

# TECHNICAL GUIDANCE MATERIAL for

## **Dangerous Goods Approved Operators**

SUBJECT: TECHNICAL GUIDANCE MATERIAL FOR DANGEROUS GOODS APPROVED OPERATORS

EFFECTIVE DATE: 20 MARCH 2023

## **APPLICABILITY**

This process is applicable to all operators with a specific approval to transport dangerous as prescribed in Part 92 of SACAA CARs 2011, as amended, the SACATS DG and the ICAO Technical Instructions for the Safe Transport of DG by Air.

## 1. PURPOSE

- 1.1 This section contains guidance material and procedures to be used by operators which are approved to carry Dangerous Goods as part of their operations and must form part of the operations manual or can be contained in a dangerous good's standalone manual.
- 1.2 Nothing in this guidance material prohibits the operator from adding any information in their manuals which they may deem pertinent for safety with regards to Dangerous Goods.
- 1.3 Operators should note that this TGM is adapted to suit the Dangerous Goods section of the Flight Operations Manual as per below, but the operator may choose to develop a standalone dangerous goods manual containing all dangerous goods procedures from different areas of the operation.
- **Note 1:** Editorial notes within the following text indicate where the operator needs to add text to describe their specific operation. The editorial notes must be replaced with the operator's own text before submission to the CAA.
- **Note 2:** The following text makes numerous references to the International Civil Aviation Organization's Technical Instructions for the Safe Transport of Dangerous Goods by Air (Technical Instructions). Should the Operator have decided to use the IATA Dangerous Goods Regulations in lieu of the ICAO Technical Instructions, references to the ICAO Technical Instructions should be amended accordingly.
- **Note 3:** The Dangerous Goods manual shall contain the definitions and abbreviations, Records of Amendments, Table of Contents and List of Effective pages.

## 2. REQUIREMENTS

- 2.1 South African Civil Aviation Regulations (SACAR) Part 92 requires that an operator with a specific approval for the transport of dangerous goods as cargo must provide Instructions and procedures in the operations manual as follows:
  - a. establish a clear policy on the carriage of dangerous goods;
  - b. designate a dangerous goods responsible person as required by these regulations;
  - c. establish procedures in it's dangerous goods operation's manual to meet, at minimum,the requirements of the Technical Instructions and these regulations to enable personnel to:
    - i. identify and reject undeclared or mis-declared dangerous goods, including COMAT classified as dangerous goods;
    - ii. report to the appropriate authorities of the State of Operator and the State of occurrence of any:
      - (a) occasions where undeclared or mis-declared dangerous goods are discovered in cargo or mail; and
      - (b) dangerous goods incidents or accidents;
  - d. report to the State of the Operator and the State of Origin any occasions when dangerous goods are discovered to have been carried:
    - i. without being loaded, segregated, separated or secured in accordance with the Technical Instructions and these regulations; and
    - ii. without information having been provided to a PIC;
  - e. procedures on how to accept, handle, store, inspect, transport, load and unload dangerous goods, including COMAT classified as cargo onboard an aircraft;
  - f. provide the pilot in command with the accurate and legible written or printed information concerning dangerous goods that are to be carried as cargo;
  - g. provision of information to all employees (passenger handling, check-in, ramp handling, cargo; sales) and passengers as prescribed in these regulations;
  - h. procedures and Instructions to ensure that any employee, agent, or contract employee of the operator who prepares and offers COMAT classified as dangerous goods is fully trained as a dangerous goods shipper;
  - i. establish a dangerous goods training programme that meets the requirements of the Technical Instructions and these regulations;
  - j. Establish procedures to conduct risk assessment and quality audits pertaining to dangerous goods; and
  - k. Include other items prescribed in the regulations as part of the operator's manual.
- 2.2 The Dangerous Goods procedures manual or chapter in the operator's manual shall include procedures from all operational areas such as:
  - a) flight operations:
  - b) passenger handling operations;
  - c) ramp handling operations; and
  - d) cargo operations.

## 3. REFERENCE:

- i. Emergency Response Guidance for Aircraft Incidents Involving Dangerous Goods (Doc 9481)
- ii. Guidance for Safe Operations Involving Aeroplane Cargo Compartments (Doc 10102)

- iii. Guidance on a Competency-based Approach to Dangerous Goods Training and Assessment (Doc 10147)
- iv. ICAO Annex 18
- v. ICAO Annex 19
- vi. ICAO Annex 6
- vii. ICAO Annex 8
- viii. ICAO DOC 9284 Technical Instructions
- ix. South African Civil Aviation Regulations, 2011 as amended (SACAR)
- x. South African Civil Aviation Technical Standards (SA-CATS)

## 4. TERMS AND ABBREVIATIONS:

TGM for DG approved Operator

Where terms used in this programme are defined in the South African Civil Aviation Regulations, they are used in accordance with meanings and usage given therein. A wide variety of terms are used throughout the world to describe facilities, procedures and concepts for air operations and cargo warehouse operations. As far as possible the terms used in this document are those which have the widest international use.

TERM	DEFINITION
Dangerous Goods	Articles or substances which are capable of posing a hazard to health, safety,
	property or the environment and which are shown in the list of dangerous goods in the ICAO Technical Instructions, or which are classified according to these Technical Instructions.
Hidden Dangerous Goods	are defined as cargo declared under a general description which may contain hazardous articles that are not apparent.
Exception	A provision in ICAO Annex 18 which excludes a specific item of dangerous goods from the requirements normally applicable to that item.
Exemption	An authorization, other than an approval, granted by an appropriate national authority providing relief from the provisions of the Technical Instructions for the safe Transport of Dangerous Goods by air (ICAO Doc. 9284).
Dangerous Goods	Dangerous Goods are Articles or substances which are capable of posing a hazard to health, safety, property or the environment and which are shown in the list of DG in the ICAO Technical Instructions, or which are classified according to those Instructions.
ICAO competency Framework	A competency framework, developed by ICAO, is a selected group of competencies for a given aviation discipline. Each competency has an associated description and observable behaviours
Knowledge	Knowledge is specific information required to enable a learner to develop and apply the skills and attitudes to recall facts, identify concepts, apply rules or principles, solve problems, and think creatively in the context of work.
Observable behaviour	A single role-related behaviour that can be observed and may or may not be measurable.
Performance criteria	Statements used to assess whether the required levels of performance have been achieved for a competency. A performance criterion consists of an observable behavior, condition(s) and a competency standard

Re-issue: 20 March 2023

Page 3 of 57

Skill Skill is an ability to perform an activity or action. It is often divided into three types: motor, cognitive and metacognitive skills. Forbidden Unless Exempted dangerous goods that are forbidden under normal circumstances but may be carried with specific approvals. Operator a person, organization or enterprise engaged in, or offering to engage in a road and an aircraft operation Shipper the individual or company offering the consignment for shipment. They must fully comply with the DG Regulations when offering a consignment of dangerous goods Passenger & Cargo Aircraft dangerous goods to be carried on both passenger and Permissible cargo aircraft provided all the requirements of the Dangerous Goods Regulations are met and can be safely transported by air Cargo Aircraft Only dangerous goods that are considered to be too dangerous for carriage on passenger aircraft Consignment One or more packages of dangerous goods accepted by an 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. Handling agent An agent who performs on behalf of the operator some or all of the functions of the latter including receiving, accepting, loading, unloading, transferring or other

processing of passengers or cargo.

ABBREVIATION	DESCRIPTION
ATO	Aviation Training Organisations
SACARs	Civil Aviation Regulations
SACATs	Civil Aviation Technical Standards
CBTA	Competency-Based Training and Assessment
DG	Dangerous Goods
DGR	IATA Dangerous Goods Regulations
E: AVSEC	Executive: Aviation Security
FOM	Flight Operations Manual
OM	Operations Manual
IATA	International Air Transport Association
ICAO	International Civil Aviation Organisation
M: DG	Manager: Dangerous Goods
MOP	Manual of procedures
OJT	On the Job Training
POI	Principal Operations Inspector
SACAA	South African Civil Aviation Authority
SM	Senior Manager
SM: DC	Senior Manager: Dangerous Goods and Cargo Security
TI	ICAO Technical Instructions for the Safe Transport of Dangerous Goods by Air

#### 5. COMMITMENT STATEMENT

I declare that, To the best of my knowledge, the information contained in company <u>name (Pty) Ltd</u> Dangerous Goods manual for Air Transport is true and accurate, the practices and procedures set out in this Manual will be implemented and maintained at all sites of <u>Company name (Pty)Ltd</u>

This Procedures Manual will be adjusted and adapted to comply with all future relevant changes to Part 92 of the South African Civil Aviation regulations, unless Company name (Pty)Ltd informs the South African Civil Aviation Authority that it no longer wishes to convey dangerous goods by air.

Company name (Pty) Ltd will inform the South African Civil Aviation Authority in writing of:

- a) minor changes / deviation to its Dangerous Goods Manual promptly and at least within 10 working days; and
- major planned changes, such as new acceptance, labeling, handling, storage and segregation procedures and or major building works which might affect compliance with relevant Civil Aviation legislation or change of site/address, at least 15 working days prior to the commencement/the planned change,

In order to ensure compliance with relevant Civil Aviation legislation, company <u>name (Pty) Ltd</u> will cooperate fully with all inspections, as required, and provide access to all documents, as requested by authorized officers,

<u>Company name (Pty)Ltd</u> will inform the South African Civil Aviation Authority of any serious security breaches and of any suspicious circumstances which may be relevant to aviation security in particular any attempt to conceal prohibited articles in consignments,

<u>Company name (Pty)Ltd</u> will ensure that all relevant staff receive appropriate training and are aware of their security responsibilities under the company's Dangerous Goods manual, and

<u>Company name (Pty)Ltd</u> will inform the South African Civil Aviation Authority if it ceases trading; it no longer deals with conveyance of dangerous goods; or it can no longer meet the requirements of the relevant Civil Aviation legislation.

Signature:	Date:
Name surname, Managing Director	

I shall accept full responsibility for this declaration.

#### 6. AMENDMENTS TO MANUAL

- 1. All amendments to an approved Dangerous Goods manual shall be submitted to the SACAA for approval before being effected. The organisation will always operate in accordance with an approved Manual.
- 2. The Dangerous Goods manual may not be altered or amended without the written approval of the SACAA and of the person or position that undersigned the compliance undertaking as contained in the manual.
- 3. Where a revision of this programme is effected, the following steps will be followed:
  - a) A cover letter, indicating the amended pages and the number of amended pages.
  - b) New pages will be issued for insertion into the programme identified by a revision number and date.
  - c) Amendments will contain new information or revised meaning of text.
  - d) The old pages must be destroyed in a secure manner not accessible to unauthorised persons and the Record of Amendment completed accordingly.
  - e) Each recipient shall acknowledge receipt of updates and confirm implementation to the DG designated person within 48 hours after receipt.
- 4. Each holder of a copy of the Dangerous Goods manual is responsible to verify that all pages listed on the covering letter have been received.
- 5. The control, amendment and distribution of the Dangerous Goods manual or any subsequent amendments will be done by the DG designated person.
- 6. The DG designated person shall be responsible for the distribution of copies of the Dangerous Goods manual, amendments thereof or any subsequent Emergency Amendments.
- 7. The DG designated person is responsible for making such amendments as well as making them available to relevant staff once approved by the SACAA.
- 8. The DG designated person shall maintain a register to account for all copies or parts of the Dangerous Goods manual distributed/issued and shall ensure the retrieval of any absolute manuals not returned by assigned persons.

## 7. POLICY ON THE TRANSPORT OF DANGEROUS GOODS

It is the policy of (<u>Company name</u>) to transport Dangerous Goods. Dangerous Goods can only be carried according to the International Civil Aviation Organisation's Technical Instructions for the safe transport of Dangerous Goods by Air (TI) and the SA Civil Aviation Authority regulations Part 92 of 2011, as amended.

## 8. APPROVAL FOR THE TRANSPORT OF DANGEROUS GOODS

Dangerous goods can only be carried according to the latest International Civil Aviation Organization's Technical Instructions for the Safe Transport of Dangerous Goods by Air (Technical Instructions), irrespective of whether the flight is wholly or partly within or wholly outside the territory of a State. An approval must be granted by the State of the Operator before dangerous goods can be carried on an aircraft. An additional approval or an exemption may be required to permit the transport of some dangerous goods.

Note 1: Insert Text [Operator Name] holds an SACAA approval for the transport of dangerous goods by air.

**Note 2:** Should the Operator's policy prohibit the carriage of certain dangerous goods (e.g. radioactive material) these restrictions should be stated.

Note 3: Insert Text The following [person or post holder] is assigned responsibility for the Approval held:

## [Job Title/Name and contact details]

**Note 4:** As queries regarding the carriage of dangerous goods will often be escalated to the nominated person, arrangements need to be established to ensure continuity of supervision in the absence of the person nominated by the operator as having overall responsibility for the transport of dangerous goods by air. Should the operator have multiple base stations, a procedure must be documented detailing the coordination or consideration to appoint additional Group A qualified personnel to assist the nominated responsible person.

## 9. FORBIDDEN DANGEROUS GOODS

Certain dangerous goods, which are normally forbidden, may be specifically approved for air transport by the State of Origin and the State of the Operator:

- a) to transport dangerous goods forbidden on passenger and/or cargo aircraft where Special Provision A1/A2 applies; or
- b) for other purposes as specified in the ICAO Technical Instructions.
  - i. provided that in such instances an overall level of safety in transport which is at least equivalent to the level of safety provided for in these Instructions is achieved.
  - ii. In instances of extreme urgency or when other forms of transport are inappropriate or full compliance with the prescribed requirements is contrary to public interest, the States concerned may grant an exemption from the provisions of the Instructions provided that in such instances an overall level of safety in transport which is at least equivalent to the level of safety provided for in these Instructions is achieved. For the purpose of exemptions, "States concerned" are the States of Origin, Operator, transit, overflight and destination. For the State of overflight, if none of the criteria for granting an exemption are relevant, an

	TGM for DG approved Operator	Re-issue: 20 March 2023	Page 7 of 57
--	------------------------------	-------------------------	--------------

exemption may be granted based solely on whether it is believed that an equivalent level of safety in air transport has been achieved.

