



APM TERMINALS

**Transport, Handling and
Storage of Dangerous Goods
Guidelines for All Users May**

2021

Issue 1

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1. INTRODUCTION

1.1 APM Terminals Apapa

APM Terminals Apapa (APMT) has a responsibility under Apapa legislation to control the conditions under which Dangerous Goods are transported, handled or stored in its ports.

1.2 Purpose

These Transport, Handling and Storage of Dangerous Goods: Guidelines for Port Users ("APMT Dangerous Goods Guidelines") have been prepared to assist port users implement the requirements of the legislation relating to Dangerous Goods applicable to APMT. They outline the relevant criteria for Dangerous Goods cargoes either as break-bulk or in freight containers and covers import, export, transshipment and dangerous goods in transit. However, these Guidelines are not intended to be a complete or comprehensive review of all statutory requirements relating to the handling of Dangerous Goods or other hazardous materials in an APMT facility. It is the responsibility of the individual port user to ensure compliance with applicable law as it may apply to its activities.

Port users should note these APMT Dangerous Goods Guidelines constitute part of the APMT facility Regulatory framework. Failure to comply may result in enforcement action by APMT under its Port Management Byelaws.

1.3 Legislation

The United Nations' Model Recommendations for the Transport of Dangerous Goods (the UN Model Regulations) specifies the product testing criteria and associated classification, the packaging specifications and the labelling / marking specifications if transporting Dangerous Goods.

The International Maritime Dangerous Goods (IMDG) Code, published by the International Maritime Organization (IMO), specifies the requirements for transporting Dangerous Goods by sea. Recent amendments to the IMDG Code have extended its scope and application to include port operations, notably in relation to training. In addition, the IMO has published recommendations and Guidelines to facilitate IMDG Code compliance by ports, notably MSC Circular MSC.1/Circ.1216.

The essential requirements of the UN Model Regulations and the IMDG Code are fully harmonized. The variation lies in the need to address, through the IMDG Code, the issues that arise through transporting Dangerous Goods by sea as opposed to land, for example the IMDG Code requires additional labelling on Dangerous Goods entering a port

area to reflect environmental impact whereas this is not specifically required by the UN Model Regulations.

Reference should also be made to the Apapa Environment Health and Safety Management System (EHSMS) Code of Practice 1.0 – Hazardous Materials.

1.4 Definitions

1.4.1 Dangerous Cargoes

The definition of 'Dangerous Cargoes' for the purposes of shipping is broader than that used for land transport. The formal definition of Dangerous Cargoes includes:

- oils covered by Annex I of the International Convention for the Prevention of Pollution from ships (MARPOL);
- gases covered by the IMO Code for the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk;
- noxious liquid substances or chemicals, including wastes, covered by the IMO Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk and Annex II of MARPOL;
- Dangerous Goods, hazardous and harmful substances, materials and articles including environmentally hazardous substances (marine pollutants) and wastes covered by the IMDG Code; and
- solid bulk materials possessing chemical hazards and solid bulk materials hazardous only in bulk (MHBs), including wastes covered by Appendix B of the IMO Code of Safe Practice for Solid Bulk Cargoes (BC Code).

1.4.2 Dangerous Goods

Dangerous Goods as determined by UN criteria are the major subset of Dangerous Cargoes.

1.5 Coming into Force

These APMT Dangerous Goods Guidelines come into force on 1st June 2021.

2.1 Classification

Dangerous Goods are classified by a specialist committee of the UN. The classification is determined by the type of risk involved although it should be noted that the numerical order of the UN classes is not that of the degree of danger.

The objective of the UN definitions is to indicate which goods are dangerous and in which class, according to their specific characteristics, they should be included. These definitions have been devised to provide a common pattern which should prove possible to follow in the various national and international regulations.

Dangerous Goods (including mixtures and solutions) are assigned to one of nine classes according to the hazard or the most predominant of the hazards they present. Some of these classes are subdivided into divisions. These classes and divisions are described in Table 1 below.

