



Isle of Man
CIVIL AVIATION ADMINISTRATION

CAA Publication 13

Dangerous Goods

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Amendment Record

| Amendment | Date | Details |
|-----------|------|---------|
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Foreword

1. The IOM CAA is the division of the Government's Department for Enterprise that is responsible for regulating aviation safety and security in the Isle of Man. The IOM CAA also administers the Isle of Man Aircraft Registry and is responsible for ensuring aviation legislation in the Isle of Man meets International Civil Aviation Organisation Standards and Recommended Practices and other relevant European aviation standards. The IOM CAA (on behalf of the Department for Enterprise) is the Isle of Man appropriate national authority for the purposes of the Civil Aviation (Safe Transport of Dangerous Goods by Air) Order 2020¹ and responsible for ensuring compliance with Annex 18 of the Convention on International Civil Aviation.
2. The Isle of Man has its own aviation safety legislation separate from the UK. Therefore, unless UK or EU aviation safety regulations have been explicitly applied into Isle of Man law, they have no legal effect on the Island.
3. This CAA Publication identifies relevant legislation and IOM CAA policy requirements and guidance on the safe transportation of dangerous goods by air within the Isle of Man. This publication **does not** provide detail regarding the transport of dangerous goods by aircraft registered in the Isle of Man; this information is provided in Registry Publication 4.

¹ SD 2020/0138

Interpretations

“acceptance check list”:

a document used to assist in carrying out a check on the external appearance of packages of dangerous goods and their associated documents to determine that all appropriate requirements have been met;

“accident”:

an occurrence associated with the operation of an aircraft which, in the case of a manned aircraft, takes place between the time any person boards the aircraft with the intention of flight until such time as all such persons have disembarked, or in the case of an unmanned aircraft, takes place between the time the aircraft is ready to move with the purpose of flight until such time it comes to rest at the end of the flight and the primary propulsion system is shut down, in which -

a. a person is fatally or seriously injured as a result of:

- (i) being in the aircraft;
- (ii) direct contact with any part of the aircraft, including parts which have become detached from the aircraft; or
- (iii) direct exposure to jet blast,

except when the injuries are from natural causes, self-inflicted or inflicted by other persons, or when the injuries are to stowaways hiding outside the areas normally available to the passengers and crew;

b. the aircraft sustains damage or structural failure which adversely affects the structural strength, performance or flight characteristics of the aircraft, and would normally require major repair or replacement of the affected component, except for engine failure or damage, when the damage is limited to a single engine,(including its cowlings or accessories), to propellers, wing tips, antennas, probes, vanes, tires, brakes, wheels, fairings, panels, landing gear doors, windcreens, the aircraft skin (such as small dents or puncture holes) or minor damages to main rotor blades, tail rotor blades, landing gear, and those resulting from hail or bird strike, (including holes in the radome); or

c. the aircraft is missing or is completely inaccessible;

“aircraft operator”:

a person, organisation or enterprise engaged in or offering to engage in an aircraft operation;

“approval”:

an authorisation granted by an appropriate national authority for:

- a. the transport of dangerous goods forbidden on aircraft where the Technical Instructions state that such goods may be carried with an approval; or
- b. other purposes as provided for in the Technical Instructions;

“appropriate national authority”:

the authority of a contracting State to the Chicago Convention responsible for ensuring compliance with Annex 18 of the Convention;

“cargo aircraft”:

any aircraft, other than a passenger aircraft, which is carrying goods or property;

“consignment”:

one or more packages of dangerous goods accepted by an aircraft operator from one shipper at one time and at one address, receipted for in one lot and moving to one consignee at one destination address;

“dangerous goods”:

an article or substance which is capable of posing a hazard to health, safety, property or the environment and which are shown in the list of dangerous goods in the Technical Instructions or which are classified according to those Instructions;

“dangerous goods accident”:

an occurrence associated with and related to the transport of dangerous goods by air which results in fatal or serious injury to a person or major property or environmental damage;

“dangerous goods incident”:

an occurrence, other than a dangerous goods accident, whether or not occurring on board an aircraft, that -

- a. is associated with and related to the transport of dangerous goods by air, which results in injury to a person or property, environmental damage, fire, breakage, spillage, leakage of fluid, radiation or other evidence that the integrity of the packaging has not been maintained; or
- b. relates to the transport of dangerous goods and which seriously jeopardizes the aircraft or its occupants;