**Note:** Application for exemptions and approvals should be submitted to the SACAA Dangerous Goods section at least 30 days prior to the proposed flight date.

Dangerous goods carried in accordance with an exemption or special approval must comply with the conditions on the exemption or approval.

**Note 1:** The operator's procedure for ensuring relevant personnel is made aware of the details of short-term approvals and exemptions regarding the dangerous goods (e.g. through the issue of crew notices) should be described. The exemption or approval document copy of the dangerous goods carried under a specific exemption or approval must be carried on board the aircraft**GENERAL EXCEPTIONS** 

These Instructions do not apply to dangerous goods carried by an aircraft where the dangerous goods are:

- 1. to provide, during flight, medical aid to a patient or to preserve tissues or organs intended for use in transplantation when those dangerous goods:
  - a) have been placed on board with the approval of the operator; or
  - b) form part of the permanent equipment of the aircraft when it has been adapted for specialized use, providing that:
    - i. gas cylinders have been manufactured specifically for the purpose of containing and transporting that particular gas;
    - ii. equipment containing wet cell batteries is kept and, when necessary, secured in an upright position to prevent spillage of the electrolyte;
    - iii. spare lithium batteries are individually protected so as to prevent short circuits when not in use;
- 2. to provide, during flight, veterinary aid or a humane killer for an animal;
- 3. for dropping in connection with agricultural, horticultural, forestry, ice jam control, landslide clearance, pollution control activities or pest management activities;
- 4. for dropping or triggering in connection with avalanche control activities;
- 5. to provide, during flight, or related to the flight, aid in connection with search and rescue operations;
- 6. vehicles carried in aircraft designed or modified for vehicle ferry operations and all of the following requirements are met:
  - a) authorization has been given by the appropriate authorities of the States concerned, and such authorities have prescribed specific terms and conditions for the particular operator's operation;
  - b) vehicles are secured in an upright position;
  - c) fuel tanks are so filled as to prevent spillage of fuel during loading, unloading and transit; and
  - d) adequate ventilation rates are maintained in the aircraft compartment in which the vehicle is carried;
  - e) required for the propulsion of the means of transport or the operation of its specialized equipment during transport.
- 7. contained within items of excess baggage being sent as cargo provided that:
  - a) the excess baggage has been consigned as cargo by or on behalf of a passenger;
  - b) the dangerous goods may only be those that are permitted by and in accordance with Table 8-1of the Technical Instructions or IATA Table 2.3.A to be carried in checked baggage;
  - c) the excess baggage is marked with the words "Excess baggage consigned as cargo".

TGM for DG approved Operator	Re-issue: 20 March 2023	Page 9 of 57

- 8. The dangerous goods must be under the control of trained personnel during the time when they are in use on the aircraft.
- 9. Dangerous goods transported under 1, 2, 3, 4 and 5 may be carried on a flight made by the same aircraft before or after a flight for the purposes identified above, when it is impracticable to load or unload the dangerous goods immediately before or after the flight, subject to the following conditions:
  - a) the dangerous goods must be capable of withstanding the normal conditions of air transport;
  - b) the dangerous goods must be appropriately identified (e.g. by marking or labelling);
  - c) the dangerous goods may only be carried with the approval of the operator;
  - d) the dangerous goods must be inspected for damage or leakage prior to loading;
  - e) loading must be supervised by the operator;
  - f) the dangerous goods must be stowed and secured in the aircraft in a manner that will prevent any movement in flight which would change their orientation;
  - g) the pilot-in-command must be notified of the dangerous goods loaded on board the aircraft and their loading location. In the event of a crew change, this information must be passed to the next crew;
  - h) all personnel must be trained commensurate with the functions for which they are responsible;

## 10.1 Airworthiness and Operational Items

An approval is not required for dangerous goods which are required to be aboard the aircraft as:

- items for airworthiness or operating reasons or for the health of passengers or crew, such as batteries, fire extinguishers, first-aid kits, insecticides, air fresheners, life rafts, escape slides, lifesaving appliances, portable oxygen supplies, tritium signs, smoke hoods, passenger service units;
- b) aerosols, alcoholic beverages, perfumes, colognes, liquefied gas lighters and portable electronic devices containing lithium metal or lithium ion cells or batteries provided that the batteries meet the provisions applicable when carried by passengers and crew) carried aboard an aircraft by the operator for use or sale on the aircraft during the flight or series of flights, but excluding non-refillable gas lighters and those lighters liable to leak when exposed to reduced pressure; and
- c) dry ice intended for use in food and beverage service aboard the aircraft; and
- d) electronic devices such as electronic flight bags, personal entertainment devices, credit card readers, containing lithium metal or lithium ion cells or batteries and spare lithium batteries for such devices carried aboard an aircraft by the operator for use on the aircraft during the flight or series of flights, provided that the batteries meet the provisions applicable to the carriage of portable electronic devices containing lithium or lithium ion cells or batteries by passengers. Spare lithium batteries must be individually protected so as to prevent short circuits when not in use.

**Editorial Note 2:** Conditions for the carriage and use of these electronic devices and for the carriage of spare batteries must be provided in the operations manual and/or other appropriate manuals as will enable flight crew, cabin crew and other employees to carry out their responsibilities. Operators should either explain these conditions or specify that spares may not be carried.

TGM for DG approved Operator	Re-issue: 20 March 2023	Page 10 of 57

Note: Dangerous goods intended as replacements for those referred to in 10.1. a, b and c above may not be carried without the approval of the state of the operator and unless consigned and accepted for transport in accordance with the ICAO Technical Instructions.

## 10.2 Veterinary Aid

An approval is not required for dangerous goods which are carried for use in flight as veterinary aid or as a humane killer for an animal. Such dangerous goods must be stowed and secured during take-off and landing and at all other times when deemed necessary by the pilot-in-command. The dangerous goods must be under the control of trained personnel during the time when they are in use on the aircraft.

Dangerous goods may be carried on a flight made by the same aircraft before or after a flight for which they are required as veterinary aid or as a humane killer for an animal, (e.g. training flights and positioning flights prior to or after maintenance), when it is impracticable to load or unload the dangerous goods immediately before or after the flight, subject to the following conditions:

- a) the dangerous goods must be capable of withstanding the normal conditions of air transport;
- b) the dangerous goods must be appropriately identified (e.g. by marking or labelling);
- c) the dangerous goods may only be carried with the approval of the operator;
- d) the dangerous goods must be inspected for damage or leakage prior to loading;
- e) loading must be supervised by the operator;
- f) the dangerous goods must be stowed and secured in the aircraft in a manner that will prevent any movement in flight which would change their orientation;
- g) the pilot-in-command must be notified of the dangerous goods loaded on board the aircraft and their loading location. In the event of a crew change, this information must be passed to the next crew;
- h) all personnel must be trained commensurate with their responsibilities; and
- i) the provisions of 2.10.4 (Dangerous Goods Accident and Incident Reports) apply.

## 10.3 Medical Aid for a Patient

An approval is not required for dangerous goods which:

- a) are placed on board an aircraft with the approval of the operator; or
- b) form part of the permanent equipment of the aircraft when it has been adapted for specialised use, to provide, during flight, medical aid for a patient, such as gas cylinders, drugs, medicines, other medical material (e.g. sterilising wipes) and wet cell or lithium batteries, providing:
  - the gas cylinders have been manufactured specifically for the purpose of containing and transporting that particular gas;
  - ii) the drugs and medicines and other medical matter are under the control of trained personnel during the time when they are in use;
  - iii) the equipment containing wet cell batteries is kept, and when necessary secured, in an upright position to prevent spillage of the electrolyte; and

TGM for DG approved Operator	Re-issue: 20 March 2023	Page 11 of 57
1 Oil 101 BO approvou opolatoi	1 to 10000. Lo maron Lozo	1 490 11 01 01

iv) proper provision is made to stow and secure all the equipment during take-off and landing and at all other times when deemed necessary by the commander in the interests of safety.

These dangerous goods may also be carried on a flight made by the same aircraft to collect a patient or after that patient has been delivered (e.g. training flights and positioning flights prior to or after maintenance), when it is impracticable to load or unload the goods at the time of the flight on which the patient is carried.

**Note:** The dangerous goods carried may differ from those identified above due to the needs of the patient. These provisions apply both to dedicated air ambulances and to temporarily modified aircraft.

## 10.4 Dangerous goods carried in an aircraft where such goods are intended:

- a) for spraying, dusting or dropping in connection with agricultural, horticultural, forestry fire suppression or pollution control operations; or
- b) for dropping or triggering in connection with avalanche control activities;
- c) to provide, during flight or related to the flight, aid in connection with disaster management or search and rescue operations;

## 10. INSTRUCTIONS ON THE CARRIAGE OF EMPLOYEES OF THE OPERATOR

There is no restriction of the carriage of employees on an aircraft carrying dangerous goods which are permitted on a passenger aircraft, providing the requirements of the Technical Instructions are complied with. When an aircraft is carrying dangerous goods which can only be carried on a cargo aircraft, employees of the operator can also be carried provided they are in an official capacity. It is intended this be interpreted as meaning they have duties concerned with the preparation or undertaking of a flight or on the ground once the aircraft has landed, although not necessarily in connection with an aircraft.

## 11. ITEMS THAT MAY BE CARRIED BY PASSENGERS AND CREW

**Editorial Note 1:** International standards permit the carriage of the dangerous goods listed below by passengers or crew members either as or in carry-on baggage or checked baggage or on their person. Additional restrictions implemented by countries in the interests of aviation security may, however, limit or forbid the carriage of some of these items.

**Editorial Note 2:** Certain items listed are permitted only with the operator's approval. Requirements apply to some items regarding the means by which they are prepared for transport (e.g. wheelchairs and battery-powered mobility devices) or the professional status of the passenger (e.g. Chemical Agent Monitoring Equipment). The operator's policy towards the carriage of items listed as requiring operator's approval should be established. This should include details of how passengers are expected to declare their intention to carry an item, how its proper preparation will be confirmed and how details will be passed to ground handlers (as required). If case-by-case consideration is considered appropriate for items requiring operator approval, the person or role within the operation that may grant approval for the carriage of such items and the basis upon which approvals will be granted should be stated.

TGM for DG approved Operator	Re-issue: 20 March 2023	Page 12 of 57

Note: Should it be necessary to transfer carry-on baggage to the hold (e.g. due to the size of the baggage preventing proper stowage in the cabin) it is necessary for cabin crew to verify that the baggage contains no dangerous goods that are permitted for carriage in carry-on baggage only (e.g. spare lithium batteries, heat producing articles etc).

An approval is not required for those dangerous goods which, according to the Technical Instructions, can be carried by passengers or crew members as per the table:

**Editorial note 2**: the latest Table 8-1of the Technical Instructions or the latest Table 2.3.A of the IATA Dangerous Goods Regulations manual must be provided as the addendum to the operations manual.

## 12. CARRIAGE OF COMPANY MATERIAL (COMAT)

The Operators aircraft components and or consumable materials (e.g. aircraft spares) classified as dangerous goods must be transported in accordance with the provisions of the Technical Instructions.

#### 13. DESIGNATED OFFICIAL

The person **whose** name appears below has been appointed by the organization as the Management Representative responsible for the implementation, monitoring and supervision of the aviation safety controls prescribed by Part 92 of the South African Civil Aviation Regulations.

Communication between the SACAA and Company name (Pty) Ltd should be directed to this official. This official is senior enough in the organization, as can be seen in Appendix A, to affect any directives which might be necessary in the interest of aviation security for dangerous goods. He/She has the necessary experience and qualifications for this responsibility.

Name:

Title: Designated Dangerous Goods Official

Cell: Landline: E-mail:

## 1. Duties of the Designated Dangerous Goods Official

Duties should cover the roles outlined in the designation regulation as follows:

Each operator, ramp handling organisation, ground handling organisation and aerodrome manager shall designate a dangerous goods person who shall be responsible for the following matters involving dangerous goods—

- a) Compliance with the regulations;
- b) Quality control:
- c) Reporting of accidents and incidents;
- d) Maintenance of dangerous goods incidents and accidents records.

Additional responsibilities may include the following:

- a) The development, amendment and implementation of the overall dangerous goods operations Manual for <u>the operator or dangerous goods procedures manual for the Shipper, airport, Freight Forwarder, packer or Cargo Operator.</u> Choose applicable
- b) The development and promulgation of companywide Dangerous Goods safety standards and practices to ensure compliance with Part 92 regulation.
- c) Establishing and maintaining effective liaison with the SACAA, airport authorities as well as other government and law enforcement agencies.
- d) Ensuring that effective risk assessment and analysis are conducted regularly and that there is sufficient response capability in case of incidents and accidents.
- e) Ensuring understanding of legislation and regulations relating to Dangerous Goods throughout the organisation.
- f) Providing specialized advice to line management in all aviation safety functions regarding dangerous goods.
- g) Ensuring all staff dealing with dangerous goods and related documentation are trained and proper control of training records are established and maintained.
- h) Ensuring appointment of suitably qualified persons as dangerous goods officials in the respective branches of *(Company name)* (*Pty) Ltd* in a case where multiple branches exist.