Table 1: Classification of Dangerous Goods

Classification	Description
Class 1:	Explosives
- 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
- Division 1.6	Extremely insensitive articles which do not have a mass explosion hazard

Classification	Description
Class 2:	Gases
- Division 2.1	Flammable gases
- Division 2.2	Non-flammable, non-toxic gases
- Division 2.3	Toxic gases
Class 3:	Flammable Liquids
Class 4:	Flammable solids; substances liable to spontaneous combustion; substances which, on contact with water, emit flammable gases
- Division 4.1	Flammable solids, self-reactive substances and solid desensitised explosives
- Division 4.2	Substances liable to spontaneous combustion
- Division 4.3	Substances which in contact with water emit flammable gases
Class 5:	Oxidizing substances and organic peroxides
- Division 5.1	Oxidizing substances
- Division 5.2	Organic peroxides
Class 6:	Toxic and infectious substances
- Division 6.1	Toxic substances
- Division 6.2	Infectious substances
Class 7:	Radioactive material
Class 8:	Corrosive substances
Class 9:	Miscellaneous dangerous substances and articles

For packing purposes, substances other than those of Classes 1, 2 and 7, divisions 5.2 and 6.2 and other than self-reactive substances of Division 4.1 are assigned to three Packing Groups in accordance with the degree of danger they present:

- Packing Group I: Substances presenting high danger;
- Packing Group II: Substances presenting medium danger; and
- Packing Group III: Substances presenting low danger.

2.2 UN Numbers and Proper Shipping Numbers

Dangerous Goods are assigned to UN numbers and Proper Shipping Names (PSN) according to their hazard classification and their composition. The precise information is crucial during transport and it ensures the correct handling, stowage and segregation. The PSN is mandatory for transport documentation and labelling and no alternatives or variations are permitted.

Goods commonly carried onboard ships are listed in the IMDG Code. Where an article or substance is specifically listed by name, it is identified in transport by the PSN in the Dangerous Goods List; Volume 2 Part 3 of the IMDG Code. For Dangerous Goods not specifically listed by name "generic" or "not otherwise specified" entries are provided in the IMDG Code to identify the article or substance in transport.

Each entry in the Dangerous Goods List in the IMDG Code is characterized by a UN number. This list also contains relevant information for each entry, such as hazard class, subsidiary risk(s) (if any), Packing Group (where assigned), packing and tank transport requirements, etc.

A mixture or solution containing a single dangerous substance specifically listed by name in the Dangerous Goods List and one or more substances not subject to the IMDG Code is assigned the UN number and PSN of the dangerous substance, unless:

- (a) The mixture or solution is specifically identified by name in the IMDG Code;
- (b) The entry in the IMDG Code specifically indicates that it applies only to the pure substance;
- (c) The hazard class or division, physical state or packing group of the solution or mixture is different from that of the dangerous substances; or
- (d) There is significant change in the measures to be taken in emergencies.

In those other cases, except the one described in (a), the mixture or solution is treated as a dangerous substance not specifically listed by name in the Dangerous Goods List.

For a solution or mixture with hazard class, the physical state or the Packing Group is changed in comparison with the listed substance, the appropriate 'Not Otherwise Specified' (NOS) entry is used including its packaging and labelling provisions.

The PSN is that portion of the entry most accurately describing the goods in the Dangerous Goods List, which is shown in upper case characters (plus any numbers, Greek letters, "sec", "tert", and the letters m, n, o, p, which form an integral part of the name). An alternative PSN may be shown in brackets following the main PSN [e.g., ETHANOL (ETHYL ALCOHOL)]. Portions of an entry appearing in lower case need not be considered as part of the PSN but may be used.