“dangerous goods transport document”:

a document which is specified by the Technical Instructions and contains information about the dangerous goods that are to be carried on an aircraft;

“designated postal operator”:

any governmental or non-governmental entity officially designated by a Universal Postal Union (UPU) member country to operate postal services and to fulfil the related obligations arising from the acts of the Universal Postal Convention³ on its territory;

“exemption”:

an authorisation, other than an approval, granted by an appropriate national authority providing relief from the provisions of this Order or the Technical Instructions, and “exempted” is to be construed accordingly;

“freight forwarder”:

a person who offers the service of arranging the transport of cargo by air;

“munitions of war”:

Any:

- a. weapon or ammunition;
- b. article containing an explosive, noxious liquid or gas; or
- c. other thing;

that is designed or made for use in warfare or against persons, including parts, whether components or accessories, for such weapon, ammunition or article;

“overpack” means

an enclosure used by a single shipper to contain one or more packages and to form one handling unit for convenience of handling and stowage, but does not include a unit load device;

“package” means

the complete product of the packing operation consisting of the packaging and its contents prepared for transport;

“packaging” means

receptacles and any other components or materials necessary for the receptacle to perform its containment function;

“proper shipping name” means

the name to be used to describe a particular article or substance in all shipping documents and notifications and, where appropriate, on packagings, as required by the Technical Instructions;

“serious incident”:

an incident involving circumstances indicating that there was a high probability of an accident and is associated with the operation of an aircraft, which in the case of a manned aircraft, takes place between the time any person boards the aircraft with the intention of flight until such time as all such persons have disembarked, or in the case of an unmanned aircraft, takes place between the time the aircraft is ready to move with the purpose of flight until such time it comes to rest at the end of the flight and the primary propulsion system is shut down;

“State of Origin” means

the State in the territory of which the consignment is first to be loaded on an aircraft;

“State of Registry” means

the State on whose register the aircraft is entered;

“State of the aircraft operator” means

the State in which the aircraft operator’s principal place of business is located or, if there is no such place of business, the aircraft operator’s permanent residence;

“Technical Instructions” means

the Technical Instructions for the Safe Transport of Dangerous Goods by Air (Doc 9284), approved and issued periodically in accordance with the procedure established by the International Civil Aviation Organisation Council;

“unit load device” means

any type of freight container, aircraft container, aircraft pallet with a net, or aircraft pallet with a net over an igloo, but does not include an overpack;

“UN number” means

the four-digit number assigned by the United Nations Committee of Experts on the Transport of Dangerous Goods and on the Globally Harmonized System of Classification and Labelling of Chemicals to identify an article or substance or a particular group of articles or substances; and

"visiting force" means

any such body, contingent or detachment of the forces of any country as is a visiting force for the purposes of the Visiting Forces Act 19526 -

- a. which apply to that country by virtue of section 1(1)(a) of that Act; or
- b. which from time to time apply to that country by virtue of section 1(1)(b) and of any Order in Council made or hereafter to be made under section 1 designating that country for the purposes of that Act following section 2(2) of that Act.

Abbreviations

IATA International Air Transport Association

ICAO International Civil Aviation Organisation

IOM CAA Isle of Man Civil Aviation Administration

1. Overview

What are Dangerous Goods?

- 1.1 Dangerous Goods are any articles or substances capable of posing a hazard to health, safety, property or the environment in relation to and shown in the list of dangerous goods in the "Technical Instructions" (see paragraph 1.4) or classified according to those Instructions.
- 1.2 These include obvious things, such as: explosives, radioactive materials, flammable liquids, dangerous or volatile chemicals, strong acids, compressed gases, poisons and aerosols. However, many common items found in the household can also be considered dangerous goods for the purpose of air transport, including: toiletries, aerosols, tools and lithium batteries etc.
- 1.3 Dangerous goods can be carried safely by air transport providing they are prepared, packaged, marked/labelled and carried in accordance with the Technical Instructions.

What are the Technical Instructions?

- 1.4 The Technical Instructions are the Technical Instructions for the Safe Transport of Dangerous Goods by Air (Doc 9284) published by the International Civil Aviation Organisation (ICAO). The Technical Instructions amplify the basic provisions of Annex 18 to the Convention on International Civil Aviation and contain all the detailed instructions necessary for the safe international transport of dangerous goods by air.