Note: the incumbent must accept the duties and responsibilities mentioned above by signing the appointment document named "APPOINTMENT LETTER: PERSON RESPONSIBLE FOR DANGEROUS GOODS", as attached as Appendix A

## 2. Qualifications requirement

The organisation must ensure that the appointed individual has the necessary experience and meets the minimum requirements for a designated dangerous goods person in terms of the regulations. The regulations stipulates that the minimum shall be the following—

- a) the successful completion of a Group A based dangerous goods advanced training based on the competency-based training framework from an approved ATO; and
- b) Risk management or safety management qualification.

Note: the curriculum vitae and the above qualifications must accompany the appointment letter and only the qualification certificates must be part of the manual as appendix B

Page 14 of 57

## 14. PROVISION OF INFORMATION TO PASSENGERS

- 1. Operators must inform passengers about dangerous goods that passengers are forbidden to transport aboard an aircraft. The notification system must ensure that where the ticket purchase and/or boarding pass issuance can be completed by a passenger without the involvement of another person, the system must include an acknowledgement by the passenger that they have been presented with the information. The information must be provided to passengers:
  - a) at the point of ticket purchase or, if this is not practical, made available in another manner to passengers prior to boarding pass issuance; and
  - b) at boarding pass issuance, or when no boarding pass is issued, prior to boarding the aircraft.
- 2. The information may be provided in text or pictorial form, electronically, or verbally, as described in the operator's manuals.
- 3. An operator or the operator's handling agent and the airport operator must ensure that information on the types of dangerous goods which are forbidden to transport aboard an aircraft is communicated effectively to passengers. This information must be presented at each of the places at an airport where tickets are issued, passengers are checked in, passenger baggage claim areas and aircraft boarding areas are maintained, and at any other location where passengers are issued boarding passes and/or checked baggage is accepted. This information must include visual examples of dangerous goods forbidden from transport aboard an aircraft.
- 4. An operator, of passenger aircraft, should have information on those dangerous goods which may be carried by passengers made available prior to the boarding pass issuance process on their websites or other sources of information.
- 5. When provision is made for the check-in process to be completed remotely (e.g. via the Internet), the operator must ensure that information on the types of dangerous goods which a passenger is forbidden to transport aboard an aircraft is presented to passengers. Information may be in text or pictorial form but must be such that the check-in process cannot be completed until the passenger, or a person acting on their behalf, has been presented with this information and indicated that they have understood the restrictions on dangerous goods in baggage.
- 6. When provision is made for the check-in process to be completed at an airport by a passenger without the involvement of any other person (e.g. automated check-in facility), the operator or the airport operator must ensure that information on the types of dangerous goods which a passenger is forbidden to transport aboard an aircraft is presented to passengers. Information must be in pictorial form and must be such that the check-in process cannot be completed until the passenger has been presented with this information and indicated that they have understood the restrictions on dangerous goods in baggage.
- 7. The required dangerous goods notices shall be properly displayed at the cargo acceptance points where cargo and dangerous goods are handled.

#### 15. INFORMATION TO OTHER PERSONS

1. With the aim of preventing undeclared dangerous goods from being loaded on an aircraft and of preventing passengers from taking on board those dangerous goods which they are not permitted to have in their baggage, information about:

- a) general descriptions that are often used for items in cargo or in passengers' baggage which may contain dangerous goods;
- b) other indications that dangerous goods may be present (e.g. labels, markings); and
- c) those dangerous goods which may be carried by passengers in accordance with Table 8-1, must be provided to cargo reservations and sales staff, cargo acceptance staff, passenger reservations and sales staff and passenger check-in staff as appropriate and must be readily available to such staff.
- 2. An operator shall provide such information in the operations manual and/or other appropriate manuals as will enable flight crews and other employees to carry out their responsibilities with regard to the transport of dangerous goods. This information must include instructions as to the action to be taken in the event of emergencies involving dangerous goods, and details of the location and numbering system of cargo compartments together with:
- a) the maximum quantity of dry ice permitted in each compartment; and
- b) if radioactive material is to be carried, instructions on the loading of such dangerous goods
- 3. Where applicable, this information must also be provided to ground handling agents

## 16. MARKING AND LABELLING OF PACKAGE

## 17.1 Marking

1. Articles and substances meeting the dangerous goods classification criteria are assigned a 'UN Number' under the United Nations classification system. This consists a four-digit number preceded by the capital letters 'UN'. Packages of dangerous goods must be marked with the UN Number(s) applicable to their contents.

Packages containing dangerous goods can also be identified by labels indicating the hazard of the goods by their class or division or by the presence of certain handling labels/markings.

Note: When dangerous goods mark or labels are seen on items not declared as dangerous goods, it is often an indication that they do contain such goods. Undeclared dangerous goods must not be loaded on an aircraft and reporting procedures must be implemented.

- 2. During the course of air transport, including storage, dangerous goods marks must not be covered or obscured by any part of or attachment to the packaging or any other label or marking.
- 3. All package markings shall:
  - a) Be durable and printed or otherwise marked on, or affixed to, the external surface of the package
  - b) Be readily visible and legible
  - c) Be able to withstand open weather exposure without a substantial reduction in effectiveness
  - d) Be displayed on background of contrasting colour; and
  - e) Not be located with other package markings that could substantially reduce their effectiveness.

TGM for DG approved Operator	Re-issue: 20 March 2023	Page 16 of 57
TOM 101 BO approvou operator	1 to 10000. Lo maron Lozo	1 490 10 01 01

## 17.2 Prohibited marking

Arrows for purposes other than indicating proper package orientation shall not be displayed on a package containing liquid dangerous goods.

## 17.3 Labelling

## 17.3.1 Requirements for labelling

- a) Where articles or substances are specifically listed in the dangerous goods table, a danger class label shall be affixed for the hazard shown
- b) Labels identifying the primary risk of the dangerous goods shall bear the class or division number as required
- c) All labels shall be able to withstand weather exposure without a substantial reduction in effectiveness.

## 17.3.2 Application of labels

- a) The labels required to be displayed on packages of dangerous goods are identified in the dangerous goods list for articles and substances specifically listed by name and for articles and substances not specifically by name which ae covered by generic n.o.s entries
- b) In addition to primary hazard label, infectious substances packages shall bear any other label required by the nature of the contents. This is not required if a 30 ml or less of dangerous goods included in class 3 or 9 is packed in each primary receptacle containing infectious substances.
- c) Intermediate bulk containers shall comply with the labelling requirements applicable to other packagings, except that intermediate bulk containers of more than 450 L capacity shall be labelled on two opposite sides.

## 17.3.3 Each class hazard label shall:

- a) Be affixed to a background of contrasting colour or shall have a dotted or solid outer boundary
- b) Be located on the same surface of the package near the proper shipping name marking, if the package dimensions are adequate.
- c) Be so placed on the packaging that they are not covered or obscured by any part or attachment to the packaging or any other label or marking
- d) When primary and subsidiary risk labels are required, be displayed next to each other; and
- e) Be affixed at an angle of 45 degree (diamond shape), unless the package dimensions are inadequate.

- **17.3.4** Labels shall not be folded. Cylindrical packages shall be such dimensions that a label will not overlap itself.
  - 17.3.5 Labels shall be firmly affixed to or printed on the package of dangerous goods. Where a package is of such irregular shape that a label cannot be affixed to or printed on a surface, it is acceptable to attach the label to the package by an adequately strong tag.

## 17. CLASSIFICATION

Dangerous Goods are defined as those goods which meet the criteria of one or more of 9 UN Hazard Classes and where applicable, to one of 3 UN Packing Groups. The 9 Classes relate to the type of hazard. Some Dangerous Goods classes are further subdivided into divisions. Some articles or substances may have more than one hazard to indicate the various hazardous characteristics.

Dangerous Goods are assigned to the relevant Packing Group according to the degree of Danger they present as follows:

- a) Packing Group I High Danger
- b) Packing Group II- Medium Danger
- c) Packing Group III- Low Danger

NOTE: It is the Shipper's responsibility to identify and classify all Dangerous Goods intended for transport by road and air in compliance with regulations

## **CLASS 1 – EXPLOSIVE**

Class 1 (with exploding bomb symbol) – explosives generally not permitted on an aircraft.

Class 1 (without exploding bomb symbol) – explosives usually permitted on an aircraft.



 Division and compatibility group



\*\* Compatibility group

## **CLASS 2 – GASES**

Flammable gas (Division 2.1)

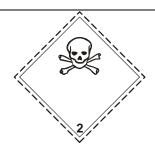
Non-flammable, non-toxic gas (Division 2.2)

Toxic gas (Division 2.3)

TGM for DG approved Operator	Re-issue: 20 March 2023	Page 18 of 57
------------------------------	-------------------------	---------------







## **CLASS 3 – FLAMMABLE LIQUID**



# CLASS 4 - FLAMMABLE SOLIDS; SUBSTANCES LIABLE TO SPONTANEOUS COMBUSTION; SUBSTANCES WHICH, IN CONTACT WITH WATER, EMIT FLAMMABLE GASES

Flammable solid (Division 4.1)

Substance liable to spontaneous combustion (Division 4.2)

Substance which, in contact with water, emits flammable gas (Division 4.3)







## **CLASS 5 – OXIDISING SUBSTANCES AND ORGANIC PEROXIDES**

Oxidising substance Organic peroxide (Division 5.2) (flame may be black or white)

TGM for DG approved Operator	Re-issue: 20 March 2023	Page 19 of 57
------------------------------	-------------------------	---------------

(Division 5.1)







## **CLASS 6 – TOXIC AND INFECTIOUS SUBSTANCES**

Toxic substance (Division 6.1)

Infectious substance (Division 6.2)





The bottom part of the label should bear the inscription:

"INFECTIOUS SUBSTANCE — In case of damage or leakage immediately notify public health authority".

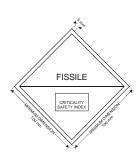
## **CLASS 7 – RADIOACTIVE MATERIAL**

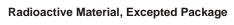






Criticality safety index label





This package contains radioactive material, excepted package and is in all respects in compliance with the applicable international and national governmental regulations.

UN

## CLASS 8 – CORROSIVE



## CLASS 9 - MISCELLANEOUS

Class 9 label for Section IA and IB lithium battery shipments

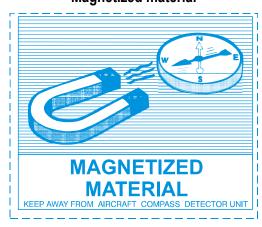




## HANDLING LABELS

Packages of dangerous goods may also bear labels providing handling information; these are:

## **Magnetized material**



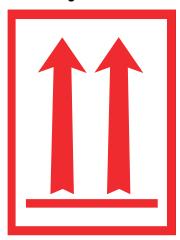
## Cargo aircraft only



## Cryogenic liquid label



## Package orientation



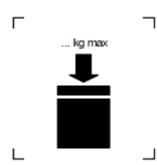
## Keep away from heat



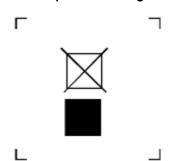
(red or black)

**Intermediate Bulk Containers (IBCs)** are only permitted for the transport of UN 3077 Environmentally hazardous substance, solid, n.o.s. The maximum permitted stacking load applicable when the IBC is in use must be displayed on a symbol as follows:

## IBCs capable of being stacked



## IBCs NOT capable of being stacked



## **LITHIUM BATTERIES MARK**

## Lithium Battery



- Place for UN Number(s)
- \*\* Place for telephone number for additional information

Application of the lithium battery mark to a consignment of lithium batteries (of any type) indicates that the Shipper has determined specific requirements have been met. Such consignments do not need to be accompanied by a dangerous goods transport document (Shipper's Declaration) and no acceptance check is required. Consignments bearing the lithium battery label must be accompanied with a document such as an air waybill with an indication that:

- the package contains lithium metal cells or batteries;
- the package must be handled with care and that a flammability hazard exists if the package is damaged;
- special procedures should be followed in the event the



- package is damaged, to include inspection and repacking if necessary;
- a telephone number for additional information; and
- when an air waybill is issued the applicable Packing Instruction must be stated together with the words 'not restricted'; and 'lithium ion batteries' or 'lithium metal batteries' as applicable.

## **EXCEPTED QUANTITIES MARK**

Packages containing excepted quantities of dangerous goods can be identified from the following:



Hatching and symbol of the same colour, black or red, on white or suitable contrasting background.

- \* Place for class or, when assigned, the division number(s).
- \*\* Place for name of shipper or consignee, if not shown elsewhere on the package.

## **LIMITED QUANTITIES MARK**

Packages containing limited quantities of dangerous goods can be identified from the following:



Many dangerous goods when in reasonably limited quantities present a reduced hazard during transport and can safely be carried in good quality packagings that have not been tested and marked as is required for UN Specification packagings required for larger quantities of dangerous goods. Packages containing limited quantities of dangerous goods must be marked with a diamond shaped mark. When presented for carriage by air, the mark must additionally include a "Y" which indicates compliance with the provisions of the ICAO Technical Instructions, some of which are more stringent than those of the UN Model Regulations and of other modes of transport.

**NOTE:** The mark depicted here but without the 'Y' indicates that the package contains dangerous goods in limited quantities as permitted by

surface transport regulations (ADR/IMDG) which may not be acceptable for air transport. A package so marked and offered for transport in the absence of a dangerous goods transport document must be reported to the appropriate authority where the goods are discovered as a discovery of undeclared dangerous goods.

## **ENVIRONMENTALLY HAZARDOUS SUBSTANCES MARK**



Packages containing environmentally hazardous substances (UN Nos. 3077 and 3082) must be durably marked with the environmentally hazardous substance mark with the exception of single packagings and combination packagings containing inner packagings with contents of 5 L or less for liquids; or contents of 5 kg or less for solids. ALL packages containing environmentally hazardous substances must bear a Class 9 hazard label.

