



# Advisory Circular

## AC92-4

### Dangerous Goods Manuals

Revision 1  
12 March 2024

#### General

Civil Aviation Authority advisory circulars (ACs) contain information about standards, practices, and procedures that the Director has found to be an **acceptable means of compliance** with the associated rule.

Consideration will be given to other methods of compliance that may be presented to the Director. When new standards, practices, or procedures are found to be acceptable they will be added to the appropriate AC.

#### Purpose

This AC describes an acceptable means of compliance with the dangerous goods (DG) manual requirements prescribed under Civil Aviation Rules (CAR), Part 92 *Carriage of Dangerous Goods*, particularly for smaller operators and private pilots.

#### Related Rules

This AC relates specifically to CAR Part 92. In addition, it also relates to CAR Part 133 *Helicopter External Load Operations*.

#### Change Notice

Revision 1 replaces the various manuals with two new sample manuals for a will-carry and will-not-carry operator respectively. It also makes minor updates throughout to clarify the intent of the AC.

#### Version history

AC Revision No.	Effective Date	Summary of Changes
AC92-04, Rev 0	1 August 2022	Initial Issue
AC92-04, Rev 1	12 March 2024	Replaces the various manuals with two new sample manuals for a will-carry and will-not-carry operator respectively.  Makes minor updates throughout to clarify the intent of the AC.

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## 1. Introduction

Certificated operators must have an exposition that outlines their organisation's procedures and practices to ensure compliance with the relevant rule parts<sup>1</sup>. This exposition needs to cover methods of compliance with Part 92, which for the most part requires compliance with the *ICAO Technical Instructions for the Carriage of Dangerous Goods by Air* (ICAO TIs).

A non-certificated operator, or a private pilot carrying Dangerous Goods (DG), should consider the benefits of having written guidelines or Standard Operating Procedures (SOPs) that explain in simple terms the processes for carrying DG by air, that is, a 'DG manual'. The term 'DG manual' is used throughout this section to refer to the exposition section, separate manual, or SOPs relating to DG.

A DG manual is an operator's guide on how they are going to apply Part 92 and the ICAO TIs. It is not simply a repeat of the rule itself: it needs to explain in simple terms how each person carries out their DG duties, including if applicable packing, shipping, accepting and handling DG. The DG manual also needs to be relevant to the processes and procedures of the operator and its employees, so not a generic 'off-the-shelf' version. Operators need to review it on an annual basis to ensure alignment with the ICAO TIs and relevance to the operator's DG carriage requirements.

This AC provides guidance on what CAA expects in a DG manual, though not everything will be applicable to all cases. Operators can leave out aspects that are not applicable to their operation. Conversely, there may be other aspects that need to be explained depending on the nature of the operation.

This AC also contains two examples of manuals designed as templates that operators may wish to refer to when creating or amending their DG manual: one for an operator who carries DG as cargo, and one for an operator who does not carry DG as cargo. These examples do not include any specific helicopter provisions that are explained in AC 92-2, so if a helicopter operator wants to use these provisions, they must be explained in the relevant section of the operator's DG manual.

While the ICAO TIs are the primary reference document, it is acknowledged that many operators prefer to use the International Air Transport Association Dangerous Goods Regulations (IATA DGR). It is acceptable to use the IATA DGR as the prime reference for carriage of DG by air, and application of the IATA DGR does ensure that compliance with the ICAO TIs is achieved. In some cases, the IATA DGR is more restrictive than the ICAO TIs.

Despite what type of DG manual operators choose, it is important to bear in mind that some items of DG are forbidden for transport by air. Nothing in this AC is intended to allow these items to be carried.

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<sup>1</sup> Rule 119.81(a)(i); Rule 119.125(a)(1)(i); AC 119-1, *Air Operator Certification*

## 2. Definitions and Abbreviations

<b>Definitions</b>	
<b>Approval</b>	An authorisation granted by CAA to carry DG that is otherwise forbidden, where the ICAO TIs state that an approval may be granted.
<b>Baggage</b>	Personal property of a passenger or crew member carried on an aircraft with that person.
<b>Cargo</b>	Any property carried on an aircraft other than mail and baggage.
<b>Certified Handler</b>	A person who holds a compliance certificate as a certified handler issued under the Health and Safety at Work (Hazardous Substances) Regulations 2017
<b>Competency-based Training</b>	Training and assessment characterised by the defining and setting of performance standards, development of training to meet those standards, and training and assessment against those standards.
<b>Dangerous Goods (DG)</b>	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 TIs, or which are classified according to the ICAO TIs.  <i>Note: This definition is from the TIs and differs slightly from the definition in the Civil Aviation Act (1990).</i>
<b>Dangerous Goods Declaration (DGD)</b>	The IATA Dangerous Goods Transport Document.
<b>Exception</b>	A provision contained within the ICAO TIs which excludes a specific item of DG from requirements normally applicable to that item.
<b>Exemption</b>	An authorisation, other than an approval, granted by CAA providing relief from the requirements of the ICAO TIs. <sup>2</sup>
<b>Handling agent</b>	An agency which performs on behalf of an operator some or all of the operator's functions including receiving, loading, unloading, transferring, or other processing of passengers or cargo.
<b>IATA DGR</b>	The International Air Transport Association's Dangerous Goods Regulations.
<b>ICAO Technical Instructions (TIs)</b>	The International Civil Aviation Organisation's Document 9284: <i>Technical Instructions for the Safe Transport of Dangerous Goods by Air</i> .  <i>Note: For a full definition, refer to the TIs.</i>
<b>No-carry</b>	IATA definition of an operator who does not carry DG as cargo (synonymous with a will-not-carry operator).
<b>Notification to Captain (NOTOC)</b>	The document that advises the pilot in command of DG loaded in the aircraft, including emergency response codes.
<b>Will-carry</b>	An operator who carries DG as cargo.
<b>Will-not-carry</b>	An operator who elects not to carry DG as cargo. A will-not-carry operator may still carry DG under other provisions, such as DG carried by passengers and crew.

<sup>2</sup> An exemption is provided for in S37 of the CA Act 1990. An exemption is also provided for in the ICAO TIs, but any request for a DG exemption will be considered as a S37 exemption.

<b>Abbreviations</b>	
<b>AC</b>	Advisory circular
<b>a/c</b>	Aircraft
<b>CAA</b>	Civil Aviation Authority
<b>CAO</b>	Cargo Aircraft Only
<b>CAR</b>	Civil Aviation Rules
<b>DG</b>	Dangerous Goods
<b>DGD</b>	Dangerous Goods Declaration
<b>DGR</b>	Dangerous Goods Regulations
<b>Doc</b>	Document
<b>DOC</b>	Department of Conservation
<b>EQ</b>	Excepted quantity
<b>ERG</b>	Emergency response guidance
<b>g</b>	Gram
<b>G</b>	Gross mass
<b>IATA</b>	International Airline Transport Association
<b>IAW</b>	In accordance with
<b>ICAO</b>	International Civil Aviation Organisation
<b>kg</b>	Kilogram
<b>L</b>	Litre
<b>Max</b>	Maximum
<b>mg</b>	Milligram
<b>mL</b>	Millilitre
<b>N/A</b>	Not applicable
<b>n.o.s</b>	Not otherwise specified
<b>NOTOC</b>	Notification to Captain
<b>PED</b>	Personal Electronic Device
<b>PI</b>	Packing Instruction
<b>Pkg</b>	Package
<b>PSN</b>	Proper Shipping Name
<b>Qty</b>	Quantity
<b>SMS</b>	Safety Management System
<b>S.P.</b>	Special Provision
<b>TIs</b>	Technical Instructions
<b>UN</b>	United Nations
<b>v</b>	Volt
<b>Wh</b>	Watt-hour

### 3. Policy Statement and Introduction to the DG manual

Operators tend to fall into one of two categories: those that 'will-not-carry' DG and those that 'will-carry' DG.

