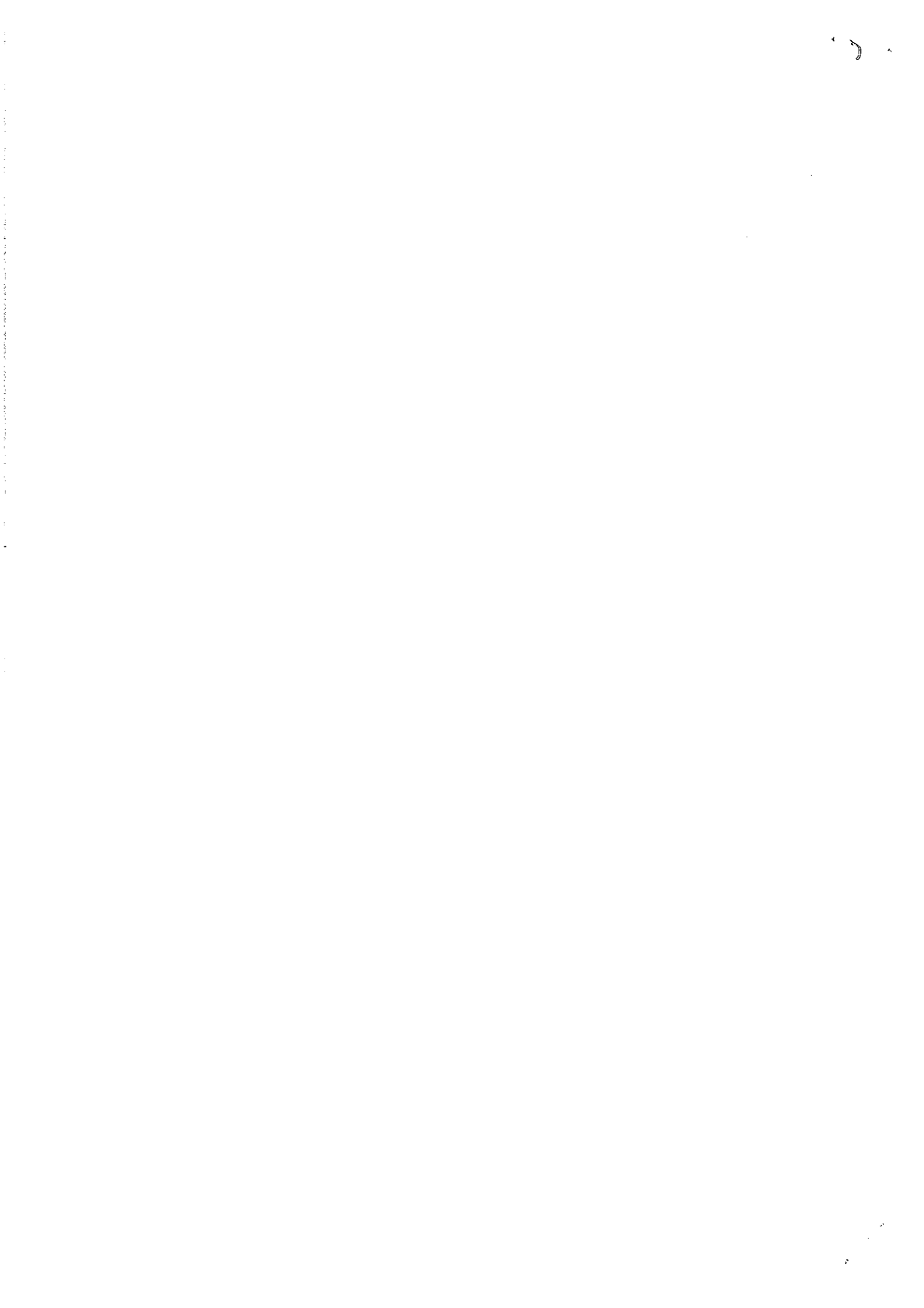
Scale: 1/2500
Date: Oct 2014
Dig No: A1/1312B