3. GENERAL REQUIREMENTS

3.1 Operational Procedures

As appropriate, each terminal is required to develop and implement operational procedures for the transport handling or storage of Dangerous Goods. These procedures must form part of a Safety Management System that enables the identification, assessment and control of risks associated with the handling of Dangerous Goods, and take due account of Best International Practices, in particular IMO recommendations, in relation to safe transport of Dangerous Cargoes and related activities in port areas.

3.2 Notifications

APMT Apapa must be advised of all Dangerous Goods to be imported or exported by vessel, including transshipments and/or goods transiting the ports. In the case of Dangerous Goods arriving by sea, the method of notification is through the Ships Pre-Arrival Security Information Form, which must be submitted not less than 48 hours prior to arrival. In the case of Dangerous Goods arriving by land, for export, notification should be submitted to the terminal operator in accordance with the terminal operator's terms and conditions.

3.3 Reporting of Incidents

Any incident involving Dangerous Goods in a port must immediately be reported to APMT, initially by telephone on 08039790215 and by mail.

3.4 Packaging and Labelling

All Dangerous Goods delivered to or from a port area must be packaged, marked, labelled and placarded in accordance with the IMDG Code.

3.5 Segregation and Safe Storage of Dangerous Goods

Certain Dangerous Goods are incompatible with other goods. They may also present a risk if exposed to high temperatures, solar radiation or moisture etc.

Every terminal handling Dangerous Goods must ensure the required segregation and environmental conditions are always maintained, as determined through reference to the IMDG Code or the UN Model Regulations, as appropriate. This includes Dangerous Goods being transported through a port area. The Material Safety Data Sheet (MSDS) for each substance or product provides more detailed information on the conditions for handling. Time limitations on the storage of Dangerous Goods in an APMT facility are defined in Section 5.

3.6 Area for Damaged Dangerous Goods and Disposal

A terminal handling Dangerous Goods must ensure that an area is designated for the storage of any damaged Dangerous Goods Cargo Transport Units (CTU). This area must be provided with suitable facilities to enable the:

- (a) repacking of CTUs; and
- (b) the separation and disposal of waste contaminated by Dangerous Goods.

3.7 Dangerous Goods Advisor

Every terminal transporting, handling or storing Dangerous Goods must appoint a Dangerous Goods Advisor.

The functions of a Dangerous Goods advisor include:

- (a) monitoring compliance with applicable law governing the transport, handling or storage of Dangerous Goods in a port area and these APMT Dangerous Goods Guidelines;
- (b) monitoring the following practices and procedures relating to the activities of the terminal or berth operator which concern Dangerous Goods:
 - .1 the procedures for compliance with the regulations governing the identification of Dangerous Goods;
 - .2 the procedures for checking the equipment used in connection with the transport, handling or storage of Dangerous Goods;
 - .3 proper training of personnel and the maintenance of records of such training (see Section 8);
 - .4 the implementation of proper emergency procedures in the event of any accident or incident that may affect safety during the transport, handling or storage of Dangerous Goods;
 - .5 the investigation of and, where appropriate, preparation of reports on serious incidents or infringements recorded during the transport, handling or storage of Dangerous Goods;
 - .6 the implementation of appropriate measures to avoid the recurrence of incidents or infringements;
 - .7 the account taken of the legal prescriptions and special requirements associated with the transport, handling or storage of Dangerous Goods in the choice and use of sub- contractors or third parties;

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- .8 verification that personnel involved in the transport, handling or storage of Dangerous Goods have detailed operational procedures and instructions;
 - .9 the introduction of measures to increase awareness of the risks inherent in the transport, handling or storage of Dangerous Goods,
 - .10 the implementation of verification procedures to ensure the presence of the documents and safety equipment that must accompany any vehicle leaving a port area transporting Dangerous Goods;
 - .11 the compliance of the documents and equipment required to accompany any vehicle transporting Dangerous Goods with health and safety regulations; and
 - .12 the implementation of verification procedures to ensure compliance with legislation governing loading and unloading of Dangerous Goods from a vessel.