- **'Will-not-carry' DG operators.** These operators do not carry DG as cargo but may carry DG under the other provisions of Part 92 and the ICAO TIs.
- **'Will-carry' DG operators.** These operators do carry DG as cargo, as well as carrying DG under the other provisions of the Part 92 and the ICAO TIs.

The policy statement is an explanation of the operator's intention with regards to the carriage of DG, including whether they are a 'will-carry' or 'will-not-carry' operator. It needs to state:

- a) If a **'will-carry'** operator, which of these apply:
  - i. Carry DG under rule 92.11.
  - ii. Carry DG under the provisions for passengers and crew.
  - iii. Carry DG under helicopter specific provisions.
  - iv. Carry DG as underslung loads.
  - v. Carry DG shipped as cargo.
  - vi. Carry DG under other exceptions in the ICAO TIs such as DG carried for medical or veterinary use in flight.
- b) If a **'will-not-carry'** operator, which of these apply:
  - i. Carry DG under rule 92.11.
  - ii. Carry DG under the provisions for passengers and crew.
  - iii. Carry DG as underslung loads.
  - iv. Carry DG under other exceptions in the ICAO TIs such as DG carried for medical or veterinary use in flight.
- c) If packing DG either for company material or on behalf of a client is undertaken.
- d) If shipping DG either for company material or on behalf of a client is undertaken.

The policy section should include a reference to the primary reference material used by the organisation, either the ICAO TIs or IATA DGR<sup>3</sup>, and any other relevant documentation, such as the ICAO Emergency Response Guidance. It should also include the general carriage requirements of rule 92.7, and the prohibition of carrying forbidden DG IAW rule 92.9.

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<sup>3</sup> Note that it is not necessary to hold both documents.

## 4. Specific rule requirements

The following sections outline the expectations CAA has for the evidence a DG manual will include to show the operation meets specific rule requirements.

**Rule 92.11 Exceptions.** A description of how the operator will apply the requirements of rule 92.11 for:

- a) DG carried by police IAW their duties;
- b) Class 1 DG carried under the approval and supervision of a certified handler<sup>4</sup>;
- c) DG carried for the recreational use of a passenger.

This section must include the safety and emergency procedures established for each of the above, and a list of the specific DG items that may be carried.

**Rule 92.13 Carriage by a passenger or crew member.** Details of the DG that may be carried by a passenger or crew member, the allowable quantities, whether the DG may be carried as carry-on, checked baggage, or on one's person, and the procedures for informing passengers and crew of those requirements. These requirements can be a direct repeat of the information or tables contained in the ICAO TIs or IATA DGR, or may be an abbreviated version of those tables, listing only the applicable items.

The requirements of the ICAO TIs for documentation, marking, labelling, and packing do not apply to goods carried under this provision, except for reporting requirements for DG incidents which are still applicable. A clear distinction must be made between DG carried under 92.13, and DG carried under 92.11(c): if DG is carried under 92.11(c) then the full provisions of that rule must be applied.

**Rule 92.17 Custody of DG and Rule 92.181 Custody by Operator.** A description of how DG will be secured in the event of an incident or accident and who is responsible for this.

**Rule 92.51 Packaging requirements and Rule 92.55 Packing requirements.** An operator will not normally be involved in the packing of DG, however if they:

- pack company DG material, or
- intend to provide a DG packing service, then

details of the appropriate packaging procedures and materials are required.

**Rule 92.57 Marking requirements and Rule 92.59 Labelling requirements.** Details of how the marking and labelling requirements will be applied.

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<sup>4</sup> Reference in this section to a Certified Handler has the same meaning and intent as the Approved Handler referred to in Part 92. Introduction of the Health and Safety at Work (Hazardous Substances) Regulations 2017 replaced the term approved with certified.

**Rule 92.103 Offer of DG.** If the operator is going to act on behalf of a client for the offering of DG for transport by air, include a description of the process and responsibilities of the employee undertaking that duty including the required documentation. It would be appropriate to include a table or flowchart to show the required process.

**Rule 92.105 Dangerous goods transport document.** A description of the dangerous goods transport document(s) that will be accepted or used by the operator, with sample(s) attached.

**Rule 92.153 Acceptance of dangerous goods and Rule 92.155 Acceptance check.** Details of the process for accepting and inspecting DG, including a sample of the acceptance checklist. This may be the IATA Dangerous Goods Acceptance Checklist, or a company version.

**Rule 92.157 Aircraft loading restrictions.** Details of the loading of DG in different types of aircraft including the carriage of DG in the passenger cabin, cargo compartments, or cargo pods as applicable. This section must include restrictions on the types of DG that may be carried in a passenger cabin, or, if using the specific helicopter provisions contained in *AC 92-2, Carriage of dangerous goods*, what safety and emergency procedures are applicable to that operation. If applicable, provide the maximum allowable transport indices for radioactive materials and the maximum amount of dry ice permitted in each cargo hold.

**Rule 92.159 Incompatible dangerous goods and Rule 92.161 Separation, segregation, and security.** An explanation of the requirements for the separation, stowing, and securing of DG, and how this will be achieved. It would be appropriate to include a copy of the segregation table from the ICAO TIs or IATA DGR, or a similar guide to segregation.

**Rule 92.163 Loading inspection; Rule 92.165 Unloading inspection; Rule 92.167 Removal of damage or leakage; Rule 92.169 Infectious substances; Rule 92.171 Radioactive material.** A description of the inspections required, what should be looked for, and what actions will be taken if a damaged or leaking item of DG is discovered.

**Rule 92.173 Information to pilot-in-command.** Operators should provide information to the pilot-in-command (PIC) for the carriage of DG, including emergency procedures, and include their plan for how that information will be conveyed to the PIC, including a sample of the appropriate form or example of the electronic notification. The information provided to the pilot must include the drill code(s) from the *ICAO Doc 9481 Emergency Response Guidance for Aircraft Incidents Involving Dangerous Goods*, or any other document that provides similar information. Because of this, including the aircraft emergency response drills table from this document is recommended.

**Rule 92.175 Information to employees.** A description of how DG information will be conveyed to employees, including actions to be taken in the event of emergencies.

**Rule 92.177 Information in cargo acceptance areas and.** Details of signs or other methods of conveying DG information in cargo acceptance areas.

**Rule 92.179 Information to passengers.** A description of how DG information is conveyed to passengers, including locations of notices and as part of the booking or ticketing process.



## 5. Other requirements

**Training.** Details of the training that will be conducted for all personnel involved in the handling and carriage of DG, including the level of training required for different personnel, the training provider(s), the frequency of training, and training records. Competency standards for training and assessment may be described here, or in a company training manual. It is recommended that *AC92-1, Dangerous goods training*, is consulted.

**Notification and reporting.** A description of the required DG incident and accident notifications and reports, who is responsible for these, and what format the reports will be.