## 18. Duties of All Personnel Involved

## 1. Detailed Assignments of Responsibilities

**Editorial Note 1:** Operators need to assign the key responsibilities associated with the carriage of dangerous goods. For example, it may be intended for acceptance checks of consignments of dangerous goods cargo to be conducted by suitably trained ground staff of the operator or alternatively by a designated handling agent. Duties associated with the carriage of dangerous goods include:

Person Nominated as Responsible for Operator's Dangerous goods Approval	<ul> <li>Oversight and control of the carriage of dangerous goods.</li> <li>Ensuring all necessary permissions, approvals and exemptions are held.</li> <li>Generation (or acceptance) of relevant procedures.</li> <li>Responding to queries regarding the carriage of dangerous goods.</li> </ul>
Cargo Department/ Cargo Sales Agents	<ul> <li>Arrangement of the carriage of dangerous goods only in accordance with the operator's stated policies.</li> <li>Recognition of undeclared dangerous goods.</li> </ul>
Persons receiving or handling general cargo, mail and stores	<ul> <li>Recognition of undeclared dangerous goods.</li> <li>Dealing with dangerous goods that are found damaged or leaking during processing for transport.</li> <li>If there is a dangerous goods incident or accident, or if undeclared dangerous goods are detected, a report is made to the appropriate Authority.</li> </ul>

Persons receiving	Acceptance procedures for dangerous goods are carried out
or handling	as required by the Technical Instructions.
dangerous goods	<ul> <li>Inspection procedures during the processing of dangerous goods for transport are carried out as required by the Technical Instructions.</li> </ul>
	<ul> <li>Dealing with dangerous goods that are found damaged or leaking during processing for transport.</li> </ul>
	<ul> <li>Dangerous goods are loaded, segregated, stowed and secured on an aircraft in accordance with the Technical Instructions.</li> </ul>
	Generation of written information to the commander (NOTOC).
	<ul> <li>Provision of written information about dangerous goods loaded on board to the commander for signature.</li> </ul>
	Retention of documentation on the ground.
	Recognition of undeclared dangerous goods.
	<ul> <li>If there is a dangerous goods incident or accident, or if undeclared dangerous goods are detected, a report is made to the appropriate Authority.</li> </ul>
Reservations	<ul> <li>Ensuring that information is provided with the passenger ticket or in another manner such that prior to or during the check-in process the passenger receives the information.</li> </ul>
	<ul> <li>Considering passenger requests for approval of the operator for items of dangerous goods requiring such approval.</li> </ul>
Persons handling passengers	Ensuring that the provisions concerning passengers and dangerous goods are complied with.
	<ul> <li>Ensuring that notices are displayed in sufficient number and prominence at each of the places at an airport where tickets are issued, passengers checked in and aircraft boarding areas maintained, and at any other location where passengers are checked in.</li> </ul>
	<ul> <li>With the aim of preventing dangerous goods which passengers are not permitted to have from being taken on board an aircraft in their baggage, seeking confirmation from a passenger about the contents of any item where there are suspicions that it may contain dangerous goods.</li> </ul>
	<ul> <li>Ensuring that the discovery of prohibited dangerous goods (after a passenger has checked in) is reported to the appropriate Authority.</li> </ul>

Cabin Crew	<ul> <li>Ensuring that the provisions concerning passengers and dangerous goods are complied with.</li> </ul>
	<ul> <li>Responding to a dangerous goods incident or accident in the cabin.</li> </ul>
	<ul> <li>Ensuring that a dangerous goods incident or accident in the cabin, or the discovery of prohibited dangerous goods (after a passenger has boarded), is reported to the appropriate Authority.</li> </ul>
Operations Personnel	<ul> <li>If there is an aircraft incident or accident, information is passed to emergency services and state Authorities as required by the Technical Instructions.</li> </ul>
	<ul> <li>If there is a dangerous goods incident or accident, or if undeclared dangerous goods are detected a report is made to the appropriate Authority.</li> </ul>
Flight Crew	<ul> <li>Signature of NOTOC to indicate receipt of information.</li> </ul>
	<ul> <li>If an in-flight emergency occurs, as soon as the situation permits, passage of details of dangerous goods on board to the appropriate Air Traffic Services Unit.</li> </ul>
Trainers	<ul> <li>Provision of initial and recurrent dangerous goods training commensurate with the responsibilities of the personnel concerned.</li> </ul>
Compliance Monitoring Manager, Auditors and Safety	<ul> <li>Ensuring that activities are monitored for compliance with dangerous goods requirements and that these activities are carried out properly under the supervision of the relevant head of functional area.</li> </ul>
Manager	<ul> <li>Ensuring the initiation and follow-up of internal occurrence / accident investigations.</li> </ul>
Quality Auditors	<ul> <li>Establishment and maintenance of Quality System to monitor compliance to Dangerous Goods procedures, regulations and provision of Dangerous Goods training.</li> </ul>
	<ul> <li>Collation and assessment of details relating to Dangerous Goods incidents, accidents, mis-declared, undeclared Dangerous Goods within the flight Safety programme.</li> </ul>

**Editorial Note 2:** In practice a ground handling agent may carry out some or all of the procedures for processing dangerous goods cargo for air transport. A ground handling agent must be provided with sufficient information to enable these procedures to be actioned. Operators should specify whether they utilise suitably qualified personnel of the operator or of a handling agent at the various aerodromes of the operation.

2. The information on the table above must, for the purpose of alignment with the competency-based training requirement, be further analysed to fit in with the information required to develop suitable training programmes (see 29. Training Programmes)

TGM for DG approved Operator	Re-issue: 20 March 2023	Page 26 of 57
------------------------------	-------------------------	---------------

## 19. GUIDANCE ON THE REQUIREMENTS FOR ACCEPTANCE, HANDLING AND STOWAGE

## 1. Acceptance Procedures

The acceptance personnel of an operator shall be adequately trained to assist them in identifying and detecting dangerous goods presented as general cargo. The cargo acceptance staff should seek confirmation from shippers about the contents of any item of cargo where there are suspicions that it may contain dangerous goods, with the aim of preventing undeclared dangerous goods from being loaded on an aircraft as general cargo.

Before a consignment consisting of a package or overpack containing dangerous goods, a freight container containing radioactive material or a unit load device containing dangerous goods is first accepted for carriage by air, the operator must, by use of a Dangerous Goods acceptance checklist, verify the following:

- a) the documentation or, when provided, the electronic data is compliant with the applicable requirements;
- b) the quantity of dangerous goods stated on the dangerous goods transport document is within the limits per package on a passenger or cargo aircraft as appropriate;
- c) the marking of the package, overpack or freight container accords with the details stated on the accompanying dangerous goods transport document and is clearly visible;
- d) where required, the letter in the packaging specification marking designating the packing group for which the
  design type has been successfully tested is appropriate for the dangerous goods contained within. This does
  not apply to overpacks where the specification marking is not visible;
- e) proper shipping names, UN numbers, labels, and special handling instructions appearing on the interior package(s) are clearly visible or reproduced on the outside of an overpack;
- f) the labelling of the package, overpack or freight container is as required for the consignment;
- g) the outer packaging of a combination package or the single packaging is permitted by the applicable packing instruction, and when visible is of the type stated on the accompanying dangerous goods transport document and is permitted by the applicable packing instruction;
- h) the package or overpack does not contain different dangerous goods which require segregation from each other:
- i) the package, overpack, freight container or Unit Load Device (ULD) is not leaking and there is no indication that its integrity has been compromised; and
- j) the operator must be able to identify the person who performed the acceptance check. Where packages are contained in an overpack, the checklist should establish the correct marking and labelling of such an overpack or other type of pallet and not the individual packages contained in them.
  - **Note 1:** An acceptance check is not required for dangerous goods in excepted quantities, radioactive material in excepted packages and lithium batteries consigned in accordance with Section II of the applicable packing instruction.
  - **Note 2:** Persons conducting dangerous goods acceptance checks must have received dangerous goods training commensurate with this responsibility. Acceptance checks conducted in the South Africa must only be conducted by a person who has successfully completed training applicable to this role from a SACAA Approved Dangerous Goods Training Organisation.

## 2. Inspections for Damage or Leakage

TGM for DG approved Operator	Re-issue: 20 March 2023	Page 27 of 57
------------------------------	-------------------------	---------------

A package or overpack containing dangerous goods must not be loaded onto an aircraft or into a ULD unless it has been inspected immediately prior to loading and found free from evidence of leakage or damage. A ULD must not be loaded aboard an aircraft unless the device has been inspected and found free from any evidence of leakage from or damage to any dangerous goods contained therein. Packages or overpacks containing dangerous goods must be inspected for signs of damage or leakage upon unloading from the aircraft or ULD.

If any person responsible for the carriage of packages containing infectious substances becomes aware of damage to or leakage from such a package, that person shall:

- a) Avoid handling the package or keep handling to a minimum
- b) Inspect adjacent packages for contamination and put aside any that may have been contaminated
- c) Inform the appropriate public health authority or veterinary authority and provide information on any other countries of transit where persons may have been exposed to danger
- d) Notify the shipper and /or the consignee.

## 3. Prohibition on the Carriage of Dangerous Goods Within a Cabin Occupied by Passengers

Dangerous goods must not be carried in the cabin of an aircraft occupied by passengers or on the flight deck, except as provided for in the Technical Instructions.

## 4. Prohibition on the Carriage of Passengers with 'Cargo Aircraft Only' Dangerous Goods

Dangerous goods identified as suitable for transport only on a cargo aircraft must not be carried on an aircraft on which passengers are being carried. In this context "passenger" excludes a crew member, an operator's employee, an authorised representative of an Authority and a person with duties in respect of a particular shipment of dangerous goods or other cargo on board.

## 5. Segregation and Separation

Dangerous goods must be loaded, stowed, and secured on an aircraft as required by the Technical Instructions. This includes segregating packages from each other when they contain incompatible dangerous goods, the separation of explosives of different division numbers and compatibility groups (when required), securing packages in a manner that will prevent any movement, and on a cargo, aircraft loading certain packages, so they are accessible in flight unless loaded in a Class C cargo compartment, or a ULD of the same specification. Packages of dangerous goods must also be protected so they cannot be damaged by the movement of baggage, mail, stores or other cargo.

**Editorial Note:** Operators holding approval for the carriage of dangerous goods should determine how such goods shall be secured to prevent movement in flight, to protect from damage by the movement of other items and to achieve adequate segregation whilst maintaining accessibility (if required), taking into account the types of aircraft operated, whether ULDs are used, etc. Additionally, it is appropriate to amend the following tables to reflect the operator's policy towards the separation of dangerous goods from other cargo.

Operators shall specify the types of cargo compartments of which DG shall be loaded to ensure proper separation from other special cargo.

TGM for DG approved Operator	Re-issue: 20 March 2023	Page 28 of 57
------------------------------	-------------------------	---------------

## Segregation of incompatible dangerous goods

		Class or Division							
Hazard Label	1	2	3	4.2	4.3	5.1	5.2	6	8
1	Note 1	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2		Note 2
2	Note 2								
3	Note 2					Х			
4.2	Note 2					Х			
4.3	Note 2								Х
5.1	Note 2		Х	Х					
5.2	Note 2								
6									
8	Note 2				Х				

An "X" at the intersection of a row and column indicates that packages containing these classes of dangerous goods may not be stowed next to or in contact with each other, or in a position which would allow interaction in the event of leakage of the contents. Thus, a package containing Class 3 dangerous goods may not be stowed next to or in contact with a package containing Division 5.1 dangerous goods. Packages containing dangerous goods with multiple hazards in the class or divisions which require segregation in accordance with the above table need not be segregated from other packages bearing the same UN number.

**Note 1:** See the table below detailing the separation of explosive substances and articles.

**Note 2:** This class or division must not be stowed together with explosives other than those in Division 1.4, Compatibility Group S.

**Editorial Note:** Class 1 dangerous goods other than Division 1.4S may only be carried on cargo aircraft. Operators not operating cargo aircraft should (a) delete the table explaining the separation of explosive substances and articles (below) and (b) amend Note 1 to the segregation table (above) to read 'Only Division 1.4S is permitted for carriage on passenger aircraft'.

TGM for DG approved Operator	Re-issue: 20 March 2023	Page 29 of 57
------------------------------	-------------------------	---------------

## Separation of explosive substances and articles

Division and Compatibility Group	1.3C	1.3G	1.4B	1.4C	1.4D	1.4E	1.4G	1.4S
1.3C			Х					
1.3G			Х					
1.4B	Χ	Χ		Х	Χ	Χ	Х	
1.4C			Χ					
1.4D			Χ					
1.4E			Χ					
1.4G			Х					
1.4S								

An "X" at the intersection of a row and column indicates that explosives of these divisions and compatibility groups must be loaded into separate unit load devices and, when stowed aboard the aircraft, the unit load devices must be separated by other cargo with a minimum separation distance of 2 m. When not loaded in a unit load device, these explosives must be loaded into different, non-adjacent loading positions and separated by other cargo with a minimum separation distance of 2 m. Explosive substances and articles carried under an exemption may be subject to additional separation requirements.

## 6. Loading of Dry Ice

Dry ice (Carbon dioxide, solid; UN1845) may be carried onboard aircraft to keep food (galley or cargo) and medicine or biological materials (as cargo) in a frozen or chilled condition. Carbon dioxide gas produced by the sublimation of dry ice is an asphyxiant and will reduce the amount of available oxygen to breathe. Dry ice sublimation producing excess CO<sub>2</sub> gas may be dangerous in confined spaces where there is an absence of ventilation or ventilation rates are low. The signs and symptoms of CO<sub>2</sub> poisoning are similar to those that precede lack of oxygen, namely headache, dizziness, muscular weakness, drowsiness, and ringing in the ears. CO<sub>2</sub> poisoning does have a greater effect on breathing than simple lack of oxygen, causing a significant increase in the rate and depth of breathing as an early symptom. 10% carbon dioxide in air can be endured for only a few minutes whereas 12% to 15% would cause unconsciousness.