Figure 1 – ICAO Annex 18 and the Technical Instructions for the Safe Transport of Dangerous Goods by Air (Doc 9284)

- 1.5 The requirements of Annex 18 and the Technical Instructions are mandated in Isle of Man law by the Civil Aviation (Safe Transport of Dangerous Goods by Air) Order 2020² (hereon referred to as “the Dangerous Goods Order”).
- 1.6 The International Air Transport Association (IATA) publishes their own Dangerous Goods Regulations Manual based on the Technical Instructions and with additional restrictions imposed by airlines. Compliance with the IATA Dangerous Goods Regulations will result in compliance with the ICAO Technical Instructions and the Dangerous Goods Order.



Figure 2 – IATA Dangerous Goods Regulations

What is the Dangerous Goods Order?

- 1.7 The Dangerous Goods Order sets requirements on:
- a. persons involved in the handling, preparation and transport of dangerous goods by aircraft landing or taking off within the Isle of Man; and
 - b. aircraft registered in the Isle of Man, wherever they may be.

² SD 2020/0138

- 1.8 The Dangerous Goods Order does not apply to:
- a. a member of Her Majesty's naval, military or air forces or a visiting force acting in the course of his or her duties;
 - b. a remote pilot of a small unmanned aircraft;
 - c. a police officer who, acting in the course of his or her duty, carries munitions of war on board an aircraft; or
 - d. articles and substances which would otherwise be classed as dangerous goods but which are required to be aboard the aircraft in accordance with the pertinent airworthiness and operating requirements, or for specialised purposes identified in Chapter 2, Part 1 of the Technical Instructions.
 - e. specific articles and substances carried by passengers or crew members to the extent specified in Part 8 of the Technical Instructions.
- 1.9 Within this publication, legally binding text taken from the Dangerous Goods Order is identified by use of the verb "must". However, Courts of Law will refer only to the source regulatory material.

Appropriate National Authority

- 1.10 Annex 18 to the Convention on International Civil Aviation requires each State to designate an "appropriate authority" within its administration to be responsible for ensuring compliance with this Annex.
- 1.11 The Dangerous Goods Order specifies that the Department for Enterprise is the appropriate national authority for the Isle of Man. The IOM CAA is the division of the Department for Enterprise that is responsible for regulating aviation safety and security in the Isle of Man and therefore fulfils the role of the Island's appropriate national authority.

Shippers

- 1.12 Annex 18 to the Convention on International Civil Aviation, the Technical Instructions, and the Dangerous Goods Order all use the phrase 'shipper' and place requirements on this person. The shipper is anyone who sends dangerous goods by air or the person whom this task is contracted to.

The Need for Dangerous Goods Processes

- 1.13 The following accidents and serious incidents serve as examples as to the need for compliance with the regulations and associated procedures for the transport of dangerous goods by air.
- a. 3 November 1973, the three-crew members of a Pan Am Boeing 707 freighter were killed when the aircraft crashed following an in-flight fire caused by an improperly packaged, labelled and stowed consignment of nitric acid.
 - b. 11 May 1996, the crew of a DC9 were unable to keep control of their aircraft after fire broke out. All 110 persons on board were killed. The origin of the fire was found to have been live chemical oxygen generators loaded contrary to regulations.
 - c. 3 September 2010, a Boeing 747-400 freighter flight crew became aware of a main deck cargo fire 22 minutes after take off from Dubai. An emergency was declared and an air turn back commenced but a rapid build up of smoke on the flight deck made it increasingly difficult to see on the flight deck and to control the aircraft. An unsuccessful attempt to land at Dubai was followed by complete loss of flight control authority due to fire damage and terrain impact followed (see figure 1). The fire was attributed to auto-ignition of undeclared Dangerous Goods originally loaded in Hong Kong.



Figure 3 - Crash site of Boeing 747-400, Dubai, 3 September 2010

- d. 28 July 2011, 50 minutes after take-off from Incheon (South Korea), the crew of a Boeing 747-400F declared an emergency advising a main deck fire and an intention to divert to Jeju. The effects of the rapidly escalating fire eventually made it impossible to retain control and the aircraft crashed into the sea. The Investigation concluded that the origin of the fire was two adjacent pallets towards the rear of the main deck which contained Dangerous Goods shipments including Lithium ion batteries and flammable substances and that the aircraft had broken apart in mid-air following the loss of control.