**Excepted DG.** A description of what DG may be carried under the exceptions that are contained in the ICAO TIs, and any special procedures that apply to these exceptions. Examples of these include:

- d) DG carried for medical use in flight.
- e) DG carried for veterinary use in flight.
- f) DG carried to provide aid in connection with search and rescue operations during flight.

## Appendix A: DG Manual (Sample) Will-carry operator

Definitions	
<b>Approval</b>	An authorisation granted by CAA to carry DG that is otherwise forbidden, where the ICAO TIs state that an approval may be granted.
<b>Baggage</b>	Personal property of a passenger or crew member carried on an aircraft with that person.
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<b>Dangerous Goods Declaration (DGD)</b>	The IATA Dangerous Goods Transport Document.
<b>Exception</b>	A provision contained within the ICAO TIs which excludes a specific item of DG from requirements normally applicable to that item.
<b>Exemption</b>	An authorisation, other than an approval, granted by CAA providing relief from the requirements of the ICAO TIs. <sup>5</sup>
<b>IATA DGR</b>	The International Air Transport Association's Dangerous Goods Regulations.
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<b>Notification to Captain (NOTOC)</b>	The document that advises the pilot in command of DG loaded in the aircraft, including emergency response codes.
<b>Will-carry</b>	An operator who carries DG as cargo.
<b>Will-not-carry</b>	An operator who elects not to carry DG as cargo. A will-not-carry operator may still carry DG under other provisions, such as DG carried by passengers and crew.

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<sup>5</sup> An exemption is provided for in S37 of the CA Act 1990. An exemption is also provided for in the ICAO TIs, but any request for a DG exemption will be considered as a S37 exemption.

<b>Abbreviations</b>	
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<b>DGD</b>	Dangerous Goods Declaration
<b>DGR</b>	Dangerous Goods Regulations
<b>Doc</b>	Document
<b>DOC</b>	Department of Conservation
<b>EQ</b>	Excepted quantity
<b>ERG</b>	Emergency response guidance
<b>g</b>	Gram
<b>G</b>	Gross mass
<b>IATA</b>	International Airline Transport Association
<b>IAW</b>	In accordance with
<b>ICAO</b>	International Civil Aviation Organisation
<b>kg</b>	Kilogram
<b>L</b>	Litre
<b>Max</b>	Maximum
<b>mg</b>	Milligram
<b>mL</b>	Millilitre
<b>N/A</b>	Not applicable
<b>n.o.s</b>	Not otherwise specified
<b>NOTOC</b>	Notification to Captain
<b>PED</b>	Personal Electronic Device
<b>PI</b>	Packing Instruction
<b>Pkg</b>	Package
<b>PSN</b>	Proper Shipping Name
<b>Qty</b>	Quantity
<b>SMS</b>	Safety Management System
<b>S.P.</b>	Special Provision
<b>TIs</b>	Technical Instructions
<b>UN</b>	United Nations
<b>v</b>	Volt
<b>Wh</b>	Watt-hour

## Part 1: Policy and general requirements

### 1. Policy and Authorisation

ABC Aviation carries Dangerous Goods (DG) as part of its everyday activities. The company has elected to be a 'will-carry' operator, with the policies and procedures in place, and staff trained, to carry DG as cargo when required. DG may be carried in ABC Aviation aircraft under the following provisions:

- a. DG carried in accordance with the airworthiness or operational requirements of the CARs. (Rule 92.1(b)).
- b. DG carried under the exceptions of Rule 92.11:
  - i. DG carried by police in the performance of their duties, 92.11(a), and
  - ii. DG carried for the recreational use of a passenger, 92.11(c).
- c. DG carried by passengers and crew. (Rule 92.13).
- d. DG shipped, accepted, and carried as cargo.

Each of these is explained in the following paragraphs and if any staff members have any concerns regarding the carriage of DG or are unsure of the correct procedures, they are to raise these concerns with the CEO prior to accepting, handling, or otherwise dealing with the DG.

The primary reference for carriage of DG by air is the *ICAO Doc 9284 Technical Instructions for the Safe Transport of Dangerous Goods by Air* (ICAO TIs). The relevant information required by ABC Aviation is taken from AC 92-2 which uses the relevant information from the ICAO TIs. All staff can refer to AC 92-2 when required. Should ABC Aviation be asked to carry DG cargo that is not included in AC 92-2, the required information will be obtained from a DG Subject Matter Expert prior to accepting the cargo for carriage.

### 2. General carriage requirements

*Rule 92.7*

DG must be classified, documented, certificated, described, packaged, marked, labelled, and be in a suitable condition for shipment IAW the requirements of the ICAO TIs. DG may only be carried in an aircraft if it is accepted, handled, and carried IAW with the ICAO TIs or under the exceptions in Part 92, as detailed in this DG manual.

### 3. Forbidden dangerous goods, approvals, and exemptions.

*Rule 92.9*

DG must not be carried if it is forbidden for carriage by air under the ICAO TIs. Some articles are forbidden for carriage under any circumstances.

However, other articles that are identified as being forbidden in columns 9 and 10, or 11 and 12, of the DG List in the ICAO TIs (including that article or substance described as not otherwise specified), may be approved for carriage by the Director of CAA (the Director). If a client presents DG for carriage that has been approved by the Director, they are required to present a copy of the approval document, along with copy of the DG transport document, and the DG item or substance. In all such cases the CEO's prior authorisation is required before the goods may be carried in an ABC aircraft, and any conditions or limitations contained in the approval must be followed.

The Director may issue an exemption for the carriage of DG under specific circumstances. If a client presents such DG for carriage, a copy of the exemption document, along with the DG transport document, must be presented at the same time. In all such cases the CEO's prior

authorisation is required before the DG may be carried in an ABC Aviation aircraft, and any conditions or limitations contained in the exemption must be followed.

#### **4. Articles or substances excluded from Part 92 requirements** *Rule 92.1(b), 92.1(c)*

Articles or substances that are required to be aboard an aircraft IAW the airworthiness or operational requirements of the CARs, or that are approved by the Director to meet special operational requirements, are not subject to the requirements of Part 92. However, articles and substances intended as replacements for such items must be shipped and carried as DG. Examples of such articles are:

- a. Dry cell batteries;
- b. Fire extinguishers;
- c. First-aid kits that contain DG items or substances; and/or
- d. Aircraft spare parts that are, or contain, DG.

This provision **does not** allow for the carriage of aviation fuel or agricultural chemicals in jerry cans or drums. Such carriage is to be done IAW the procedures below for carriage of DG as cargo.

#### **5. Carriage of radioactive materials.**

ABC Aviation does not carry radioactive materials.

### **Part 2: Part 92.11 Exceptions**

#### **6. Carriage of DG by Police.**

*Rule 92.11(a)*

A member of the police may carry DG in the course of that person's duties without complying with Part 92. It is expected that this provision will only be used if an urgent or emergency situation exists, or during a pre-planned police tactical operation. If ABC Aviation carries police using this provision of the rules, the following conditions will be met:

- a. The police must be on duty and carrying the DG IAW those duties; and
- b. The aircraft must be used only for police purposes: no non-police passengers may be carried.