Two or more individuals may be appointed to fulfill the role of the Dangerous Goods Advisor subject to each being appropriately trained and all the functions listed above being addressed.

3.8 Emergency Preparation

Each terminal must have a written emergency plan in place for dealing with any dangerous situation arising from the transport or handling of Dangerous Goods.

The emergency plan must be developed in consultation with the emergency services authorities and submitted to APMT for review.

All persons engaged in transport or handling Dangerous Goods in a port area must be aware of the emergency plan, and competent in operating any necessary response equipment that they may be required to use.

Any safety equipment that may be required for an emergency must be readily available.

3.9 Inspections and Audits

APMT must be granted reasonable access to undertake inspections and audits to evaluate compliance with these APMT Dangerous Goods Guidelines.

3.10 Empty, Un-Cleaned Cargo Transport Units

Throughout this APMT Dangerous Goods Guidelines, empty CTUs retaining residues of Dangerous Goods, or loaded with empty uncleaned packages, or empty uncleaned bulk containers, must comply with the provisions applicable to the goods previously contained in that CTU.

4. SUPPLY OF INFORMATION

4.1 Overview

APMT must be notified prior to any Dangerous Goods entering a port, by sea or land. This includes Dangerous Goods in transit, or Dangerous Goods to be loaded or unloaded at the terminal. This notification is crucial to the safe management of the port, particularly in the case of an incident.

4.2 Entry of Dangerous Goods by Sea

The notification of Dangerous Goods entering port on board a vessel must be submitted to APMT Apapa at least 48 hours prior to its arrival. A reduced period of notification may be accepted only on emergency.

4.3 Entry of Dangerous Goods by Land

The notification of Dangerous Goods entering a port area by land must be submitted to APMT Apapa at least 24 hours prior to its arrival.

4.4 Accuracy of Dangerous Goods Notification

The information notified to APMT Apapa in relation to Dangerous Goods must be accurate and in accordance with the IMDG Code. Submission of inaccurate or incomplete information constitutes an offence under the APMT facility Management Byelaws. It may also lead to delays for the vessel and / or the cargo concerned.

4.5 Documentation

Documentation accompanying Dangerous Goods must be in accordance with the IMDG Code.

In the case of packaged Dangerous Goods, a list must be provided showing the:

- (a) PSN of the Dangerous Goods;
- (b) UN number;
- (c) Class or, when assigned the division of the goods, including for IMDG Class 1 Dangerous Goods, the compatibility group letter (if applicable);
- (d) number and type of Packages;
- (e) Packing Group;
- (f) flashpoint range (as appropriate); and
- (g) quantity.

4.6 Leaking CTUs

If a leaking Dangerous Goods CTU is detected after the submission of a Dangerous Goods notification, the vessel Master and / or his agent must immediately amend the declaration and nominate the leaking container and / or associated issue. In addition, APMT Apapa must be supplied with:

- The MSDS for the product(s);
- The manifest for the CTU;
- The 24-hour contact details of the:
 - Transport company;
 - Storage facility; and
 - Importer.

5. TIME LIMITATIONS

5.1 Introduction

These limitations on the storage of Dangerous Goods apply to all imports, exports, transshipments and transit cargoes that are being re-stowed.

In pursuit of minimizing the risk associated with the handling of Dangerous Cargoes, it is strongly recommended that the time Dangerous Goods are kept within a port area is minimised. The principle of reducing risk as far as reasonably practicable is applied in APMT facility, and minimizing the time the Dangerous Goods are held within a port area will contribute toward minimizing the overall risk profile for a port.

5.2 Two Hours Maximum

All IMDG Class 1 and Class 7 Dangerous Goods CTUs, except Class 1.4 and Class 7 Low Specific Activity (LSA) cargo, must:

- (a) be removed from a port area within two hours of being unloaded from a vessel; and,
- (b) not enter a port area more than two hours prior to the cargo being loaded onto a vessel.