- e. 7 October 2013 - a fire was discovered in the rear hold of an Airbus A330 shortly after it had arrived at its parking stand in Manila after an international passenger flight. The fire was eventually extinguished but only after substantial fire damage had been caused to the hold. The subsequent Investigation established that the source of the fire had been inadequately packed dangerous goods in passengers checked baggage on the just-completed flight.

2 Requirements for Transporting Dangerous Goods

Classification of Dangerous Goods

- 2.1 Dangerous goods transported by air must be classified in accordance with the provisions of Part 2 of the Technical Instructions.
- 2.2 The following are the classes of dangerous goods and everyday examples:

| Class | Name | Examples |
|-------|---|--|
| 1 | Explosives | - Fireworks - Ammunition |
| 2 | Gases | - Propane e.g. lighters - Aerosols e.g. deodorant or spray paint - Compressed air cylinders e.g. as contained in lifejackets |
| 3 | Flammable liquids | - Gasoline - Camping fuel - Acetone - Paint thinner |
| 4 | Flammable solids | - Matches - Krill meal |
| 5 | Oxidising Substances and Organic Pesticides | - Oxygen generators - Hydrogen peroxide - Methyl ethyl ketone peroxide |

| | | |
|---|--|---|
| 6 | Toxic and Infections Substances | <ul style="list-style-type: none"> - Arsenic - Pesticides - Virus samples |
| 7 | Radioactive Materials | <ul style="list-style-type: none"> - Radioactive medicines - Isotopes used in research - X-ray machines and other equipment with radioactive sources |
| 8 | Corrosive Materials | <ul style="list-style-type: none"> - Wet cell batteries - Bleach - Paint stripper - Drain cleaner |
| 9 | Miscellaneous Dangerous Goods and Environmentally Hazardous Substances | <ul style="list-style-type: none"> - Dry Ice - Environmentally hazardous substances - Lithium batteries |

Prohibition of transport of dangerous goods by air

- 2.3 The transport of dangerous goods by air is forbidden except in accordance with the Dangerous Goods Order and the detailed specifications and procedures provided in the Technical Instructions.
- 2.4 Articles and substances that are specifically identified by name or by generic description in Part 1 of the Technical Instructions as being forbidden for transport by air under any circumstances must not be offered for transport or carried on any aircraft.
- 2.5 Any dangerous goods that are identified in the Technical Instructions as being forbidden for transport by air in normal circumstances must not be loaded onto or transported on an aircraft unless:

- a. the provisions of the Technical Instructions indicate they may be transported under an approval granted by the appropriate national authority of the State of the aircraft operator and the State of Origin; or
- b. exempted by the appropriate national authority as provided for in the Technical Instructions.

General Requirements

2.6 Before a person offers any dangerous goods for transport by air the person must ensure that:

- a. the goods are not forbidden for transport by air in any circumstances under the Technical Instructions (also see 2.4);
- b. in a case where the goods are forbidden for transport by air unless an approval has been granted, the required approval has been obtained (also see paragraph 2.5 a.);
- c. the goods are properly classified in accordance with the Technical Instructions (also see paragraphs 2.1 and 2.2);
- d. the package is in a fit condition for transport by air (also see paragraphs 2.8-2.16);
- e. when one or more packages are placed in an overpack, the overpack only contains packages of goods permitted by the Technical Instructions to be carried and the overpack is marked and labelled as required by the Technical Instructions;
- f. unless otherwise provided for in the Technical Instructions a dangerous goods transport document:
 - (i) has been completed in English in addition to any other language required by the State of Origin as required by Part 5 of the Technical Instructions; and
 - (ii) contains a declaration signed by or on behalf of the shipper stating that the Technical Instructions have been complied with in that the dangerous goods:
 - (1) are fully and accurately described by their proper shipping names;
 - (2) are correctly classified, packed, marked and labelled; and
 - (3) are in a proper condition for transport by air; and

- g. the operator of the aircraft has been provided with the dangerous goods transport document required by paragraph (f) and such other documents in respect of dangerous goods as are required by Part 5 of the Technical Instructions.

2.7 An aircraft operator, shipper, or any other organisation involved in the transport of dangerous goods by air must provide such information to their personnel as will enable them to carry out their responsibilities with regard to the transport of dangerous goods and must provide instructions as to the action to be taken in the event of emergencies arising that involve dangerous goods as required by Part 7 of the Technical Instructions.