In addition, before the flight:

- c. The DG items are to be listed on the NOTOC form (Appendix E),
- d. The pilot is to sight the DG and confirm that it is in a suitable condition for carriage, ensuring that:
  - i. All DG, in particular ammunition and explosive devices, are securely packed and carried in such a manner that it/ they cannot become free or loose in the aircraft;
  - ii. Explosive articles, incendiary devices, pepper-sprays, and other items that have initiation devices or fuses have safety devices fitted and be carried in such a manner that they are unable to be activated without deliberate intent.

A list of probable DG items that police may carry is listed at Appendix A. ABC Aviation has conducted a risk assessment of DG carriage including the items in that list: the risk assessment can be located in the Hazard and Risk Register.

## **7. Carriage of Class 1 DG under Rule 92.11(b).**

*Rule 92.11(b)*

The provision for carriage of class 1 DG without complying with Part 92 exists for use during avalanche control duties. ABC Aviation does not conduct such flights, and any carriage of class 1 explosives will be conducted in accordance with Part 92 and the ICAO TIs.

## **8. Carriage of DG by passengers for their recreational use.**

*Rule 92.11(c)*

Part 92.11(c) allows DG to be carried by passengers for their recreational use, without complying with Part 92 and the ICAO TIs. Flights using this provision must be VFR only, and only passengers associated with the DG may be carried. (It is not acceptable to mix different groups such as a scenic flight passenger and a party of hunters.). DG that can be accepted by ABC Aviation for carriage under this provision is listed at Appendix B. When this provision is utilised, the following procedures are to be applied:

- a. The pilot is to brief the passengers on what constitutes DG and require that all DG be separated from other bags or backpacks, and presented for inspection;
- b. Each item of DG is to be identified and listed the NOTOC form at Appendix E;
- c. The DG must be inspected to ensure it is in proper condition for carriage, in particular:
  - i. All items and all packaging are free from damage;
  - ii. There is no leakage of fluids, gas, or other material;
  - iii. There are no signs of corrosion on cylinders or metal containers;
  - iv. All gas bottles, diving tanks, or cylinders are checked for testing date;
  - v. All plastic jerry cans or bottles are in new or near-new condition; and
  - vi. All containers are suitable for their contents.
- d. All DG must be secure in its packaging and unable to become loose in flight;
- e. DG may be packed together in suitable containers, but DG that is required to be segregated must be packed into its own container;
- f. DG must be loaded into the aircraft so that it is secure and will not be affected by manoeuvres or turbulence, and containers that require to be upright must be loaded with the correct orientation.

### **Part 3: Carriage of DG by passengers and crew**

## **9. Carriage of DG by passengers and crew**

*Rule 92.13*

DG may be carried by passengers and crew on the conditions that the goods are:

- a. Carried in carry-on baggage, checked baggage, or on the person;
- b. Permitted in the table attached at Annex C; and
- c. For personal use only.

The requirements of the ICAO TIs for documentation, marking, labelling, and packing do not apply to goods carried under this provision, except for the reporting requirements for DG incidents which are still applicable.

For the purposes of ABC Aviation's carriage of DG the definition of checked baggage is baggage that is to be loaded in a cargo hold or cargo pod that is not accessible to the passenger or crew in flight. DG items that must be in carry-on baggage or on the person, which are not allowed in checked baggage, must be loaded such that they are accessible in flight.

## Part 4: Carriage of DG as cargo

### 10. Offer of goods. *Rules 92.15, 92.51, 92.55, 92.57, 92.29, 92.101, 92.103, 92.105*

When any items are presented for carriage in ABC Aviation aircraft that are not postal articles, checked baggage, or carry-on baggage, the person presenting the items must sign a document which accurately describes the items or states that the items are not DG. Staff need to bear in mind that persons presenting items may not know what constitutes DG and be vigilant in monitoring for hidden DG (either deliberately or inadvertently), or mis-declared DG. The document to use for this is ABC form xxx.

When DG is presented for carriage in ABC Aviation aircraft as cargo, the person offering the DG (a DG shipper) is required to have complied with Part 92 subpart C which includes the requirements to ensure that:

- a. The DG is not forbidden under the ICAO TIs;
- b. The DG is certified as required under Part 92;
- c. The DG is packaged, packed, marked, and labelled as detailed in Part 92;
- d. The DG is accompanied by a dangerous goods transport document (if required by the TIs); and
- e. They have otherwise complied with the ICAO TIs.

The DG transport document that ABC Aviation accepts is the IATA Dangerous Goods Declaration (DGD) which must be presented accurately and fully completed and signed and dated by the DG shipper. The DGD includes the declaration required by rule 92.105(2).

It is common practice for clients to present DG for carriage by air without understanding the requirements for offering DG, nor the ability to engage the services of a qualified DG shipper (due to the remote nature of ABC Aviation's operations). In this case, suitably trained, qualified, and competent staff may complete the requirements for the offer of DG on behalf of the client. The process that ABC will apply in these circumstances is described in Appendix D.

For helicopter specific procedures from remote aerodromes, refer to Appendix H.

### 11. Acceptance of DG. *Rules 92.153, 92.155, 92.163*

DG that is offered to ABC Aviation for carriage by air as cargo is to be processed using the acceptance checklist at Appendix E. A copy of the acceptance checklist and the DGD are to be kept for a minimum of six months. By using the checklist, the acceptance person will ensure that:

- a. Two copies of the DGD have been received, correctly completed, signed, and dated;
- b. The information in the DGD accurately reflects the DG and the packaging;
- c. The DG is marked and labelled correctly;
- d. The DG is inspected paying attention to:
  - i. Leakage;
  - ii. Damage;
  - iii. Contamination on the exterior of the package; and
  - iv. Clearly visible marks and labels.

If the DGD or the inspection indicate that the DG is not acceptable in all respects it is to be returned to the shipper or client, along with a copy of the acceptance checklist indicating the reason for rejection.

For helicopter specific procedures from remote aerodromes, refer to Appendix H.

## **12. Loading, stowage, and unloading**

*Rules 92.161, 92.163, 92.165, 91.167*

DG must be inspected immediately prior to loading and found free from evidence of leakage or damage. It must be stowed in the aircraft in a way that ensures that:

- a. Packages of poisons and infectious substances are stowed IAW the TIs; and
- b. The DG is protected from being damaged; and
- c. The DG is secured in a manner that will prevent any movement in flight which would change the orientation of the packages.

When unloading DG an inspection is to be conducted to check for signs of damage or leakage. If evidence of damage or leakage is found the area of the aircraft where the DG was stowed must be inspected for damage or contamination and any hazardous contamination removed.

## **13. Loading restrictions**

*Rules 92.13, 92.157*

### **a. Loading of all aircraft.**

DG must not be carried in the cabin of an aircraft occupied by passengers or on the flight deck, except under the following two provisions.

Firstly, a passenger or crew member may carry DG as carry-on or checked baggage or on their person if permitted to do so under the ICAO TIs. This applies to the carriage of DG by passengers and crew as detailed in paragraph 9 above.

Secondly, for the carriage of all other DG, only the following DG may be carried in the cargo compartment of the passenger cabin:

- i. Class 1, Division 1.4, Compatibility Group S explosives;
- ii. Class 2, Division 2.2, non-flammable, non-toxic gas;
- iii. Class 3, flammable liquids, Packing Group III;
- iv. Class 4, Division 4.1, flammable solids, Packing Group III;
- v. Class 5, Division 5.1, oxidising substances, Packing Group III;
- vi. Class 6, Division 6.1, poisonous substances, Packing Group III;
- vii. Class 8, Packing Group III substances; and/ or
- viii. Class 9, miscellaneous goods.

