

General Guidance Notes for the Carriage of Explosives by Ships

1. With effective from 1 January 2004, the carriage of explosives by ships shall be conducted in accordance with the mandatory provisions of *the 2002 Edition of the International Maritime Dangerous Goods Code (IMDG Code)*, which includes *the Amendment 31-02* adopted by IMO resolution MSC.122 (75), published by the International Maritime Organization (IMO).

2. Amongst others, all concerned parties shall pay special attention to the following provisions of the IMDG Code which relate to the carriage of explosives at sea:-

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| 2.1 | chapter 2.1 | Explosives – Introductory notes, definitions and general provisions, compatibility groups and classification codes; |
| 2.2 | chapter 4.1, section 4.1.5 | special packing provisions for goods of class 1; |
| 2.3 | chapter 7.1, section 7.1.7 | stowage and handling of goods of class 1; |
| 2.4 | chapter 7.1, section 7.1.7.4.7 | electric equipment and cables; |
| 2.5 | chapter 7.1, Appendix 3 | electrical standards ; |
| 2.6 | chapter 7.2, section 7.2.7 | segregation of goods of class 1; |
| 2.7 | chapter 7.3, section 7.3.6 | special fire precautions for class 1; |
| 2.8 | chapter 7.4, section 7.4.6 | transport of dangerous good of class 1 in cargo transport units; |
| 2.9 | chapter 7.6, section 7.6.8 | transport of goods of class 1 in shipborne barges; |
| 2.10 | The Supplement Part – Emergency response procedures (EmS Guide) regarding class 1 goods; | |
| 2.11 | The Supplement Part – Reporting procedures. | |

3. To supplement the provisions of the IMDG Code, following additional guidance notes for the carriage of explosives by ships are provided:-

3.1 Ventilator Openings

Ventilators leading to compartments in which goods of class 1 are to be loaded should be protected by effective wire mesh guards fitted over the inlet openings to ensure that sources of ignition from the funnel or elsewhere cannot enter the space.

3.2 Fire Protection

3.2.1 The alternative arrangements described in Appendix 2 of chapter 7.1 (Stowage) of the IMDG Code will generally be agreed by the Marine Department for ships other than those to which Merchant shipping (Safety) (Fire Protection) (Ships Built On or After 1 September 1984) Regulations apply.

3.2.2 Ships under 500 tons gross built after 1 September 1984, however, shall comply with the additional safety measures specifies in paragraph 4 of Appendix 2 of chapter 7.1 of the IMDG Code even when the goods of class 1 are stowed 9 metres away from an “A-0” bulkhead.

3.2.3 The diagram at Appendix to this Annex illustrates a suggested method of construction for the temporary bulkhead mentioned in paragraph 3.2 of Appendix 2 of chapter 7.1 of the IMDG Code.

3.3 Lifting Freight Containers Loaded with Goods of Class 1 (Except Division 1.4)

Shipboard loading and unloading of freight containers packed with goods of class 1 needs special care and the precautions detailed in the *Recommendations on the Safe Transport of Dangerous Cargoes and related Activities in Port Areas*, which is published by the International Maritime Organization (IMO), should be observed.

3.4 Types of Lifting Gear

3.4.1 The following are considered acceptable types of gears for lifting freight containers containing goods of Class 1 :

- .1 a specialized container crane at a container berth;
- .2 a shipboard crane or derrick crane operated by one person;
- .3 a gantry crane ashore or on board;
- .4 a conventional dock crane;
- .5 a floating crane.

3.4.2 A union purchase rig or a tandem lift should **NOT** be used.

3.4.3 Because of the design of certain vessels additional care should be exercised when loading or discharging a vessel other than a cellular container ship.

3.4.4 The lifting of a freight container should be from the top corner castings by means of :

- .1 a spreader frame fitted with four twist-locks, actuated by the crane or gantry operator or by pendant control whereby the twist-lock can be locked in the lifting position; or
- .2 a spreader frame fitted with four twist-locks, each of which is engaged manually and has a collar which, when the twist-lock is entered and turned, drops into the corner aperture and locks the twist lock in position; or
- .3 a spreader fitted with shackles which are suitable for use with the container corner fittings.

3.5 Special Checks on Lifting Arrangements

Because of the special hazards involved in the lifting of goods in Class 1 Division 1.1, additional checks of lifting arrangements should be made in accordance with Sections 3.6 and 3.7 below. The following definitions are used :

3.5.1 "authorized supervisor" means a person authorized by the employer, the master of the ship, or a responsible person to supervise the lifting operation and possessing the necessary technical knowledge and experience.

3.5.2 "competent operator" means a person possessing the knowledge and experience required for operating the lifting appliance in the lifting operation.

3.6 Inspection of the Lifting Gear

3.6.1 The safe working load of the lifting appliance should be at least 5 tonnes, or 25 per cent (whichever figure is lower), in excess of the declared gross weight of the container.

3.6.2 The authorized supervisor and the competent operator should examine the records for the lifting machinery and gear to ensure that thorough examinations have been carried out.

3.6.3 Before lifting freight containers loaded with goods of Division 1.1, the authorized person and the competent person should together carry out further checks to ensure that :

- .1 all controls, signal lights and indicators are operating correctly and the brakes are properly adjusted;
- .2 all moving parts of the lifting gear such as sheaves and wire ropes are in good condition and running smoothly;
- .3 all static parts of the system such as shackles, pins and anchorage points are in good condition and properly secured;
- .4 the spreader frame and the four twist-locks are in good condition and the interlocks are effective.

3.7 The Lifting Operation

3.7.1 The authorized supervisor should ensure that all four twist-locks are fully engaged and/or all shackle attachments properly secured before the commencement of each lift.

3.7.2 The container should be lifted to such a position as to enable the authorized supervisor to check the base of the container and each corner fitting attachment.

3.7.3 The operation should be carried out with the minimum acceleration or deceleration.

3.7.4 The operation should not take place in adverse conditions, e.g. in poor visibility (unless adequate illumination is provided) or in high winds.

3.7.5 Other lifting operations should not take place simultaneously at the same hatch or at adjacent hatches.

3.8 Anchorage

The following additional conditions should be met if it is necessary to lift freight containers at an anchorage:

- 3.8.1 the vessel should be anchored in a sheltered position;
- 3.8.2 the conditions should be such that an adequate lee can be provided for the smaller vessel; and
- 3.8.3 the containers should not exceed twenty feet in length.

APPENDIX TO ANNEX

DETAILS OF THE CONSTRUCTION OF TEMPORARY BULKHEADS

This diagram illustrates the suggested method of attachment of A30 material to a self-supported wooden bulkhead.