Packing

2.8 A person who offers dangerous goods for transport by air must ensure that dangerous goods are packed in accordance with 2.9-2.15 and as provided for in Parts 4 and 6 of the Technical Instructions.

2.9 Part 4 of the Technical Instructions provides the general and specific packing requirements for the particular substance or article and its class. Part 6 of the Technical Instructions provides the packing nomenclature, marking requirements and tests required for the various classes and divisions of dangerous goods.

2.10 Packagings used for the transport of dangerous goods by air must:

- a. be of good quality and must be constructed and securely closed so as to prevent leakage which might be caused in normal conditions of transport by changes in temperature, humidity or pressure, or by vibration;
- b. be suitable for the contents;
- c. meet the material and construction specifications in Part 6 of the Technical Instructions; and
- d. be tested in accordance with the provisions of Part 6 of the Technical Instructions.

2.10 Packagings in direct contact with dangerous goods must be resistant to any chemical or other action of such goods.

2.11 Packagings for which retention of a liquid is a basic function, must be capable of withstanding, without leaking, the pressure stated in Part 6 of the Technical Instructions.

2.12 Inner packagings must be so packed, secured or cushioned as to prevent their breakage or leakage and to control their movement within the outer packaging(s) during normal conditions of air transport. Cushioning and absorbent materials must not react dangerously with the contents of the packagings.

- 2.13 No packaging must be reused until it has been inspected and found free from corrosion or other damage. Where a packaging is reused, all necessary measures must be taken to prevent contamination of subsequent contents.
- 2.14 If, because of the nature of their former contents, uncleaned empty packagings may present a hazard, they must be tightly closed and treated according to the hazard they constitute.
- 2.15 No harmful quantity of a dangerous substance must adhere to the outside of packages during transport.



Figure 4 – Dangerous goods packing and labelling

Labelling and marking

- 2.16 A person who offers dangerous goods for transport by air must ensure that -
 - a. appropriate labels are displayed on each package of dangerous goods in accordance with Part 5 of the Technical Instructions, unless otherwise provided for in those Instructions;
 - b. each package of dangerous goods is marked with the proper shipping name of its contents and, when assigned, the UN number and such other markings as may be specified in the Technical Instructions, unless otherwise provided for in Parts 5 and 6 of those Instructions;
 - c. each packaging manufactured to a specification contained in the Technical Instructions is marked in accordance with the appropriate provisions of those Instructions and no packaging is marked with a packaging specification marking unless it meets the appropriate packaging specification contained in the Instructions, unless otherwise provided for in Part 6 of the Instructions; and

- d. each package of dangerous goods is marked and labelled in English in addition to any other language required by the State of Origin as specified in Parts 1, 3 and 6 of the Technical Instructions.

3. Additional Requirements for Aircraft Operations

Note: Requirements specific for operators of aircraft registered in the Isle of Man (M registered aircraft) are in Registry Publication (RP) 4.

General approval to carry dangerous goods by air

- 3.1 An aircraft operator of an aircraft flying/operating in the Isle of Man that is carrying dangerous goods must hold an approval to carry dangerous goods issued by the appropriate national authority.
- 3.2 The appropriate national authority is:
 - a. for commercial air transport, that designated in the State of the aircraft operator;
or
 - b. for general aviation, that designated in the State where the aircraft is registered.

Acceptance for transport

- 3.3 An aircraft operator must not accept dangerous goods for transport by air unless:
 - a. the dangerous goods are accompanied by a dangerous goods transport document, completed as required by paragraph 2.6 f. except where the Technical Instructions indicate that such a document is not required; and
 - b. the package, overpack or freight container containing the dangerous goods has been inspected for leakage or damage in accordance with the acceptance procedures contained in Part 7 of the Technical Instructions.
- 3.4 An aircraft operator must develop and use an acceptance checklist as an aid to compliance with the provisions of 3.3 a. and b.

Loading

- 3.5 An aircraft operator of an aircraft in which dangerous goods are to be carried must ensure that:
 - a. dangerous goods are not carried in an aircraft cabin occupied by passengers or on the flight deck of an aircraft, except in circumstances permitted by the provisions of Part 7 of the Technical Instructions;

- b. any packages and overpacks containing dangerous goods and freight containers containing radioactive materials are loaded, stowed and segregated on an aircraft in accordance with the provisions in Chapter 2 of Part 7 of the Technical Instructions;
- c. packages of dangerous goods bearing the "cargo aircraft only" label must be loaded in accordance with the provisions of Part 7 of the Technical Instructions; and
- d. packages of radioactive materials are stowed on an aircraft so that they are separated from persons, live animals and undeveloped film in accordance with the provisions of Part 7 of the Technical Instructions.