### **b. Loading of cargo-only aircraft:**

The loading restrictions above apply to DG cargo on cargo-only aircraft: unless the DG cargo is included in the list (a) (i-viii) above, then it must not be carried in the passenger cabin, in the cargo compartment of the passenger cabin, or on the flight deck. In aircraft where the flight deck is the same space as the passenger cabin (there is no separation to restrict fumes, smoke, etc) then DG that is not in the list above must be carried in a cargo compartment that is separated: for example, the rear baggage locker or an external cargo pod.

DG packages that are required to be carried on cargo-only aircraft must be labelled "Cargo Aircraft Only" (CAO) and must not be carried on aircraft with passengers. Generally, dangerous goods bearing the CAO label may only be carried as a helicopter



external load. However, the following dangerous goods bearing a CAO label may be carried in the aircraft, bearing in mind the restrictions on loading locations above:

1. UN 3529, Engine, internal combustion, flammable gas powered or Engine, fuel cell, flammable gas powered or Machinery, internal combustion, flammable gas powered or Machinery, fuel cell, flammable gas powered;
2. Flammable liquids (Class 3), Packing Group III, other than those with a subsidiary hazard of Class 8
3. UN 3528, Engine, internal combustion, flammable liquid powered or Engine, fuel cell, flammable liquid powered or Machinery, internal combustion, flammable liquid powered or Machinery, fuel cell, flammable liquid powered;
4. Toxic substances (Division 6.1) with no subsidiary hazard other than Class 3;
5. Infectious substances (Division 6.2);
6. Miscellaneous dangerous goods (Class 9).

#### **14. Incompatible DG, separation, segregation, and security**

*Rules 92.159, 92.161*

Items of DG that might react dangerously with each other must not be stowed near to each other. Particular attention should be paid to DG that might be a source of heat (such as lithium batteries) and DG that is flammable or may emit flammable vapour. A segregation table is attached as Appendix F, which details the minimum segregation requirements for different classes and divisions of DG.

In particular, the following standards are to be applied:

- a. Packages of poisons and infectious substances must be stowed IAW the instructions contained in the ICAO TIs.
- b. DG must be protected from damage during the loading process.
- c. DG must be stowed to prevent any movement in flight and in particular to ensure that the orientation of packages that need to remain upright does not change.

#### **15. Infectious substances**

*Rules 92.169, 92.171*

In the event of damage to, or a leak or contamination from, a package containing an infectious substance the primary responsibility of all staff is the safety of passengers and crew. If necessary, the only action may be to vacate the area and seek specialist assistance. If it is considered safe to do so the following procedures apply.

Where any package containing infectious substances appears to be damaged or leaking:

- a) Avoid handling the package or, if necessary, keep handling to a minimum and use appropriate PPE.
- b) Inspect adjacent packages, baggage or other cargo, for contamination and put aside any that may be contaminated.
- c) Inform the appropriate public health or veterinary authority.
- d) Notify the consignor or the consignee.
- e) Notify any persons who could interact with contaminated material, or need to inspect the aircraft.
- f) Notify and report IAW paragraph 19 (below).

## **Part 5: Communication and notification requirements**

### **16. Information to the pilot-in-command**

*Rule 92.173*

For all flights carrying DG as cargo a Notification to Captain (NOTOC) must be handed to the pilot prior to flight, detailing the DG on board and the emergency response guidance. The NOTOC form is attached to the acceptance form at Appendix E and is to be filled in using the information detailed on the DGD and the emergency response guidance from Appendix G. A copy of the DGD is to be attached to the NOTOC, and the pilot is to ensure that these forms are carried in the cockpit in an easily accessible location.

The PIC is to be provided with emergency response information from Appendix G that is specific to the type of DG carried.

### **17. Information to employees**

*Rule 92.175*

All employees of ABC Aviation are to have read this DG manual before taking part in any actions involving DG. Employees who have a role in the handling and carriage of DG will receive DG training (detailed below) and have access to AC 92-2 and this manual at all times when involved in the handling of DG.

### **18. Information to the public and passengers**

*Rule 92.177, 92.179*

Passengers must be informed of the type of goods that they are prohibited from carrying aboard an aircraft. This information is conveyed in the following manner:

- a. CAA DG notices being prominently displayed in the reception area and hangar;
- b. DG information being included as part of all pre-flight passenger safety briefings; and
- c. DG information being included during the booking process for all advance bookings, particularly for outdoor recreation groups, contractors, and DOC staff.

The reception area and hangar also serve as the cargo acceptance area, and the display of the CAA DG notices in those areas satisfies the requirement to display notices in cargo acceptance areas.

### **19. Notification, reporting, and custody requirements** *Rule 12.51, 12.55, 92.17, 92.181*

When an incident or accident occurs that involves DG or where DG is being carried, whether or not it is apparent that the DG contributed to the incident or accident, the DG is to be deemed to be in the custody of the Director of CAA. Any staff involved in such an event are to take reasonable measures to secure the DG until it is taken into possession by CAA, or CAA advises that the DG is no longer needed.

A DG incident is defined as an incident associated with and related to the carriage of DG by air, after acceptance by the operator, that:

- a. results in injury to a person, property damage, fire, breakage, spillage, leakage of fluid or radiation;
- b. involves, or other evidence that the integrity of the packaging has not been maintained; or

- c. involves dangerous goods incorrectly declared, packaged, labelled, marked, or documented.

If a DG accident or incident occurs, the notification and reporting requirements of Part 12 apply. Details of these requirements are found in the company SMS Manual. In summary:

- a. If the incident is a serious incident or is an immediate hazard to the safety of an aircraft operation, the Safety Manager is to notify CAA as soon as practicable;
- b. In the absence of the Safety Manager, any person involved in the incident should notify CAA as soon as practicable;
- c. All notification is to include the date and time of the incident, brief details, and the name and contact details of both the organisation and the person reporting the incident;
- d. A CA005 report is to be submitted to CAA within 14 days by the Safety Manager.

## **20. Dangerous goods training**

*Rule 92.203, 92.205*

DG training is required for all ABC Aviation personnel prior to any involvement in DG activities. The Training Manager is responsible for arranging initial DG training for new employees, and for DG recurrent training each two years IAW Part 92. All DG training will be conducted by either CAA or a contracted Part 141 organisation with a DG training approval.

Competency standards for DG training and assessment are compiled by the Safety Manager and Training Manager and forwarded to the approved DG training provider. Competency standards are defined for four basic areas as:

- a. DG basic training: All personnel require DG basic training as a minimum.
- b. DG shipper training: ABC Aviation staff involved in the offering of DG (on behalf of a client) require specific DG training for the offering of DG for carriage by air.
- c. DG acceptance training: Personnel involved in accepting DG for carriage by air require specific training in the DG acceptance procedure.
- d. DG carriage: Pilots and groundcrew involved in loading, carrying, and unloading DG require specific training in the carriage of DG by air.

While the competency standards are defined for the roles that personnel fulfil, they also are designed around the types of DG that ABC Aviation carry and the operating environment of the company.