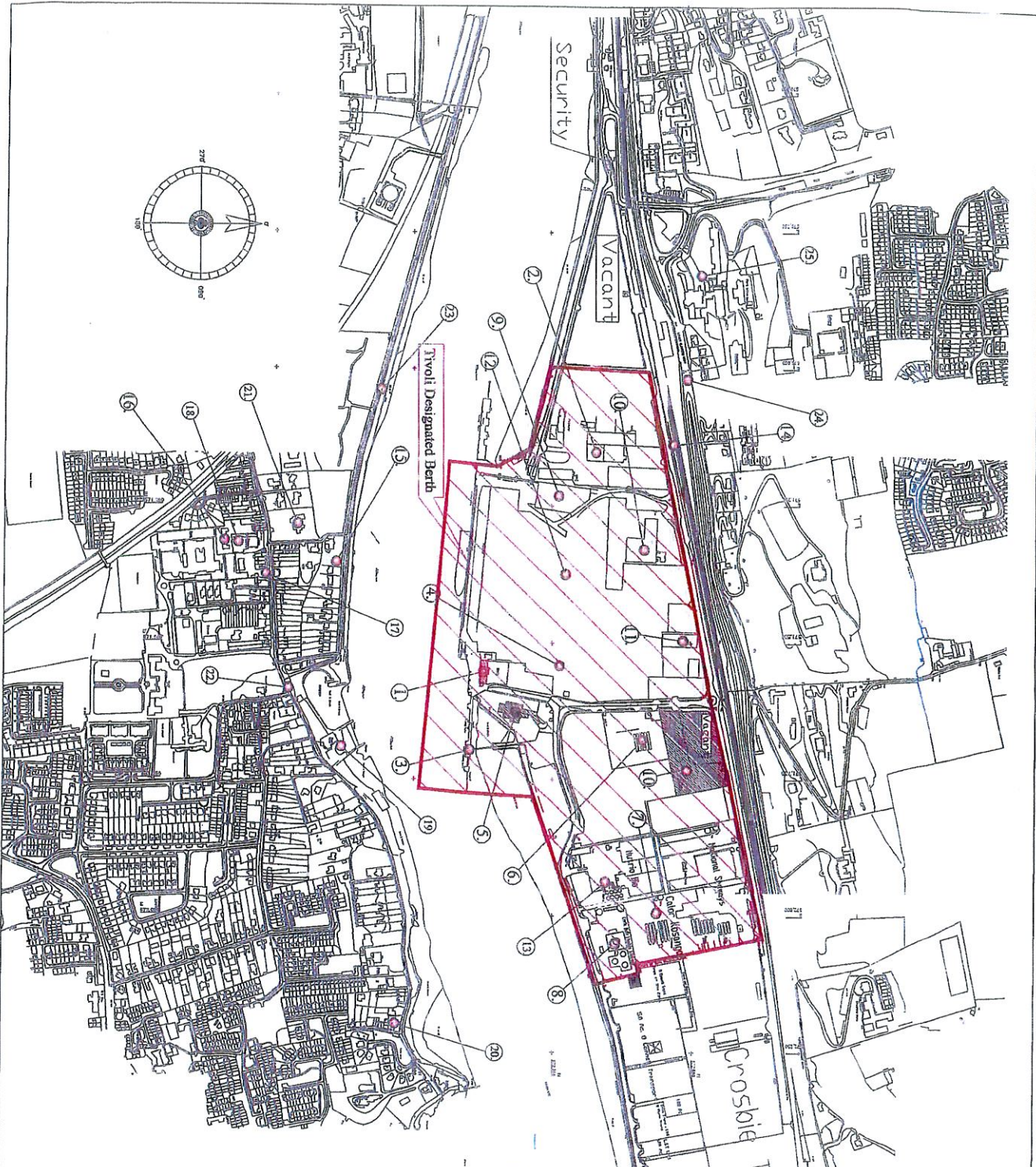


PORT SURVEY

PORT: CORK BERTH – RINGASKIDDY BASIN AREA

Map Ref.	Exposed Site
1.	Pfizer Factory OSP 4 Offices
1A.	Admin Building
1B.	Contractors Compound
2.	OSP 3
3.	Pfizer Factory OSP 1
4.	Port Office at Container Compound
5.	Buckeye Factory Production (gone)
6.	Buckeye Factory Offices/Canteen
7.	Pax Ship CL at Ro-Ro Terminal
8.	Pax Terminal Building
9.	Pax Terminal Car Waiting Park
10.	Premier Molasses Tanks and Office
11.	Wood concepts
12.	Moyglare Animal Feed Office
13.	Halls Animal Feed Office
14.	Workshop/canteen
15.	Main Road
16.	Pub Nearest
17.	Houses Villiage Nearest
18.	Community Centre
19.	Primary School Min Est Dist
20.	Church Village
21.	Euromed Site Extn
22.	South Coast Terminal
23.	Arkady Feeds
24.	Irish Cement
25.	Janssen Biologics





An Roinn Dlí agus Cúir agus Aitheandúcháin
 Department of Justice and Law Reform
 Government Inspector of Explosives
 25 APR 2016

R. J. ...
 C. ...
 05 APR 2016

Rev. B.	18th. Sept. Drg updated.
Rev. A.	27th. Aug. Drg updated.
Project: Explosive Bye-Laws Tivoli Port Facility	
Scale:	1/2500
Date:	Oct 2014
Dwg No:	41/313B

PORT SURVEY

PORT: CORK **BERTH:** Tivoli Docks

Map Ref.	Exposed Site
1.	Terminal Building (offices 09.00 – 17.30hrs.)
2.	Mintech office (09.00 – 17.00hrs.)
3.	Oil – Gas discharge wharf
4.	Portacabin Office at Container Compound
5.	Maintenance base - canteen
6.	Flogas tank compound
7.	Calor gas Compound
8.	Chemical Bulk Storage
9.	Concentrate lead & Zinc store
10.	Vacant Store
11.	HSW salt storage
12.	Container Compound
13.	IAWS / Nutribio
14.	Rail line – Cork – Cobh – Midleton – Cork
15.	Nearest occupied houses - Blackrock
16.	Nearest school - Blackrock
17.	Nearest pub - Blackrock
18.	Nearest church - Blackrock
19.	Cork Boat Club - Blackrock
20.	Nursing Home - Blackrock
21.	Dundannion House – Blackrock (Unoccupied)
22.	Blackrock village
23.	Road – Class B (South Bank)
24.	Road – N8
25.	Silversprings Hotel