Figure 5 – Overpack

Inspection for damage or leakage

3.6 In accordance with Part 7 of the Technical Instructions an aircraft operator of an aircraft in which dangerous goods are to be carried must ensure that:

- a. packages and overpacks containing dangerous goods and freight containers containing radioactive materials are inspected for evidence of damage or leakage before being loaded on an aircraft or placed in a unit load device and packages, overpacks or freight containers which are leaking or damaged must not be loaded on an aircraft;
- b. a unit load device containing dangerous goods is not loaded aboard an aircraft unless it has been inspected and found free from any evidence of leakage from, or damage to, any of the dangerous goods contained in it;

- c. any package containing dangerous goods, or any overpack containing packages of dangerous goods, loaded on an aircraft which appears to be leaking or damaged is removed from the aircraft and the remainder of the consignment is in a proper condition for transport by air and no other package has been contaminated; and
- d. upon unloading from the aircraft, all packages or overpacks containing dangerous goods and freight containers containing radioactive materials, are inspected for signs of damage or leakage and if there is such evidence must ensure that any part of the aircraft where the package, overpack or freight container was stowed is inspected for damage or contamination.



Figure 6 – Unit Load Device

Removal of contamination by an aircraft operator

- 3.7 An aircraft operator must ensure that any hazardous contamination found on an aircraft as a result of leakage or damage to dangerous goods is removed without delay.
- 3.8 An aircraft operator must ensure that an aircraft is not permitted to fly if it is known or suspected that radioactive materials have leaked in or contaminated the aircraft, unless the radiation level resulting from the fixed contamination at any accessible surface and the non-fixed contamination are not more than the values specified in Part 7 of the Technical Instructions.

Securing of dangerous goods

- 3.9 An aircraft operator must:

- a. protect dangerous goods loaded in an aircraft from damage and secure such goods in the aircraft in such a manner that will prevent any movement in flight which would change the orientation of the packages; and
- b. in the case of packages containing radioactive materials, ensure that the securing is adequate and that the separation requirements of article 3.4 d. are met at all times.

Provision of information by the operator to flight crew

- 3.10 As early as practicable before an aircraft in which dangerous goods are to be carried moves under its own power an aircraft operator must provide to the pilot in command written information about the dangerous goods as specified in Chapter 4, Part 7 of the Technical Instructions.
- 3.11 An aircraft operator must provide such information in established operating procedures as will enable the flight crew members to carry out their responsibilities with regard to the transport of dangerous goods, including the actions to be taken in the event of emergencies involving dangerous goods as required by Part 7 of the Technical Instructions.

Information from pilot in command to aerodrome authorities

- 3.12 A pilot in command of an aircraft carrying dangerous goods as cargo must, in the event of an in-flight emergency and as soon as the situation permits, inform the appropriate air traffic services unit for the information of aerodrome authorities of those dangerous goods, in accordance with Part 7 of the Technical Instructions.

Information in the event of an aircraft accident or incident

- 3.13 In the event of:
- a. an accident; or
 - b. a serious incident,

an aircraft operator of an aircraft carrying dangerous goods as cargo that is involved in the accident or serious incident must provide information, without delay, to emergency services responding to the accident or serious incident about the dangerous goods on board, as shown on the written information to the pilot in command required under paragraph 3.10.

- 3.14 An aircraft operator must, as soon as possible, also provide the information referred to in paragraph (1) to the appropriate authorities of the State of the aircraft operator, State of Registry and the State in which the accident or serious incident occurred.
- 3.15 In the event of any other occurrence pertaining to an aircraft carrying dangerous goods as cargo, an aircraft operator must, if requested to do so, provide information without delay to emergency services responding to the occurrence and to the appropriate authority of the State in which the occurrence took place, about the dangerous goods on board, as shown on the written information to the pilot-in-command.

Keeping of documents and records

- 3.16 An aircraft operator must keep for not less than three months:
- a. any dangerous goods transport document which has been provided to them by the shipper in accordance with paragraph 3.3 b. and any other document in respect of dangerous goods provided to the aircraft operator in accordance with paragraph 2.6 g.;
 - b. the record of any acceptance checklist completed in accordance with paragraph 3.4; and
 - c. the written information to the pilot in command as required by paragraph 3.11.
- 3.17 The record referred to in paragraph 3.16 b. may be in a legible or a non-legible form so long as the record is capable of being reproduced in a legible form.