## Appendix A – Annex A: DG Carried by police in accordance with their duties.


Common Name	UN #	Class or division	Proper Shipping Name	Notes
Alcohol hand sanitiser	1170	3	Ethanol, or Ethanol solution	
Alcohol hand sanitiser	1219	3	Isopropanol	
Alcohol wipes	3175	4.1	Solids containing flammable liquids	75% alcohol disinfectant wipes
Ammunition	0012	1.4S	Cartridges, small arms	Ammunition consisting of a centre fire or rim fire primer and containing both a propelling charge and solid projectile, calibre less than 19.1mm. Includes shotgun cartridges of any calibre.
Batteries and Lithium batteries	2800 2794 2795 3171 3171 3480 3481  3481 3090 3091 3091	8 8 8 9 9 9 9  9 9 9 9	Batteries, wet, non-spillable Batteries, wet, filled with acid Batteries, wet, filled with alkali Battery powered equipment Battery powered vehicle Lithium ion batteries Lithium ion batteries contained within equipment Lithium ion batteries packed with equipment Lithium metal batteries Lithium metal batteries contained within equipment Lithium metal batteries packed with equipment	Contained within: Radios; GPS receivers; Computers; Photography equipment; Drones; Power tools; EPIRBs; Sonar; Radio repeaters.  Includes spare batteries.
Cylinders	1956	2.2	Compressed gas, n.o.s.	Diving cylinders
Detonators	0360	1.1B	Detonator assemblies, non-electric, for blasting	
Distraction device	0410	1.4D	Fuses, detonating	
Explosive charges	0065	1.4D	Cord, detonating	
Explosive charges	0084	1.1D	Explosive, blasting, type D	
Explosive charges	0288	1.1D	Charges, shaped, flexible, linear	
First aid kit	3316	9	First aid kit	May contain one or more compatible items of DG used for medical purposes


Common Name	UN #	Class or division	Proper Shipping Name	Notes
Fuel	1223	3	Kerosene	Fuel for camp stoves, generators, powered tools, etc
Fuel	1299	3	Turpentine	Fuel for camp stoves, generators, powered tools, etc
Fuel	1300	3	Turpentine substitute	White spirits: fuel for camp stoves
Fuel	1203	3	Gasoline	Fuel for camp stoves, generators, powered tools, etc
Fuel	1203	3	Petrol	Fuel for camp stoves, generators, powered tools, etc
Fuel	1203	3	Motor spirit	Fuel for camp stoves, generators, powered tools, etc
Gas cannisters	1954	2.1	Compressed gas, flammable, n.o.s.	Gas cannisters for camp stoves
Gas cannisters	2037	2.1	Receptacles, small, containing gas	Flammable gas, without a release device, non-refillable
Generator	3528	3	Machinery, internal combustion, flammable liquid powered	
Grenades	0301	1.4G (6.1,8)	Ammunition, tear producing	
Oxygen	1072	2.2 (5.1)	Oxygen, compressed	Medical oxygen Oxygen for ultra-thermic cutting lance
Pepper spray	1950	2.2	Aerosols, non-flammable	
Portable Electronic Devices (PEDs)	See batteries above			
Smoke grenade	0303	1.4G	Ammunition, smoke	
Stun grenade	0431	1.4G	Articles, pyrotechnic	
Tasers	1066	2.2	Nitrogen, compressed	


## Appendix A - Annex B: DG Carried by passengers for recreational use


Item	Quantity	Notes
Ammunition	5 kg per passenger	Secure in ammunition belt or original box. Quantity may not be aggregated among passengers.
Camping gas	500 g max per can 1 kg max per package	Butane or butane mix only (no propane or isobutane) Must be self-sealing Must be detached from stove
Diesel	20 L max per jerry can	
Fire lighters	1 kg max per flight	
Fly Spray	1 L	Each non-refillable metal container must not exceed 1 L capacity. Each non-refillable plastic aerosol must not exceed 120 mL capacity. The release valve must be protected from inadvertent release.
Kerosene	20 L max per jerry can	
Matches		Strike anywhere matches are not permitted. Must be tightly and securely packed to prevent movement within the package.
Petrol	5 L max per jerry can	
White Spirits	5 L max per jerry can	

## Appendix A - Annex C: DG Carried by passengers and crew


<b>Batteries: spare/loose and Lithium batteries: spare/loose including power banks</b>			
Includes lithium batteries, non-spillable batteries, nickel-metal hydride batteries, and dry batteries for portable electronic devices. Articles which have the primary purpose as a power source (power banks) are considered spare batteries.			
	Packaging	Quantity	Notes
	Must be individually protected to prevent short circuits.	Maximum 20 spare batteries per person. The operator may approve the carriage of more than 20 batteries.	Lithium metal batteries must not exceed 2 g of lithium content. Lithium ion batteries must not exceed 100 Wh. Non-spillable wet batteries must be capable of withstanding vibration and pressure tests, maximum 2 per person, not exceeding 12 v and 100 Wh, battery terminals protected.
<b>Approval of operator required</b>	<b>Permitted as checked baggage</b>	<b>Permitted as carry-on baggage</b>	<b>PIC informed of location</b>
No	No	Yes	No


<b>Lithium batteries spare/loose</b>			
	Packaging	Quantity	Notes
	Batteries must be individually protected to prevent short circuits.	Maximum 2 spare batteries.	Lithium ion batteries exceeding 100 Wh but not exceeding 160 Wh. For medical devices only, lithium metal batteries with lithium metal content exceeding 2 g but not exceeding 8 g. Batteries must meet UN test criteria
<b>Approval of operator required</b>	<b>Permitted as checked baggage</b>	<b>Permitted as carry-on baggage</b>	<b>PIC informed of location</b>
Yes	No	Yes	No


<b>Lithium batteries: Portable electronic devices (PED) containing lithium metal or lithium ion cells or batteries</b>			
Includes medical devices such as portable oxygen concentrators, and consumer electronics such as cameras, mobile phones, laptops, and tablets.			
	<b>Packaging</b>	<b>Quantity</b>	<b>Notes</b>
	Devices in checked baggage must be completely switched off and must be protected from damage.	Maximum 15 PED per person. The operator may approve the carriage of more than 15 PED.	Lithium metal content must not exceed 2 g. Lithium ion batteries must not exceed 100 Wh each
<b>Approval of operator required</b>	<b>Permitted as checked baggage</b>	<b>Permitted as carry-on baggage</b>	<b>PIC informed of location</b>
No	Yes	Yes	No


<b>Lithium battery powered electronic devices</b>			
Includes portable medical electronic devices, power tools, video cameras, laptops, etc.			
	<b>Packaging</b>	<b>Quantity</b>	<b>Notes</b>
	Devices in checked baggage must be completely switched off (not in hibernation or sleep mode). Must be protected from damage. Must be protected from inadvertent activation.	Maximum 15 PED per person.	Lithium ion batteries exceeding 100 Wh but not exceeding 160 Wh. For medical devices only, lithium metal batteries with lithium metal content exceeding 2 g but not exceeding 8 g. Batteries must meet UN testing criteria.
<b>Approval of operator required</b>	<b>Permitted as checked baggage</b>	<b>Permitted as carry-on baggage</b>	<b>PIC informed of location</b>
Yes	Yes	Yes	No