## Ground staff must be informed that dry ice is being loaded or is onboard the aircraft.

**Editorial Note:** Dry ice when shipped by itself or when used as a refrigerant for other commodities may be carried provided the operator has made suitable arrangements dependent on the aircraft type, the aircraft ventilation rates, the method of packing and stowing, whether animals will be carried on the same flight and other factors. To prevent the incapacitation of ground and aircrew, aircraft operators must specify maximum safe quantities of dry ice per compartment of the various aircraft types operated in accordance with the above criterion and information published by the applicable aircraft manufacturer(s).

TGM for DG approved Operator	Re-issue: 20 March 2023	Page 30 of 57
------------------------------	-------------------------	---------------

## 7. Loading of Magnetised Material

Packing Instruction 953 allows the carriage of such material when the magnetic field strength at a distance of 4.6 m causes a compass deflection of not more than 2 degrees (equivalent to 0.418 A/m or 0.00525 Gauss measured at a distance of 4.6 m). Material with a magnetic field strength exceeding these limits may only be carried with the prior approval of the State of Origin and the State of the Operator.

Magnetised material must be loaded so headings of aircraft compasses are maintained within the tolerances prescribed by the applicable aircraft airworthiness requirements and, where practical, in locations minimising possible effects on compasses.

**Note:** Masses of ferromagnetic metals such as automobiles, automobile parts, metal fencing, piping and metal construction material, even if not meeting the definition of magnetised materials, may affect aircraft compasses. As may packages or items of material which individually do not meet the definition of magnetised material, but cumulatively may have a magnetic field strength of a magnetised material.

**Editorial Note:** Operators should consider whether consignments of large quantities of ferromagnetic metals should be stowed as if they were classified as magnetised material. Operators, particularly of small aircraft, must establish adequate procedures to ensure that consignments described above are identified and loaded in a manner that will not affect aircraft instruments.

## 8. Loading of Radioactive Material

**Editorial Note 1:** Should there exist a policy not to carry radioactive material (stated within 9.1.1) this section may be omitted.

Radioactive materials are articles or substances which spontaneously and continuously emit ionising radiation, which can be harmful to the health of humans and animals and can affect photographic or X-Ray film. Whilst packagings used for the transport of radioactive material must provide protection from radiation, there is likely to be residual activity from packages offered for air transport.

A Transport Index (TI) is a number which represents the level of radiation at a distance of 1 metre, assigned to a single package, overpack or freight container. The TI is used to provide control over radiation exposure, to determine categories of radioactive material for the purposes of labelling, declaration, etc., to determine whether transport under exclusive use is required and to determine spacing requirements during storage and transport. The TI for each overpack or freight container must be determined as either the sum of the transport indices of all the packages contained, or by direct measurement of radiation level.

## Separation From Persons

Categories II — Yellow and III — Yellow packages, overpacks or freight containers must be separated from persons. The minimum separation distances in the following table that are to be applied are based upon the sum of TIs and these distances are from the surface of the packages, overpacks or freight containers to the nearest inside surface of the passenger cabin or flight deck partitions or floors, irrespective of the duration of the carriage of the radioactive material. If the packages, overpacks or freight containers are separated into groups, the minimum distance from the nearest inside surface of the passenger cabin or flight deck partitions or floors to each group is the distance applicable to the sum of the TIs within the individual groups, provided that each group is separated from each other group by at least three times the distance applicable to the one that has the larger sum of TIs. Alternative separation distances apply when radioactive material is being carried by a cargo aircraft and in those circumstances the minimum distances must be applied as above and also to any other areas occupied by

TGM for DG approved Operator	Re-issue: 20 March 2023	Page 31 of 57
TOM 101 BO approvou operator	1 to 10000. Lo maron Lozo	1 490 01 01 01

persons. Whether carried on a passenger or cargo aircraft, in accordance with the practice of keeping exposure to radiation as low as reasonably achievable, separation distances should be extended whenever feasible.

Passenger or Cargo	Aircraft	Cargo Aircraft Only	
Total sum of	Minimum distance	Total sum of	Minimum distance
transport indexes	(metres)	transport indexes	(metres)
0.1 – 1.0	0.30	50.1 – 60.0	4.65
1.1 – 2.0	0.50	60.1 – 70.0	5.05
2.1 – 3.0	0.70	70.1 – 80.0	5.45
3.1 – 4.0	0.85	80.1 – 90.0	5.80
4.1 – 5.0	1.00	90.1 – 100.0	6.10
5.1 – 6.0	1.15	100.1 – 110.0	6.45
6.1 – 7.0	1.30	110.1 – 120.0	6.70
7.1 – 8.0	1.45	120.1 – 130.0	7.00
8.1 – 9.0	1.55	130.1 – 140.0	7.30
9.1 – 10.0	1.65	140.1 – 150.0	7.55
10.1 – 11.0	1.75	150.1 – 160.0	7.80
11.1 – 12.0	1.85	160.1 – 170.0	8.05
12.1 – 13.0	1.95	170.1 – 180.0	8.30
13.1 – 14.0	2.05	180.1 – 190.0	8.55
14.1 – 15.0	2.15	190.1 – 200.0	8.75
15.1 – 16.0	2.25	200.1 – 210.0	9.00
16.1 – 17.0	2.35	210.1 – 220.0	9.20
17.1 – 18.0	2.45	220.1 – 230.0	9.40
18.1 – 20.0	2.60	230.1 – 240.0	9.65
20.1 – 25.0	2.90	240.1 – 250.0	9.85
25.1 – 30.0	3.20	250.1 – 260.0	10.05
30.1 – 35.0	3.50	260.1 – 270.0	10.25
35.1 – 40.0	3.75	270.1 – 280.0	10.40
40.1 – 45.0	4.00	280.1 – 290.0	10.60
45.1 – 50.0	4.25	290.1 – 300.0	10.80

## Separation From Live Animals

Categories II — Yellow and III — Yellow packages, overpacks or freight containers must be separated from live animals by a distance of at least 0.5 metres for journeys not exceeding 24 hours, and by a distance of at least 1.0 metres for journeys longer than 24 hours.

## Separation From Undeveloped Photographic Film

Categories II — Yellow and III — Yellow packages, overpacks or freight containers must be separated from undeveloped photographic films or plates. The minimum separation distances to be applied from the surface of the packages, overpacks or freight containers to the surface of the packages of undeveloped photographic films or plates are as follows:

TGM for DG approved Operator	Re-issue: 20 March 2023	Page 32 of 57
------------------------------	-------------------------	---------------

	Duration of carriage					
Total sum of transport indexes	2 hours or less	2-4 hours	4-8 hours	8-12 hours	12-24 hours	24-48 hours
1	0.4	0.6	0.9	1.1	1.5	2.2
2	0.6	0.8	1.2	1.5	2.2	3.1
3	0.7	1.0	1.5	1.8	2.6	3.8
4	0.8	1.2	1.7	2.2	3.1	4.4
5	0.8	1.3	1.9	2.4	3.4	4.8
10	1.4	2.0	2.8	3.5	4.9	6.9
20	2.0	2.8	4.0	4.9	6.9	10.0
30	2.4	3.5	4.9	6.0	8.6	12.0
40	2.9	4.0	5.7	6.9	10.0	14.0
50	3.2	4.5	6.3	7.9	11.0	16.0

Note: The above table is calculated so that the radiation dose received by the films does not exceed 0.1 mSv (10 mrem).

## Means of Securing

The means of securing packages or overpacks must adequately ensure that minimum separation distances are maintained at all times.

**Editorial Note:** An aircraft and equipment used regularly for the transport of radioactive material must be periodically checked to determine the level of contamination. The frequency of such checks must be related to the likelihood of contamination and the extent to which radioactive material is transported. Operators that carry radioactive material need to define the means and frequency of checks for radioactive contamination of aircraft and equipment (e.g. unit load devices).

## 9. Securing of dangerous goods

The cargo handling personnel shall secure dangerous goods in the aircraft by strapping them down to the cargo holds in a manner that will prevent any movement. These consignments shall be strapped down in the cargo holds.

## 10. Loading requirements

- a) When dangerous goods are loaded in an aircraft, handling personnel shall protect the packages of dangerous goods from being damaged, including by the movement of baggage, mail, stores or other cargo. Particular attention shall be paid to the handling of packages during their preparation for transport, the type of aircraft on which they are to be carried and the method required to load that aircraft, so that accidental damage is not caused though dragging or mishandling of the packages.
- b) Handling personnel shall take special precautions to identify damaged packages.

TGM for DG approved Operator	Re-issue: 20 March 2023	Page 33 of 57
------------------------------	-------------------------	---------------

c) Prior to loading of dangerous goods into the aircraft, the shipment shall be inspected for integrity, condition and suitability for loading. If there is any doubt about the suitability for transport, the shipment shall be sent back to cargo for re-preparation for transport.

## 11. STORAGE

- a) Company name (Pty)Ltd will have designated areas which have the following:
  - i. Fire extinguishers
  - ii. Emergency Response Spill kits to store all Dangerous Goods
  - iii. Display of Compatibility Chart/Segregation table
  - iv. Display of Dangerous Goods signage with classes
  - v. Dangerous Goods ground emergency response charts
- b) Dangerous Goods will not be packed close to each other and or on top of each other unless they are compatible as per the Compatibility Chart displayed on the cage
- c) Trained Staff and a Dangerous Goods official is to handle storage in the branch.

## 12. NOTIFICATION TO CAPTAIN (NOTOC)

- 1. As early as practicable before departure of the aircraft, but in no case later than when the aircraft moves under its own power, the operator of an aircraft in which dangerous goods are to be carried must:
  - a) provide the pilot-in-command with accurate and legible written or printed information concerning dangerous goods that are to be carried as cargo before departure of the aircraft; and
  - b) provide personnel with responsibilities for operational control of the aircraft (e.g. the flight operations officer, flight dispatcher, or designated ground personnel responsible for flight operations) with the same information that is required to be provided to the pilot-in-command (e.g. a copy of the written information provided to the pilot-in-command). This is to facilitate notifying emergency services and authorities of the dangerous goods on board in the event of an aircraft accident or incident.
  - c) provide for retention of the NOTOC in a manner that it is accessible to the aerodrome of last departure and of the next scheduled arrival.

**Editorial Note:** The operator must specify the personnel (job title or function) to be provided this information in accordance with 9.3.9(b). The process of ground personnel transmitting this information to personnel with responsibilities for operational control of the aircraft also needs to be explained. Particular attention should be paid to the arrangements for ad hoc charters carrying dangerous goods where ongoing instructions to ensure the availability of the NOTOC may not be in place, e.g. through issuing appropriate instructions within the ground handling request.

**Note:** This includes information about dangerous goods loaded at a previous departure point and which are to be carried on the subsequent flight.

This information must include the following:

a) the air waybill number (when issued);

TGM for DG approved Operator	Re-issue: 20 March 2023	Page 34 of 57
------------------------------	-------------------------	---------------

- b) the proper shipping name (the technical name(s) shown on the dangerous goods transport document is not required) and UN Number or ID number;
- c) the class or division, and subsidiary risk(s) corresponding to the subsidiary risk label(s) applied, by numerals, and (in the case of Class 1) the compatibility group;
- d) the packing group shown on the dangerous goods transport document;
- e) the number of packages and their exact loading location. For radioactive material see (g) below;
- f) the net quantity, or gross mass if applicable, of each package, except that this does not apply to radioactive material or other dangerous goods where the net quantity or gross mass is not required on the dangerous goods transport document. For a consignment consisting of multiple packages containing dangerous goods bearing the same proper shipping name and UN number, only the total quantity and an indication of the quantity of the largest and smallest package at each loading location need to be provided;
- g) for radioactive material, the number of packages, overpacks or freight containers, their category, their Transport Index (if applicable) and their exact loading location;
- h) whether the package must be carried on cargo aircraft only;
- i) the aerodrome at which the package(s) is to be unloaded;
- j) where applicable, an indication that the dangerous goods are being carried under a State exemption; and
- k) signed confirmation, or some other indication, from the person responsible for loading the aircraft that there was no evidence of any damage to or leakage from the packages or any leakage from the unit load devices loaded on the aircraft.

**Note1:** For UN 1845 Carbon dioxide, solid (dry ice), the information detailed above may be replaced by the UN number, proper shipping name, class, total quantity in each hold on the aircraft and the aerodrome at which the package(s) is to be unloaded.

**Note2:** For UN 3480 (**Lithium ion batteries**) and UN 3090 (**Lithium metal batteries**), the information detailed above may be replaced by the UN number, proper shipping name, class, total quantity at each specific loading location, and whether the package must be carried on cargo aircraft only. A full NOTOC is required when such batteries are carried under a State exemption.

**Note3:** For consumer commodities, the information provided may be either the gross mass of each package or the average gross mass of the packages as shown on the dangerous goods transport document

**Editorial Note:** The telephone number where a copy of the information to the pilot-in-command can be obtained during the flight is additionally required on the NOTOC should it be intended to make it possible for the pilot-in-command to provide the appropriate Air Traffic Services Unit with a telephone number instead of details about the dangerous goods on board the aircraft in the event of an in-flight emergency.