Provision of information to passengers

- 3.18 An aircraft operator of an aircraft landing or taking off within the Isle of Man for the purpose of commercial air transport of passengers must ensure that passengers are warned as to the types of dangerous goods which they are forbidden from carrying on an aircraft, as provided for in Part 7 of the Technical Instructions, at –
- a. the point of ticket purchase;
 - b. the point of boarding pass issuance;
 - c. any location where a passenger and their baggage may be checked in; and
 - d. each of the areas at an airport maintained to assemble passengers to board an aircraft.
- 3.19 The requirements at 3.18 are equally applied to airport operators (see paragraph 5.1).

Provision of information in respect of cargo

- 3.20 An aircraft operator of an aircraft in which dangerous goods are to be carried as cargo must ensure that notices giving information about the transport of dangerous goods are displayed in sufficient number and prominence for this purpose at those places where cargo is accepted for transport.

Training

- 3.21 An aircraft operator of aircraft landing or taking off within the Isle of Man for the purpose of commercial air transport must establish and maintain initial and recurrent dangerous goods training programmes in accordance with Chapter 4, Part 1 of the Technical Instructions.

4. Additional Requirements for Designated Postal Operators

Overview

- 4.1 The Dangerous Goods Order includes specific provisions pertinent to designated postal operators. Isle of Man Post Office is a designated postal operator.
- 4.2 "Designated postal operator" means any governmental or non-governmental entity officially designated by a Universal Postal Union (UPU) member country to operate postal services and to fulfil the related obligations arising from the acts of the Universal Postal Convention³ on its territory.
- 4.3 With a few exceptions it is forbidden to post dangerous goods to international destinations, no matter what mode of transport is anticipated. However, some specific consumer products classified as dangerous goods have been permitted to be sent by post within the UK, or to/from the Channel Islands or the Isle of Man, but there are conditions that apply including: quantity limits; how they are packed; how they are marked/labelled. These conditions are specified in an exemption issued by the IOM CAA to Isle of Man Post Office.

Procedures

- 4.3 A designated postal operator in the Isle of Man must establish and maintain procedures for controlling the introduction into air transport of dangerous goods in mail originating in the Isle of Man.
- 4.4 The procedures referred to in paragraph 4.3 must be approved by the IOM CAA.
- 4.5 As part of the assessment for the issuance of an approval, the IOM CAA will undertake desk top review and on-site inspection⁴. An approval will be valid for a maximum of 3 years and renewals will be treated as per initial applications.

³ The Universal Postal Convention. International Treaty, 1874. The treaty provides a uniform framework of rules and procedures for the exchange of international mails.

⁴ including loading and unloading at Isle of Man Airport

Training

- 4.5 A designated postal operator in the Isle of Man must establish and maintained initial and recurrent dangerous goods training programmes in accordance with Chapter 4, Part 1 of the Technical Instructions.
- 4.6 The dangerous goods training programme referred to in paragraph 4.5 must be approved by the IOM CAA. The following guidance is provided to designated postal operators in submitting a training programme for review:
- a. Details of how the training will be carried out should be provided. For formal training courses, the course objectives, the training programme syllabus/curricula and examples of the written examination to be undertaken should be included.
 - b. Instructors should have knowledge of training techniques as well as in the field of transport of dangerous goods by air so that the subject is covered fully and questions can be adequately answered.
 - c. Training intended to give general information and guidance may be by any means including handouts, leaflets, circulars, slide presentations, videos, computer-based training, etc., and may take place on-the-job or off-the-job. The person being trained should receive an overall awareness of the subject. This training should include a written, oral or computer-based examination covering all areas of the training programme, showing that a required minimum level of knowledge has been acquired.
 - d. Training intended to give an in-depth and detailed appreciation of the whole subject or particular aspects of it should be by formal training courses, which should include a written examination, the successful passing of which will result in the issue of the proof of qualification. The course may be by means of tuition, as a self-study programme, or a mixture of both. The person being trained should gain sufficient knowledge so as to be able to apply the detailed rules of the Technical Instructions.
 - e. Training in emergency procedures should include as a minimum:
 - (i) dealing with damaged or leaking packages; and
 - (ii) other actions in the event of ground emergencies arising from dangerous goods.
 - f. Training should be conducted at intervals of no longer than 2 years. If the recurrent training is undertaken within the last 3 calendar months of the validity period, the new validity period should be counted from the original expiry date.