5.3 Twelve Hours Maximum

All Dangerous Goods CTUs specified in Table 2 below must:

- (a) be removed from a port area within twelve hours of being unloaded from a vessel; and,
- (b) not enter a port area more than twelve hours prior to the cargo being loaded onto a vessel.

Table 2: Cargoes Subject to Twelve Hour Limit

Cargo	Quantity
IMDG Class 1.4 & Class 7	Any
IMDG Class 2.1 (excluding UN 1950-Aerosols)	>500kg
IMDG Class 2.3	>500kg
IMDG Class 3 Packing Group 1	>500kg

Cargo	Quantity
IMDG Class 4 Packing Group 1	>500kg
IMDG Class 5.1 Packing Group 1	>500kg
Ammonium Nitrate (Class 5.1) UN No's 1942, 2067, 2426 and 3375	>500kg
Calcium Hypochlorite (Class 5.1) UN No's 1748,2880,3485 and 3487	>500kg
IMDG Class 6.1 Packing Group 1	>500kg
IMDG Class 8 Packing Group 1	>500kg
Dangerous Goods in break bulk.	Any

5.4 Five Days Maximum

All Dangerous Goods CTUs of IMDG Class 2, 3, 4, 5, 6, 8 or 9 others than those in Table 2 above and cargoes listed in Table 2 not exceeding 500kg mass must:

- (a) be removed from a port area within five days of being unloaded from a vessel; and
- (b) not enter a port area more than five days prior to the cargo being loaded onto a vessel.

5.5 Time Period

The permitted time periods defined above are calculated from the time the CTU arrives at the berth or port gate, until the time the CTU leaves the port gate, or is loaded on a vessel.

5.6 Storage

The storage of Dangerous Goods CTUs will not normally be permitted in an APMT facility beyond the time limits specified above. All Dangerous Goods CTUs requiring storage must be removed to a suitable facility offsite or suitably cleaned (see Section 3.10).

5.7 Extensions

On application APMT Apapa may grant extensions to the time limits detailed above. Any request for extension must be supported with detailed justification for the delay

in removing Dangerous Goods from the port.

5.8 High Consequence Dangerous Goods

7.5.1 Overview

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.

7.5.2 Definition

As defined in the IMDG Code, the indicative list of High Consequence Dangerous Goods is shown in Table 5 below.

Table 5: High Consequence Dangerous Goods

IMDG Class	Substance / Articles
1.1	Explosives
1.2	Explosives
1.3	Compatibility group C explosives
1.4	For UN Nos. 0104, 0237, 0255, 0267, 0289, 0361, 0365, 0366, 0440, 0441, 0455, 0456 and 0500
1.5	Explosives
2.1	Flammable gases in quantities greater than 3000 litres in a CTU
2.3	Toxic gases
3	Flammable liquids of packing groups I and II in quantities greater than 3000 litres in a CTU and desensitized liquid explosives
4.1	Desensitized solid explosives
4.2	Goods of Packing Group I in quantities greater than 3000 kg or 3000 litres in a CTU
4.3	Goods of Packing Group I in quantities greater than 3000 kg or 3000 litres in a CTU
5.1	Oxidizing liquids of packing group I in quantities greater than 3000 litres in a CTU
5.1	Perchlorates, ammonium nitrate, ammonium nitrate fertilizers and ammonium nitrate emulsions or suspensions or gels in quantities greater than 3000 kg or 3000 litres in a CTU

6.1	Toxic substances of Packing Group I
6.2	Infectious substances of category A (UN Nos. 2814 and 2900)
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
8	Corrosive substances of packing group I in quantities greater than 3000 kg or 3000 litres in a CTU

7.5.3 APMT Approval

Shipping lines should not accept High Consequence Dangerous Goods into APM Terminals Apapa' facility without securing prior approval from APMT and all other relevant authorities. Lines are to comply with any additional security or other requirements as may be determined on a case-by-case basis by APMT or other relevant authority.