<b>Alcoholic Beverages</b>			
	<b>Packaging</b>	<b>Quantity</b>	<b>Notes</b>
	In retail packaging	Maximum per receptacle 5 L Total quantity per person 5 L	More than 24% but less than 70% alcohol by volume
<b>Approval of operator required</b>	<b>Permitted as checked baggage</b>	<b>Permitted as carry-on baggage</b>	<b>PIC informed of location</b>
No	Yes	Yes	No


<b>Ammunition</b>			
	<b>Packaging</b>	<b>Quantity</b>	<b>Notes</b>
	Securely packaged. Allowances for more than one person must not be combined into one or more packages.	Not exceeding 5 kg gross weight per person.	Division 1.4S only. For that person's own use only. Excludes ammunition with explosive or incendiary projectiles.
<b>Approval of operator required</b>	<b>Permitted as checked baggage</b>	<b>Permitted as carry-on baggage</b>	<b>PIC informed of location</b>
Yes	Yes	No	No


<b>Avalanche rescue backpack</b>			
	<b>Packaging</b>	<b>Quantity</b>	<b>Notes</b>
	Packed so that it cannot be inadvertently activated.	One per person.	Containing cartridges of division 2.2 compressed gas, may be fitted with trigger containing no more than 200 mg net of division 1.4S. Must be fitted with pressure relief valves.
<b>Approval of operator required</b>	<b>Permitted as checked baggage</b>	<b>Permitted as carry-on baggage</b>	<b>PIC informed of location</b>
Yes	Yes	Yes	No


<b>Camping stoves and fuel containers that have contained flammable liquid fuel</b>			
	<b>Packaging</b>	<b>Quantity</b>	<b>Notes</b>
	Cap securely fastened. Wrapped in absorbent material and placed in a sealed polyethylene or equivalent bag.	No limit	Must be completely drained and action taken to nullify the danger.
<b>Approval of operator required</b>	<b>Permitted as checked baggage</b>	<b>Permitted as carry-on baggage</b>	<b>PIC informed of location</b>
Yes	Yes	No	No


<b>Dry Ice (solid carbon dioxide)</b>			
	<b>Packaging</b>	<b>Quantity</b>	<b>Notes</b>
	Baggage must permit release of CO2 gas. Checked baggage must be marked 'dry-ice' or 'carbon-dioxide, solid'.	Maximum 2.5 kg per person, when used to pack perishables.	Net weight of dry ice marked on package, or an indication that there is less than 2.5 kg.
<b>Approval of operator required</b>	<b>Permitted as checked baggage</b>	<b>Permitted as carry-on baggage</b>	<b>PIC informed of location</b>
Yes	Yes	Yes	No


<b>E-cigarettes (Includes e-cigars, e-pipes, personal vaporisers, electronic nicotine delivery systems).</b>			
	<b>Packaging</b>	<b>Quantity</b>	<b>Notes</b>
	Measures must be taken to prevent unintentional activation of the heating element while on board the aircraft.	No limit	Re-charging on board aircraft is not permitted.
<b>Approval of operator required</b>	<b>Permitted as checked baggage</b>	<b>Permitted as carry-on baggage</b>	<b>PIC informed of location</b>
No	No	Yes	No


<b>Gas cartridges, small non-flammable</b>			
	<b>Packaging</b>	<b>Quantity</b>	<b>Notes</b>
		Personal safety device packed so that it cannot be inadvertently activated.	Maximum 2 small cartridges fitted to a self-inflating personal safety device such as a lifejacket. Not more than 2 devices per passenger and 2 spare cartridges per device. For other devices, max. 4 cartridges, capacity not exceeding 50 mL water (equivalent to a 28 g gas cartridge).
<b>Approval of operator required</b>	<b>Permitted as checked baggage</b>	<b>Permitted as carry-on baggage</b>	<b>PIC informed of location</b>
Yes	Yes	Yes	No


<b>Gas cylinders: non-flammable, non-toxic, worn for the operation of mechanical limbs</b>			
	<b>Packaging</b>	<b>Quantity</b>	<b>Notes</b>
		Worn with the limb.	As required by the limb.
<b>Approval of operator required</b>	<b>Permitted as checked baggage</b>	<b>Permitted as carry-on baggage</b>	<b>PIC informed of location</b>
No	Yes	Yes	No


<b>Hair styling equipment containing a hydrocarbon gas cartridge</b>			
	<b>Packaging</b>	<b>Quantity</b>	<b>Notes</b>
		Safety cover must be securely fitted over the heating element.	1 per passenger or crew member.
<b>Approval of operator required</b>	<b>Permitted as checked baggage</b>	<b>Permitted as carry-on baggage</b>	<b>PIC informed of location</b>
No	Yes	Yes	No


<b>Internal combustion or fuel cell engines</b>			
	<b>Packaging</b>	<b>Quantity</b>	<b>Notes</b>
	Flammable liquid powered internal combustion or fuel cell engines being carried separately or incorporated into a machine or other apparatus, without batteries or other DG, must comply with the conditions that: <ol style="list-style-type: none"> <li>The engine is powered by a fuel that is not a DG; or</li> <li>The fuel tank has never contained any fuel, or the fuel has been flushed and the tank purged of vapours and adequate measures taken to nullify the hazard; and</li> <li>The passenger provides documentation that the flushing and purging procedure has been followed, and;</li> <li>The entire fuel system has no free liquid and all fuel lines are sealed or capped or securely connected.</li> </ol>		
<b>Approval of operator required</b>	<b>Permitted as checked baggage</b>	<b>Permitted as carry-on baggage</b>	<b>PIC informed of location</b>
No	Yes	No	No


<b>Matches, safety, or small cigarette lighter</b>			
	<b>Packaging</b>	<b>Quantity</b>	<b>Notes</b>
	One small packet, or one small lighter. Only if carried by an individual who intends to use the item. Lighter must not contain unabsorbed liquid fuel, other than liquified gas. Lighter fuel and lighter refills are not permitted. Strike anywhere matches, blue flame lighters, cigar lighters, are not permitted. Cigarette lighters should have two independent actions by the user to activate ignition. Cigarette lighters powered by lithium batteries without a safety cap or means of protection against inadvertent activation are not permitted.		
<b>Approval of operator required</b>	<b>Permitted as checked baggage</b>	<b>Permitted as carry-on baggage</b>	<b>PIC informed of location</b>
No	No	On one's person only	No


<b>Mobility aids/wheelchairs with non-spillable wet batteries, nickel metal hydride batteries, or dry batteries</b>			
	<b>Packaging</b>	<b>Quantity</b>	<b>Notes</b>
		Mobility aid must be prepared to prevent inadvertent activation. Mobility aid secured and protected from damage. Any spare batteries, batteries that are removed must be carried in strong rigid packaging in cargo compartment.	May carry one spare wet non-spillable battery, or two spare nickel-metal hydride or dry batteries.
<b>Approval of operator required</b>	<b>Permitted as checked baggage</b>	<b>Permitted as carry-on baggage</b>	<b>PIC informed of location</b>
Yes	Yes	No	Yes


<b>Mobility aids/wheelchairs with spillable batteries</b>			
	<b>Packaging</b>	<b>Quantity</b>	<b>Notes</b>
		Mobility aid must be prepared to prevent inadvertent activation. Mobility aid secured and protected from damage, battery securely attached and electrical circuits isolated, or, removed if the wheelchair is unable to be carried upright. If battery removed, packaging must be marked 'BATTERY-WET with WHEELCHAIR' and with corrosive and orientation labels.	May carry one spare wet non-spillable battery, or two spare nickel-metal hydride or dry batteries.
<b>Approval of operator required</b>	<b>Permitted as checked baggage</b>	<b>Permitted as carry-on baggage</b>	<b>PIC informed of location</b>
Yes	Yes	No	Yes