- 2. The following dangerous goods need not appear on the NOTOC:
  - a) Dangerous goods packed in excepted quantities
  - b) Biological substance, Category B
  - c) Genetically modified micro-organisms
  - d) Genetically modified organisms

TGM for DG approved Operator	Re-issue: 20 March 2023	Page 35 of 57
------------------------------	-------------------------	---------------

- e) Lithium ion batteries (including lithium ion polymer batteries); Lithium ion batteries contained in equipment; and Lithium ion batteries packed with equipment when meeting the Section II requirements of the applicable Packing Instruction.
- f) Lithium metal batteries (including lithium alloy batteries), Lithium metal batteries contained in equipment, and Lithium metal batteries packed with equipment when meeting the Section II requirements of the applicable Packing Instruction.
- g) Magnetized material
- h) Radioactive material, excepted package (UN 2908, UN 2909, UN 2910 or UN 2911)

## 3. Availability of NOTOC on the Ground for the Duration of Flight

A legible copy of the information to the pilot-in command must be retained on the ground. This copy must have an indication on it, or with it, that the pilot-in-command has received the information. An air service operator of an aircraft in which dangerous goods are to be conveyed shall include in the operations manual specific procedures and requirements related to retention of the NOTOC in a manner that such a document is accessible to the aerodrome of last departure and of the next scheduled arrival.

## 20. DANGEROUS GOODS SECURITY

- The requirements in this section are intended to supplement the requirements of the security regulations and
  to implement measures to be taken to minimise theft or misuse of dangerous goods that may endanger
  persons or property. The provisions of this section do not supersede the requirements of the relevant security
  documents.
- **2.** All persons engaged in the transport of dangerous goods shall consider security requirements for the dangerous goods commensurate with their responsibilities.
- **3.** Dangerous goods shall only be offered to shippers that have been appropriately identified and approved in accordance with the relevant regulatory requirements.
- **4.** Security awareness training addresses the nature of security risks, recognising security risks methods to address and reduce such risks, and actions to be taken in the event of a security breach.
- **5.** Records of all dangerous goods training shall be kept and be made available to the authority upon request.
- **6.** Security plans shall comprise of at least the following elements:
  - a) Specific allocation of responsibilities for security to competent and qualified persons with appropriate authority to carry out their responsibilities
  - b) Records of dangerous goods or types of dangerous goods transported
  - c) Review of current operations and assessment of vulnerabilities, including intermodal transfer, temporary transit storage, handling and distribution

TGM for DG approved Operator	Re-issue: 20 March 2023	Page 36 of 57
------------------------------	-------------------------	---------------

- d) Clear statement of measures including training policies (including response to higher threat conditions, new employees, employment verifications etc.), operating practices, equipment and resources that are to be used to reduce security risks
- e) Effective and up to date procedures for reporting and dealing with security threats, breaches of security or security incidents.
- f) Procedure for the evaluation and testing of security plans and procedures for periodic review and updating of plans.

#### 7. Unauthorised Access

Where an unauthorised person is found having access to Dangerous Goods areas, those goods will be inspected for any pilferage, leakage and or damage before being delivered by road to the airport or delivered from the warehouse to the aircraft.

In any such event of unauthorised access to Dangerous Goods areas, appropriate steps shall be taken without delay to prevent further breaches to the security system.

Where an unauthorised person is detected in the Dangerous Goods areas controlled area the following actions shall be taken:

- a) The person should be challenged. If it is regarded as not safe, the assistance of the security department and or police must be sought.
- b) The identity of the person should be established.
- c) The area where Dangerous Goods are kept that is intended for carriage by air shall be regarded as contaminated/unsecured.
- d) The area, including Dangerous Goods stored in the area shall be subjected to security controls (which may include a thorough search/inspection) as to confirm that Dangerous Goods especially intended for carriage by air is secure.
- e) The SACAA shall be notified of the incident within 48 hours.

#### 8. High consequence dangerous goods

High consequence dangerous Goods are those which have the potential for misuse in a terrorist event and which may, as a result, produce serious consequences such as mass casualties, mass destruction or, particularly for Class 7, mass socio-economic disruption. Consignments comprising of High Consequence Dangerous Goods must be handled according to the requirements laid down in the Air Cargo Security regulations.

High consequence dangerous goods accepted into the facility will be stored in an area that is covered by CCTV. Where it is not possible to store such commodities in areas covered by CCTV, measures will be implemented to maintain constant surveillance over such commodities while under the care and control of the organisation. Subject to the size and quantity of the consignment and where such consignment is required to remain overnight, the police authorities will be notified of the presence of such commodities.

High Consequence Dangerous Goods are received from approved and known clients that declare the contents and ensure that goods are packaged properly. If the goods are not properly packaged, Company name (Pty)Ltd will send goods to Dangerous Goods Packaging Packers for repackaging.

Below is an indicative list of High Consequence Dangerous Goods, except Class 7 Radioactive Materials

Class 1 Division 1.1
Class 1 Division 1.2
Class 1 Division 1.3 compatibility group C
Class 1 Division 1.4, UN 0104, UN 0237, UN 0255, UN 0267, UN 0289, UN 0361, UN
0365, UN 0366, UN 0440, UN 0441, UN 0455, UN 0456, UN 0500
Class 1 Division 1.5
Class 2 Division 2.3 toxic gases (excluding aerosols)
Class 3 Desensitized explosives
Class 4 Division 4.1 desensitized explosives
Class 6 Division 6.1 substances of Packing Group I; except when transported under the
excepted quantity provisions (refer to paragraph 2.6 in the IATA DGR
Class 6 Division 6.2 infectious substances of Category A (UN 2814 and UN 2900)

#### 21. DOCUMENTATION

Note: The references made to dangerous goods document in this section also include the provision for the use electronic data processing (EDP) and electronic data interchange (EDI).

#### 1. General

- a) The person who offers dangerous goods for transport by air shall provide the operator the information applicable to the consignment as set out in this paragraph. The information may be provided on a paper document or, where an agreement exists with the operator, by EDP or EDI.
- b) Where the dangerous goods transport information is provided by EDP or EDI techniques, the data shall be able to be produced as a paper document without delay.
  - i. Shipper and consignee

TGM for DG approved Operator	Re-issue: 20 March 2023	Page 38 of 57
------------------------------	-------------------------	---------------

The name and address of the shipper and the consignee of the dangerous goods shall be included on the dangerous goods transport document.

- ii. Dangerous goods transport document shall contain the following information for each dangerous goods substance, material or article offered for transport:
  - (a) The UN number preceded by the letters 'UN'
  - (b) The proper shipping name, including the technical name enclosed in parenthesis
  - (c) The primary hazard class or, when assigned, the division of the goods. The words "class" or "division" may be included preceding the primary hazard class or division numbers.
  - (d) Where assigned, the packing group for the substance or article which may be preceded by "PG".

## 2. In addition to the dangerous goods description, the following information shall be included after the dangerous goods description on the dangerous goods document.

- a) Quantity of dangerous goods, number and type of packagings
- b) For Salvage Packagings, the words "Salvage package" shall be included
- c) For Infectious substances and controlled substances, the document shall also include the name and telephone number of a responsible person.
- d) A statement indicating that the shipment is within limits prescribed for passenger aircraft
- e) Special handling information, when appropriate

#### 3. Certification

The dangerous goods transport document shall include a certification or declaration that the consignment is acceptable for transport and that the goods are properly packaged, marked and labelled, and in proper condition for transport in accordance with the applicable regulations and including additional air transport requirements.

#### 4. The air waybill

- a) The air waybill shall contain a statement to indicate that the dangerous goods are described on an accompanying dangerous goods transport document.
- b) When dangerous goods are shipped under exemption, a copy of exemption shall accompany the consignment. Where more than one state has granted an exemption for a particular consignment, all the exemption shall accompany the consignment.

#### 5. Retention of Documents

At least one copy of the documents appropriate to the transport by air of a consignment of dangerous goods (including consignments that fail their acceptance check) must be retained for a minimum period of 90 days, or such other period as specified by the States concerned, after the flight on which the dangerous goods were transported. As a minimum, the documents which must be retained are the

dangerous goods transport document (Shipper's Declaration), the acceptance checklist (when this is in a form which requires completion) including identification of the person who completed it, and the NOTOC (if the goods were carried).

**Editorial Note:** Operators should indicate where the documents appropriate to the transport by air of a consignment of dangerous goods are to be retained, e.g. within a flight file, or within the files of a handling agent(s), etc. If this to be carried out by a handling agent, procedures need to be in place, particularly for ad hoc charters.

## 22. SA VARIATION TO ICAO TECHNICAL INSTRUCTIONS

On shipments to, from or transiting South Africa, the shipper's declaration shall include a 24-hour emergency response telephone number (including the dialling code) for use in the event of an incident involving the dangerous goods. The number shall be monitored at all times by a person who:

- a) Is knowledgeable of the hazards and characteristics of the dangerous goods being transported or;
- b) Has immediate access to a person who possesses such knowledge and information

#### 23. AD HOC CHARTERS

**Editorial Note:** Many operators utilise ground handling agents to discharge certain duties with regards to the carriage of dangerous goods by air, e.g. conducting acceptance checks, NOTOC preparation and administration, aircraft loading, retention of documents, etc. Should such operators wish to undertake ad hoc charters involving the carriage of dangerous goods between stations where ongoing ground handling agreements are not in place, it would be necessary for duties to be properly assigned to the agent(s) concerned in advance of the operation of flights. Furthermore, should the agent at the station of departure not operate 24 hours a day, it must also be ensured that a copy of the NOTOC is readily available on the ground in the event of an emergency, e.g. by instructing the agent to fax or e-mail a copy of the completed NOTOC to the operator as soon as possible after the signature by the pilot-in-command has been obtained. Procedures for assigning such duties to agents (such as via the issue of ad hoc ground handling requests) should be established.

#### 24. RECOGNITION OF UNDECLARED / HIDDEN DANGEROUS GOODS

## 1. 'Hidden' Dangerous Goods

Personnel must be alert to indications that undeclared dangerous goods are present within cargo, mail or stores. Personnel interfacing with passengers must be alert to indications that prohibited dangerous goods are carried by passengers or within their baggage.

NOTE: THE DISCOVERY OF UNDECLARED OR MIS-DECLARED DANGEROUS GOODS OR THE DISCOVERY OF DANGEROUS GOODS FORBIDDEN FOR CARRIAGE BY PASSENGERS (DISCOVERED AFTER THE CHECK-IN PROCESS) OR CARGO WAREHOUSE AFTER ACCEPTANCE AND OR SCREENING MUST BE REPORTED TO THE SACAA WITHIN 48 HOURS – SEE 11.10.4.

The following is a list of general descriptions that are often used for items in cargo or in passengers' baggage and the types of dangerous goods that may be included in any item bearing that description.

TGM for DG approved Operator	Re-issue: 20 March 2023	Page 40 of 57

- a. Aircraft on ground (AOG) spares may contain explosives (flares or other pyrotechnics), chemical oxygen generators, unserviceable tyre assemblies, cylinders of compressed gas (oxygen, carbon dioxide or fire extinguishers), fuel in equipment, wet or lithium batteries, matches.
- b. Automobile parts/supplies (car, motor, motorcycle) may include engines (including fuel cell engines), carburettors or fuel tanks that contain or have contained fuel, wet or lithium batteries, compressed gases in tyre inflation devices and fire extinguishers, air bags, flammable adhesives, paints, sealants and solvents, etc.
- c. Battery-powered devices/equipment may contain wet or lithium batteries.
- d. Breathing apparatus may indicate cylinders of compressed air or oxygen, chemical oxygen generators or refrigerated liquefied oxygen.
- e. Camping equipment may contain flammable gases (butane, propane, etc.), flammable liquids (kerosene, gasoline, etc.) or flammable solids (hexamine, matches, etc.).
- f. Cars, car parts see automobile parts, etc.
- g. Chemicals may contain items meeting any of the criteria for dangerous goods, particularly flammable liquids, flammable solids, oxidisers, organic peroxides, toxic or corrosive substances.
- h. Consolidated consignments (groupages) may contain any of the defined classes of dangerous goods.
- i. Cryogenic (liquid) indicates refrigerated liquefied gases such as argon, helium, neon, nitrogen, etc.
- j. Cylinders may contain compressed or liquefied gas.
- bental apparatus may contain flammable resins or solvents, compressed or liquefied gas, mercury and radioactive material.
- I. Diagnostic specimens may contain infectious substances.
- m. Diving equipment may contain cylinders of compressed gas (e.g. air or oxygen). May also contain high intensity diving lamps that can generate extreme heat when operated in air. In order to be carried safely, the bulb or battery should be disconnected.
- n. Drilling and mining equipment may contain explosive(s) and/or other dangerous goods.
- o. Dry shipper (vapour shipper) may contain free liquid nitrogen. Dry shippers are only not subject to these Instructions when they do not permit the release of any free liquid nitrogen irrespective of the orientation of the packaging.
- p. Electrical/electronic equipment may contain magnetised materials, mercury in switch gear, electron tubes, wet or lithium batteries or fuel cells or fuel cell cartridges that contain or have contained fuel.
- q. Electrically-powered apparatus (wheelchairs, lawn mowers, golf carts, etc.) may contain wet or lithium batteries or fuel cells or fuel cell cartridges that contain or have contained fuel.
- r. Expeditionary equipment may contain explosives (flares), flammable liquids (gasoline), flammable gas (camping gas) or other dangerous goods.
- s. Film crew and media equipment may contain explosive pyrotechnic devices, generators incorporating internal combustion engines, wet or lithium batteries, fuel, heat-producing items, etc.
- t. Frozen embryos may be packed in refrigerated liquefied gas or dry ice (solid carbon dioxide).