5. Additional Requirements for Aerodromes and Passenger Processing

Provision of Information to Passengers

- 5.1 An airport operator must ensure that passengers are warned as to the types of dangerous goods which they are forbidden from carrying on an aircraft, as provided for in Part 7 of the Technical Instructions, at –
- the point of ticket purchase;
 - the point of boarding pass issuance;
 - any location where a passenger and their baggage may be checked in; and
 - each of the areas at an airport maintained to assemble passengers to board an aircraft.
- 5.2 The requirements at 5.1 are equally applied to aircraft operators (see paragraph 3.18).



Figure 7 – Example passenger warning sign

Training

- 5.3 Initial and recurrent dangerous goods training programmes must be established and maintained in accordance with Chapter 4, Part 1 of the Technical Instructions by or on behalf of:
- a. a ground handling agency located at an airport which perform, on behalf of an aircraft operator, the act of processing passengers;
 - b. an agency, not located at an airport, which perform, on behalf of the operator, the act of checking in passengers; and
 - c. an agency engaged in the security screening of passengers and crew and their baggage and the security screening of cargo or mail.

Ground Handling

- 5.4 Ground handling organisations that undertake aircraft loading on behalf of the aircraft operator should also be aware of the following parts of the requirements on an aircraft operator specified in section 3 (Additional Requirements for Aircraft Operators):
- a. acceptance for transport;
 - b. loading;
 - c. inspection for damage or leakage;
 - d. removal of contamination by an aircraft operator;
 - e. securing of dangerous goods.

6. Additional Requirements for Shippers and Freight Forwarders

- 6.1 A "freight forwarder" means a person who offers the service of arranging the transport of cargo by air.
- 6.2 A shipper of dangerous goods (including packers and persons or organisations undertaking the responsibilities of the shipper) and a freight forwarder must establish and maintain initial and recurrent dangerous goods training programmes in accordance with Chapter 4, Part 1 of the Technical Instructions.
- 6.3 Shippers and freight forwarders that undertake aircraft loading on behalf of the aircraft operator should also be aware of the following parts of the requirements on an aircraft operator specified in section 3 (Additional Requirements for Aircraft Operators):
 - a. acceptance for transport;
 - b. loading;
 - c. inspection for damage or leakage;
 - d. removal of contamination by an aircraft operator;
 - e. securing of dangerous goods.

7. Exemptions

7.1 The IOM CAA may grant an exemption from the provisions of the Dangerous Goods Order:

- a. for any dangerous goods that are identified in the Technical Instructions as being forbidden for transport by air in normal circumstances but may be exempted by the appropriate national authority as provided for in the Technical Instructions (see paragraph 2.5 b); or
- b. to any person or class of persons in the following circumstances:
 - (i) in instances of extreme urgency;
 - (ii) when other forms of transport are inappropriate; or
 - (iii) when full compliance with the prescribed requirements under the Dangerous Goods Order is contrary to the public interest;

provided that the IOM CAA is satisfied that every effort has been made to achieve an overall level of safety in transport which is equivalent to the level of safety provided for in the Technical Instructions.

8. Safety Oversight and Audits

- 8.1 Oversight of the transport of dangerous goods by foreign aircraft operating to and from the Isle of Man is conducted as an integral part of the IOM CAA process for the safety assessment of foreign aircraft.
- 8.2 For designated postal operators, the IOM CAA shall undertake additional investigations, review, and/or on-site inspections as deemed necessary and appropriate.
- 8.3 The IOM CAA will undertake an on-site dangerous goods related inspection of the processing and security screening of passengers/crew and their baggage at Isle of Man Airport at least once every 2 years.
- 8.4 The IOM CAA will create a self-declaration questionnaire to be completed and submitted to the IOM CAA by the following entities at least once every 3 years:
 - a. agencies, not located at an airport, which perform, on behalf of the operator, the act of checking in passengers;
 - b. freight forwarders.
- 8.5 Where additional assurance is required, or in the event of safety concerns at any time, the IOM CAA shall undertake additional investigations, review, and/or on-site inspections of any entity that must comply with Dangerous Goods Order, as is deemed necessary and appropriate.