TGM for DG approved Operator	Re-issue: 20 March 2023	Page 41 of 57
------------------------------	-------------------------	---------------

- u. Frozen fruit, vegetables, etc. may be packed in dry ice.
- v. Fuel control units may contain flammable liquids.
- w. Hot-air balloon may contain cylinders with flammable gas, fire extinguishers, engines (internal combustion), batteries, etc.
- x. Household goods may contain items meeting any of the criteria for dangerous goods. Examples include flammable liquids such as solvent-based paint, adhesives, polishes, aerosols (for passengers, those not permitted under ICAO Technical Instructions 8;1.1.2), bleach, corrosive oven or drain cleaners, ammunition, matches, etc.
- Instruments may conceal barometers, manometers, mercury switches, rectifier tubes, thermometers, etc. containing mercury.
- z. Laboratory/testing equipment may contain items meeting any of the criteria for dangerous goods, particularly flammable liquids, flammable solids, oxidisers, organic peroxides, toxic or corrosive substances, lithium batteries, cylinders of compressed gas, etc.
- aa. Machinery parts may contain flammable adhesives, paints, sealants and solvents, wet and lithium batteries, mercury, cylinders of compressed or liquefied gas, etc.
- bb. Magnets and other items of similar material may individually or cumulatively meet the definition of magnetised material.
- cc. Medical supplies/equipment may contain items meeting any of the criteria for dangerous goods, particularly flammable liquids, flammable solids, oxidisers, organic peroxides, toxic or corrosive substances, lithium batteries.
- dd. Metal construction material may contain ferro-magnetic material which may be subject to special stowage requirements due to the possibility of affecting aircraft instruments.
- ee. Metal fencing may contain ferro-magnetic material which may be subject to special stowage requirements due to the possibility of affecting aircraft instruments.
- ff. Metal piping may contain ferro-magnetic material which may be subject to special stowage requirements due to the possibility of affecting aircraft instruments.
- gg. Pharmaceuticals may contain items meeting any of the criteria for dangerous goods, particularly radioactive material, flammable liquids, flammable solids, oxidisers, organic peroxides, toxic or corrosive substances.
- hh. Photographic supplies/equipment may contain items meeting any of the criteria for dangerous goods, particularly heat-producing devices, flammable liquids, flammable solids, oxidisers, organic peroxides, toxic or corrosive substances, lithium batteries.
- ii. Racing car or motorcycle team equipment may contain engines (including fuel cell engines), carburettors or fuel tanks that contain fuel or residual fuel, wet and lithium batteries, flammable aerosols, nitromethane or other gasoline additives, cylinders of compressed gases, etc.
- ij. Refrigerators may contain liquefied gases or an ammonia solution.
- kk. Repair kits may contain organic peroxides and flammable adhesives, solvent-based paints, resins, etc.

TGM for DG approved Operator	Re-issue: 20 March 2023	Page 42 of 57
------------------------------	-------------------------	---------------

- II. Samples for testing may contain items meeting any of the criteria for dangerous goods, particularly infectious substances, flammable liquids, flammable solids, oxidisers, organic peroxides, toxic or corrosive substances.
- mm. Semen may be packed with dry ice or refrigerated liquefied gas (see also dry shipper).
- nn. Sporting goods/sports team equipment may contain cylinders of compressed or liquefied gas (air, carbon dioxide, etc.), lithium batteries, propane torches, first aid kits, flammable adhesives, aerosols, etc.
- oo. Swimming pool chemicals may contain oxidising or corrosive substances.
- pp. Switches in electrical equipment or instruments may contain mercury.
- qq. Tool boxes may contain explosives (power rivets), compressed gases or aerosols, flammable gases (Butane cylinders or torches), flammable adhesives or paints, corrosive liquids, lithium batteries, etc.
- rr. Torches micro torches and utility lighters may contain flammable gas and be equipped with an electronic starter. Larger torches may consist of a torch head (often with a self-igniting switch) attached to a container or cylinder of flammable gas.
- ss. Unaccompanied passengers' baggage/personal effects may contain items meeting any of the criteria for dangerous goods not permitted for carriage by passengers and crew.

**Note:** Excess baggage carried as cargo may contain certain dangerous goods.

Vaccines — may be packed in dry ice.

## 2. Identification of Dangerous Goods Through X-Ray Screening

Persons conducting security screening of cargo should be alert to the presence of dangerous goods within packages that are not marked and labelled as dangerous goods and/or not accompanied by a Shipper's Declaration. In particular, items such as aerosols, ammunition, gas cylinders (camping gas, cylinders attached to life-jackets, etc.), cigarette lighters and wet acid batteries can be readily identified from x-ray images. Information provided on an air waybill or marked on a package often indicates that a consignment contains no dangerous goods. In the absence of such annotation by the shipper, should suspicions be raised by the size and shape of the contents of a package, consideration should be given to opening and hand-searching the consignment to verify that no undeclared dangerous goods are present.

Consignments of dangerous goods that have been properly marked, labelled and declared to the operator (where approved for carriage) are commonly processed separately from general freight. Should consignments bearing UN numbers, proper shipping names or hazard labels be discovered within general freight, when separate arrangements exist, this should be queried. It may be that no shipper's declaration accompanies the consignment; as such the consignment of dangerous goods would be considered 'undeclared'.

## 3. Declaration of cargo

An air service operator must develop procedures to prevent any item of cargo to be loaded on board an aircraft unless the cargo has been correctly declared as dangerous goods or it has been given a declaration statement or confirmation in accordance stating that the cargo is not dangerous goods.

## 4. GHS/CHIP Consumer Labelling (Overview)

TGM for DG approved Operator	Re-issue: 20 March 2023	Page 43 of 57
------------------------------	-------------------------	---------------

Some everyday household items bear consumer warning labels which may or may not indicate they are classified as dangerous goods in air transport. All over the world there are different laws on how to identify the hazardous properties of chemicals (called 'classification') and how information about these hazards is then passed to users (through consumer supply labels and safety data sheets for workers). This can be confusing because the same chemical can have different hazard descriptions in different countries. For example, a chemical could be labelled for supply as 'toxic' in one country, but not in another. For this reason, the UN brought together experts from different countries to create the Globally Harmonized System of Classification and Labelling of Chemicals (GHS).

#### 5. GHS Labels

Products bearing the following GHS labels ARE classified as dangerous goods:















**Note:** A product bearing the GHS corrosive label (depicted far right above) is NOT classified as dangerous goods if the signal word 'Danger' <u>and</u> hazard statement 'causes serious eye damage' **applies**.

Products bearing the following GHS labels (and none of the above) are NOT classified as dangerous goods:





## 25. EMERGENCY SITUATIONS

## 1. Provision of Information for Use in Responding to In-Flight Emergencies

For those dangerous goods for which a dangerous goods transport document is required, the commander of an aircraft carrying such goods must be provided with information which can be used on board to assist in planning the response to an emergency arising in-flight involving the dangerous goods.

## 2. Conditions Under Which Weapons, Munitions of War and Sporting Weapons May Be Carried

## a) Need for Approval to Transport Munitions of War

Weapons of war and munitions of war can only be carried provided an approval to do so has been granted by all the States concerned before a flight. They must be carried in a place inaccessible to passengers during flight and, in the case of firearms, unloaded. In South Africa, the operator must apply to the SACAA Dangerous Goods Department should they need to apply for such an exemption.

## b) Notifying Commander of the Carriage of Munitions of War

TGM for DG appro	oved Operator	Re-issue: 20 March 2023	Page 44 of 57

The commander must be notified before a flight if weapons of war or munitions of war are to be carried on the aircraft.

## c) Carriage of Sporting Weapons When Inaccessible to Passengers During Flight

Sporting weapons and ammunition for such weapons may be carried without an approval from an Authority, provided they are stowed in a place on the aircraft which is inaccessible to passengers during flight and, in the case of firearms, unloaded.

**Editorial Note 1:** Operators must take all reasonable measures to ensure that any sporting weapons intended to be carried by air are reported to them and operators should describe the measures in place to make passengers aware of the need to furnish the operator with details of any sporting weapon they intend to carry. For aircraft without inaccessible compartments, carriage should be prohibited unless alternative effective procedures for stowing the weapons in a place that is inaccessible to passengers are established.

d) The passenger and operator (or his agent) must observe all regulations applicable to the export, import and transit of weapons and ammunition, applicable in the country of departure, transit and destination.

**Editorial Note 1:** Operators should consider all relevant legislation when formulating procedures for the carriage of weapons, munitions of war and sporting weapons.

#### 26. DANGEROUS GOODS NOTIFICATION REQUIREMENTS

## 1. Information to be Provided by the Pilot-In-Command in the Event of an In-Flight Emergency

If an in-flight emergency occurs and the situation permits, the commander (PIC) must without delay inform the appropriate Air Traffic Services Unit (ATSU), of any dangerous goods on board. This information should include the proper shipping name, class/division, identified subsidiary risk(s), compatibility group for explosives, quantity and location on board.

**Editorial Note:** This information can be provided by the 'Emergency Response Guidance for Aircraft Incidents Involving Dangerous Goods' (Doc 9481), which is published by the International Civil Aviation Organization, or by another document giving similar information. Operators should establish what information is to be made available to flight crew onboard aircraft.

# 2. Information to be Provided by the Operator in the Event of an Aircraft Accident or Serious Incident Where Dangerous Goods Carried as Cargo may be Involved

If an aircraft carrying dangerous goods as cargo is involved in an accident or serious incident where the dangerous goods may be involved, the operator 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 copy of the information to the pilot-in-command (NOTOC). The information must be sufficient to enable any hazards created by the dangerous goods to be minimised and include the proper shipping name, UN number, class/division, any identified subsidiary risks, the compatibility group for explosives, the quantity and the location on board the aircraft. The operator must within 48 hours after such an accident or incident has occurred, provide a report to the SACAA Dangerous Goods Department by using the following email: <a href="mailto:avSECIncidents@caa.co.za">avSECIncidents@caa.co.za</a> and Dangerousgoodsoperations@caa.co.za

TGM for DG approved Operator	Re-issue: 20 March 2023	Page 45 of 57
------------------------------	-------------------------	---------------

## 3. Information to be Provided by the Operator in the Event of an Aircraft Incident

In the event of an aircraft incident, the operator of an aircraft carrying dangerous goods as cargo must, if requested to do so, provide information without delay to the emergency services responding to the incident and to the appropriate authority of the State in which the incident occurred, about the dangerous goods on board, as shown on the copy of the information to the pilot-in-command (NOTOC).

#### 27. DANGEROUS GOODS ACCIDENT AND INCIDENT REPORTING

#### 1. Definitions:

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 associated with andrelated to the transport of dangerous goods by air, not necessarily occurring on board an aircraft, which results in injury to a person, property or environmental damage, fire, breakage, spillage, leakage of fluid or radiation or other evidence that the integrity of the packaging has not been maintained. Any occurrence relating to the transport of dangerous goods which seriously jeopardises an aircraft or its occupants is also deemed to be a dangerous goods incident.

**Note:** A dangerous goods accident or incident may also constitute an aircraft accident or incident as specified in ICAO Annex 13 — Aircraft Accident and Incident Investigation.

## 2. Dangerous Goods Accident and incident reporting both Declared and undeclared

An air service operator of an aircraft approved to transport dangerous goods must develop procedures for reporting if involved in a dangerous goods accident or dangerous goods incident within the Republic or outside the Republic as defined in the regulations (SACARs) and technical standards (SACATs). The incident or accident must be reported within 48 hours after such accident or incident has occurred.

The reportable incidents include declared, misdeclared and undeclared dangerous goods including and occurrences.

An operator must report to the State of the Operator and the State of Origin any occasion when:

- a) dangerous goods are discovered to have been carried when not correctly loaded, segregated, separated or secured.
- b) dangerous goods are discovered to have been carried without information having been provided to the pilot-in command (when required) or the information is inadequate.
- 3. An operator must report any occasion when undeclared or mis-declared dangerous goods are discovered in cargo or mail. Such a report must be made to the appropriate authorities of the State of the Operator and the State in which this occurred.

An operator must report any occasion when dangerous goods that are not permitted are discovered by the operator (or the operator is advised by the entity that discovers the dangerous goods) either in the baggage or on the person of passengers (after check-in) or crew members. Such a report must be made to the appropriate authority of the State in which this occurred.

TGM for DG approved Operator	Re-issue: 20 March 2023	Page 46 of 57

- 4. In addition to the requirements of the ICAO Technical Instructions for the reporting of dangerous goods occurrences (above), the SACAA requires that any incident which endangers or which, if not corrected, would endanger an aircraft, its occupants or any other person is reported to the Dangerous Goods Responsible person designated as per requirements of such dangerous goods occurrences must be reported through the safety management system reporting of the operator:
  - a) Dangerous goods found not to have been secured to prevent movement
  - b) Damage to packages of dangerous goods
  - c) NOTOC errors where dangerous goods have not been stowed in accordance with loading instructions
  - d) Failure to prepare electric wheelchairs in order to prevent accidental activation
  - e) Electric wheelchairs found not to have been stowed and secured correctly
  - f) Leakage of dangerous goods from passenger baggage

The first and any subsequent report shall be as precise as possible and contain such of the following data that are relevant:

- a) Date of the incident or accident or the finding of undeclared or misdeclared dangerous goods.
- b) Location, the flight number and flight date.
- c) Description of the goods and the reference number of the air waybill, pouch, baggage tag, ticket, etc.
- d) Proper shipping name (including the technical name, if appropriate) and UN/ID number, when known.
- e) Class or division and any subsidiary risk.
- f) Type of packaging, and the packaging specification marking on it.
- g) Quantity of dangerous goods.
- h) Name and address of the shipper, passenger, etc.
- i) Any other relevant details.
- j) Suspected cause of the incident or accident.
- k) Action taken.
- Any other reporting action taken.
- m) Name, title, address and telephone number of the person making the report.
- n) Copies of relevant documents and any photographs taken should be attached to a report.

NOTE: IF SAFE TO DO SO, THE DANGEROUS GOODS INVOLVED IN THE ACCIDENT OR INCIDENT SHOULD BE HELD PENDING CAA INVESTIGATION.

TGM for DG approved Operator	Re-issue: 20 March 2023	Page 47 of 57
------------------------------	-------------------------	---------------

**Editorial Note:** Operators should describe their procedures for reporting dangerous goods incidents, accidents and undeclared dangerous goods to the CAA. Where applicable, this information should be provided to handling agents so that, as a minimum, they are advised to whom events should be submitted places a direct legal duty upon a person who performs a function in respect of the ground handling of aircraft to report to the CAA any incident which endangers or which, if not corrected, would endanger an aircraft, its occupants or any other person).

#### 28. REMOVAL OF CONTAMINATION

In the event of a spillage or leakage of dangerous goods within an aircraft, the position where the dangerous goods or ULD was stowed on the aircraft must be inspected for damage or contamination and any hazardous contamination removed. The hazard of the dangerous goods within packages concerned may be established by checking the entry on the NOTOC for that loading position or from hazard labels applied to the packages. The hazard classes and divisions of dangerous goods within a ULD may also be identified from the NOTOC or otherwise, should package labels not be visible, from the ULD tag bearing red hatchings applied to the outside of the ULD. Persons responding in the event of damage to or leakage of dangerous goods from packages must:

- identify the hazards and wear appropriate protective clothing;
- b) avoid handling the package or keep handling to a minimum;
- c) inspect adjacent packages for contamination and put aside any that may have been contaminated;
- d) arrange for decontamination of the aircraft and equipment; and
- e) in the case of infectious material, inform the appropriate public health authority or veterinary authority, and provide information to any other countries of transit where persons may have been exposed to danger; and notify the shipper and/or the consignee.
- f) Do not allow the contents of the package(s) to come into contact with any part of the body
- g) Do not inhale any vapour or fumes
- h) In case of damage or leakage, inspect the remainder of the shipment to ensure all packages are in good condition for air transportation
- i) Guard against fire

If it is evident that a package containing radioactive material is damaged or leaking, or if it is suspected that the package may have leaked or been damaged, access to the package must be restricted and a qualified person must, as soon as possible, assess the extent of contamination and the resultant radiation level of the package. The scope of the assessment must include the package, the aircraft, the adjacent loading and unloading areas and, if necessary, all other material which has been carried in the aircraft. When necessary, additional steps for the protection of persons, property and the environment must be taken in accordance with provisions established by the relevant competent authority, to overcome and minimise the consequences of such leakage or damage. An aeroplane which has been contaminated by radioactive materials must be immediately taken out of service and not returned until the radiation level at any accessible surface and the non-fixed contamination are not more than the values specified in the Technical Instructions. In the event of non-compliance with any limit in the Technical Instructions applicable to radiation level or contamination, the operator must ensure the shipper is informed if the non-compliance is identified during transport; take immediate steps to mitigate the consequences of the non-compliance; and communicate the non-compliance to the shipper and relevant competent Authority(ies), respectively, as soon as practicable and immediately whenever an emergency situation has developed or is developing.

TGM for DG approved Operator	Re-issue: 20 March 2023	Page 48 of 57

#### 29. HELICOPTER OPERATIONS

Due to the difference in the type of operations carried out by helicopters, there may be circumstances when the full provisions of these instructions are not appropriate or necessary, due to the operations involving unmanned sites, remote locations, mountainous areas or construction sites. In such circumstances and when appropriate, the State of the Operator may grant an approval in order to permit Dangerous Goods Carriage without the normal requirements of the Technical Instructions.

When Transporting Dangerous Goods with a Helicopter the following points must be taken into consideration:

- a) When loading dangerous goods for open external carriage by a helicopter, consideration should also be given to the type of packaging used and to the protection of packaging used and to the protection of those packagings from the effects of airflow and weather.
- b) When dangerous goods are carried suspended from a helicopter, the operator must ensure that consideration is given to the dangers of static discharge upon landing or release of the load.
- c) When helicopters are carrying passengers, in accordance with Part S-7; 2.2.4 of the Technical Instructions supplement, the State of the Operator may grant an approval to permit carriage of dangerous goods either:
- i. In the cabin, when those dangerous goods are associated with and accompanied by the passengers; or
- ii. In cargo compartments that do not meet the requirements of Part 7; 2.1.1 of the Technical Instructions

#### 30. TRAINING PROGRAMME

## 1. Refer to the technical guidance material for Competency Based Training.

An air service operator must establish a training programme for all its employees who require dangerous goods training in terms of CAR Part 92

## 2. Competency Based Training and Assessment employee grouping

The employee grouping table below is to assist employers and training organisations in defining employee categories for job functions and training purposes in accordance with CAR Part 92. For the purpose of these groupings, the term **deemed employee** means a person who, although not employed by an aircraft operator, ground handling agent, freight forwarder, screening authority or shipper of dangerous goods performs for the operator ground handling agent, freight forwarder, screening authority or shipper any of the following services:

- a) accepting cargo consigned for transport on an aircraft, or supervising someone whose duties include accepting such cargo at any time after it leaves the custody of the original consignor;
- b) acting as a member of an aircraft's flight crew or as a load planner;

- c) acting as a member of an aircraft's cabin crew;
- d) handling cargo consigned for transport on an aircraft at any time after it leaves the custody of the original consignor, or supervising someone whose duties include handling such cargo;
- e) handling passenger's checked or carry-on baggage, or supervising someone whose duties include handling such baggage; and
- f) packing dangerous goods, or supervising someone whose duties include packing such goods, in the course of the goods' being consigned for carriage on an aircraft.

## (1) **Group A employee** means:

- (a) an employee whose duties include accepting, or supervising someone whose duties include accepting, cargo known or believed to contain dangerous goods consigned for transport on an aircraft at any time after it leaves the custody of the original consignor;
- (b) a deemed employee whose function includes those duties; or
- (c) any other employee whose duties are defined in the operations manual including but not limited to training, moderating and overseeing dangerous goods activities within the organisation.

## (2) Group B employee means:

- (a) an employee whose duties include accepting, or supervising someone whose duties include accepting, cargo consigned for transport on an aircraft (other than cargo known or believed to contain dangerous goods) at any time after it leaves the custody of the original consignor; or
- (b) a deemed employee whose function includes those duties.

## (3) **Group C employee** means:

- (a) an employee who is a member of an aircraft's flight crew or a load planner or flight dispatcher; or
- (b) a deemed employee whose function includes performing the duties of a member of an aircraft's flight crew or flight dispatcher or a load planner.
- (c) **Load planner**, in relation to dangerous goods, means a person nominated by an operator to be responsible for any one or more of the following:

TGM for DG approved Operator	Re-issue: 20 March 2023	Page 50 of 57
1 Citi to Bo approva operator	1 to 10000. Lo maron Lozo	1 490 00 01 01

- (a) specifying where dangerous goods may be stowed on an aircraft;
- (b) specifying the necessary segregation of the goods from other dangerous goods, other cargo, or passengers on the aircraft;
- (c) preparing information for the use of the pilot-in-command; and
- (d) providing dangerous goods emergency response information for the pilot-in command.

## (4) Group D employee means:

- a) an employee who is a member of an aircraft's cabin crew; or
- b) a deemed employee whose function includes performing the duties of a member of an aircraft's cabin crew.

## (5) **Group E employee** means:

- a) any employee of an operator, ground handling agent, freight forwarder or screening authority who is not a group A, B, C or D employee and whose duties involve handling:
  - i. cargo consigned for transport on an aircraft at any time after it leaves the custody of the original consignor; or
  - ii. passenger's checked or carry-on baggage; or
- b) a deemed employee whose function includes those duties.

## (6) **Group F employee** means:

- a) an employee of a shipper of goods whose duties include packing dangerous goods, or supervising someone else whose duties include packing dangerous goods, in the course of the goods being consigned for transport on an aircraft; or
- b) a deemed employee whose function includes those duties.

#### (7) **Group G employee** means:

TGM for DG approved Operator	Re-issue: 20 March 2023	Page 51 of 57
------------------------------	-------------------------	---------------

- a) an employee of a shipper of goods whose duties include handling and packing infectious substances, or supervising someone else whose duties include handling and packing infectious substances, in the course of the goods being consigned for transport on an aircraft; or
- b) a deemed employee whose function includes those duties.

## (8) **Group H employee** means:

- a) an employee of a shipper of goods whose duties include handling and packing Lithium Batteries, or supervising someone else whose duties include handling and packing lithium batteries, in the course of the goods being consigned for transport on an aircraft; or
- b) a deemed employee whose function includes those duties.

## (9) Group I employee means:

- a) an employee of a postal operator or postal service entity whose duties include handling and processing mail and cargo, or supervising someone else whose duties include handling and processing mail and cargo, in the course of the goods being consigned for transport on an aircraft; or
- b) a deemed employee whose function includes those duties.

#### (10) **Group J employee** means:

- a) an employee of an operator, shipper or any entity whose duties include accepting, handling and processing of radioactive material, or supervising someone else whose duties include accepting, handling and processing of radioactive material, in the course of the goods being consigned for transport on an aircraft; or
- b) a deemed employee whose function includes those duties.

#### **Dangerous Goods Employee Groupings Table**

TGM for DG approved Operator

Group A	Dangerous Goods Acceptance personnel	
	Instructors/Moderators/ designated DG     responsible personnel/quality auditors	

Re-issue: 20 March 2023

Page 52 of 57

Group B	Non-DG Cargo acceptance personnel
Group C	<ul> <li>Pilots/load controllers</li> <li>Flight dispatch</li> <li>Flight Operations officers</li> </ul>
Group D	• <u>Cabin Crew</u>
Group E	<ul> <li>Passenger handling</li> <li>Baggage handlers</li> <li>Warehouse personnel</li> <li>Security Screeners</li> </ul>
Group F	<ul> <li>Shippers</li> <li>Packers of dangerous goods</li> <li>Freight forwarders</li> <li>Courier personnel</li> </ul>
Group G	Infectious substances handling personnel
Group H	<u>Lithium battery handling personnel</u>

TGM for DG approved Operator	Re-issue: 20 March 2023	Page 53 of 57
------------------------------	-------------------------	---------------

Group I	Post Office personnel involved in handling mail and cargo	
Group J	Radioactive material handling personnel	



Department /Division:

**Dangerous Goods** 

Annex A

Document Owner:

Name of Document:

**Executive: Aviation Security** 

## APPOINTMENT LETTER: PERSON RESPONSIBLE FOR DANGEROUS GOODS

#### APPOINTMENT LETTER: PERSON RESPONSIBLE FOR DANGEROUS GOODS

I, <u>James Bond</u> in my capacity as Executive Flight Operations, appoints you <u>James Bond Jnr</u>, <u>Cargo Safety & Compliance</u>, as the designated person responsible for Dangerous Goods for <u>James Bond Airways (Pty) Ltd</u> as per the South African Civil Aviation Authority Regulatory Standards and Requirements (Part 92.01.43).

For your convenience, please refer to Part 92.01.43 outlining roles and responsibilities as follows:

## Designation of persons responsible for dangerous goods

**92.01.43** (1) Each operator, ramp handling organisation, ground handling organisation and aerodrome manager shall designate a dangerous goods person who shall be responsible for the following matters involving dangerous goods—

- a) Compliance with the regulations;
- b) Quality control;
- c) Reporting of accidents and incidents;
- d) Maintenance of dangerous goods incidents and accidents records.

#### Additional responsibilities may include the following:

- a) The development, amendment and implementation of the overall dangerous goods operations Manual for <u>the</u> <u>operator or dangerous goods procedures manual for the Shipper, airport, Freight Forwarder, packer or Cargo Operator.</u>
- b) The development and promulgation of companywide Dangerous Goods safety standards and practices to ensure compliance with Part 92 regulation.
- c) Establishing and maintaining effective liaison with the SACAA, airport authorities as well as other government and law enforcement agencies.
- d) Ensuring that effective risk assessment and analysis are conducted regularly and that there is sufficient response capability in case of incidents and accidents.
- e) Ensuring understanding of legislation and regulations relating to Dangerous Goods throughout the organisation.
- f) Providing specialized advice to line management in all aviation safety functions regarding dangerous goods.
- g) Ensuring all staff dealing with dangerous goods and related documentation are trained and proper control of training records are established and maintained.
- h) Ensuring appointment of suitably qualified persons as dangerous goods officials in the respective branches of (Company name) (Pty) Ltd in a case where multiple branches exist.

Sincerely,

TGM for DG approved Operator	Re-issue: 20 March 2023	Page 55 of 57
------------------------------	-------------------------	---------------

Signature:

Name: James Bond

Position: Executive Flight Operations

Date: 10 May 2023

## **ACCEPTANCE**

I <u>James Bond Jnr</u>, hereby accept and acknowledge the above responsibilities of this appointment.

Signature:

Date: 11 May 2023



Department /Division:

**Dangerous Goods** 

**Annex B** 

Document Owner:

Name of Document:

Executive: Aviation Security

**CERTIFICATES** 

## Attach copies of certificates

DEVELOPED BY:		
Annah	Bheki Ngiba	20 March 2023
SIGNATURE OF M: DG	NAME IN BLOCK LETTERS	DATE
REVIEWED & VALIDATED BY:		
TDW	Nico Smit	20 March 2023
SIGNATURE OF SM: DC	NAME IN BLOCK LETTERS	DATE
APPROVED BY:		
Ant-	Luvuyo Gqeke	20 March 2023
SIGNATURE OF E: AVSEC	NAME IN BLOCK LETTERS	DATE