<b>Mobility/wheelchairs aids with lithium batteries</b>			
	<b>Packaging</b>	<b>Quantity</b>	<b>Notes</b>
	Mobility aid must be prepared to prevent inadvertent activation. Mobility aid secured and protected from damage. Battery adequately protected from damage by the design of the mobility aid, and securely attached to the mobility aid, or removed from the mobility aid.	Passenger may carry one spare battery not exceeding 300 Wh or two spare batteries not exceeding 160 Wh.	Battery must meet UN test criteria. Battery terminals prevented from short circuit. Each battery removed from the mobility aid must not exceed 300 Wh. Any removed batteries or spare batteries must be carried in the passenger cabin and protected from damage.
<b>Approval of operator required</b>	<b>Permitted as checked baggage</b>	<b>Permitted as carry-on baggage</b>	<b>PIC informed of location</b>
Yes	Yes	No	Yes

<b>Non-radioactive medicinal or toiletry articles (including aerosols)</b>			
Including hairsprays, perfumes, colognes, medicines containing alcohol, and non-flammable non-toxic aerosols with no subsidiary hazard, for sporting or home use.			
	<b>Packaging</b>	<b>Quantity</b>	<b>Notes</b>
	Release valves on aerosols must be protected by a cap or other suitable means.	Total net quantity must not exceed 2 kg or 2 L. Net quantity of each article must not exceed 0.5 kg or 0.5 L.	
<b>Approval of operator required</b>	<b>Permitted as checked baggage</b>	<b>Permitted as carry-on baggage</b>	<b>PIC informed of location</b>
No	Yes	Yes	No

<b>Oxygen or air, gas cylinders for medical use</b>			
	<b>Packaging</b>	<b>Quantity</b>	<b>Notes</b>
		Cylinders valves and regulators must be protected from damage and inadvertent release.	Cylinder must not exceed 5 Kg gross weight.
<b>Approval of operator required</b>	<b>Permitted as checked baggage</b>	<b>Permitted as carry-on baggage</b>	<b>PIC informed of location</b>
Yes	Yes	Yes	Yes

<b>Thermometer, medical or clinical which contain mercury.</b>			
	<b>Packaging</b>	<b>Quantity</b>	<b>Notes</b>
		Packed in its protective case.	One per person for personal use.
<b>Approval of operator required</b>	<b>Permitted as checked baggage</b>	<b>Permitted as carry-on baggage</b>	<b>PIC informed of location</b>
No	Yes	No	No

<b>Thermometer or barometer, mercury filled</b>			
Carried by a representative of a government weather bureau or similar official agency			
	<b>Packaging</b>	<b>Quantity</b>	<b>Notes</b>
	Packed in strong outer packaging, with a sealed inner liner, or bag of strong leak-proof and puncture-resistant material impervious to mercury.	One per person.	Packaging must prevent escape of mercury regardless of position of package.
<b>Approval of operator required</b>	<b>Permitted as checked baggage</b>	<b>Permitted as carry-on baggage</b>	<b>PIC informed of location</b>
Yes	No	Yes	Yes

**Items in the ICAO TIs or IATA DGR not included above**

- Baggage with installed lithium batteries
- Chemical agent monitoring equipment
- Disabling devices (such as mace, pepper spray)
- Electroshock weapons
- Fuel cells contained in portable electronic devices
- Fuel cell cartridges, spare
- Insulated packaging containing refrigerated liquid nitrogen
- Permeation devices
- Radio isotopic cardiac pacemakers
- Security type equipment (attaché cases, cash boxes, etc fitted with lithium batteries or pyrotechnics)
- Specimens, non-infectious, packed with small quantities of flammable liquid



## Appendix A - Annex D: Offer of DG

This table details the process to be followed by any staff member offering DG for carriage by air on behalf of an ABC aviation client.

1.	Forbidden DG	Ensure that the DG is not forbidden for carriage under the ICAO TIs: a) Forbidden under any circumstances? b) Forbidden for carriage with passengers? c) Allowable quantity exceeded?
2.	Packing	Ensure that the DG is packed IAW the ICAO TIs. Ensure, unless the ICAO TIs provide another method of packaging, that: a) Packaging is as specified in the applicable tests; and b) Packaging conforms with the design and the methods of packaging as was tested.
3.	Marking	Ensure that the DG is marked IAW the ICAO TIs, including: a) Proper shipping name; b) UN number; c) Name and address of consignor and consignee; and d) All other markings required by the ICAO TIs.
4.	Labelling	Ensure that the DG is labelled IAW the ICAO TIs. Ensure that any hazard labels accurately describe the true nature of the hazards.
5.	Documentation	Complete the Dangerous Goods Transport Document (unless the ICAO TIs do not require the document). Sign and date the Dangerous Goods Transport Document.

## Appendix A - Annex E: Acceptance checklist and NOTOC

This checklist is to be completed by qualified staff who accept DG for carriage by air. An unacceptable answer requires the DG to be rejected and returned to the client with a copy of this checklist.

Item	Requirement	Yes/No/NA
1.	<b>Documentation:</b> 2 copies of the DGD correctly completed and signed	
2.	<b>Quantity:</b> quantity of DG indicated on DGD matches the goods provided.	
3.	<b>Quantity:</b> quantity of DG is within the limits for passenger or cargo only aircraft as applicable.	
4.	<b>Marking:</b> package(s) marked IAW description on the DGD.	
5.	<b>Marking:</b> marks are clearly visible.	
6.	<b>Marking:</b> package specification mark matches the packing group requirements of the packing instruction.	
7.	<b>Labelling:</b> hazard and handling labels correct.	
8.	<b>Overpacks:</b> marks and labels appearing on inner packages are correctly repeated on outer packaging.	
9.	<b>Packaging:</b> packaging used is permitted by the packing instruction.	
10.	<b>Segregation:</b> the outer package does not contain different classes/divisions of DG that require segregation.	
11.	<b>Condition:</b> the package is not leaking, is free from any visible damage, and there is no indication that its integrity is compromised.	

**DG acceptance:** I confirm that I have inspected the DG package(s) and the Dangerous Goods Transport Document IAW the checklist above, and that the shipment is acceptable for carriage by air in ABC's aircraft.

Name:

Date:

Signature:

### NOTOC

Date			Uplift location			Drop-off location		
UN#	PSN	Class	# & type of packages	PG	Quantity per package	Loading location	CAO?	Drill code

**Loader's acknowledgement:** I confirm that the DG listed above has been loaded in the locations indicated, that when loaded was free from any damage, leakage, or contamination, and that I am aware of the hazardous nature of the DG.

Name:

Date:

Signature:

**Pilot-in-command acknowledgement:** I confirm that I have received the above information.

Name:

Date:

Signature:

## Appendix A - Annex F: Segregation table

Packages containing DG which might react dangerously with one another must not be stowed on an aircraft next to each other or in a position that would allow interaction between them in the event of leakage. As a minimum, the segregation in the following table must be followed in order to maintain acceptable segregation. The segregation requirements apply whether the hazard is the primary or a subsidiary hazard.

**Table G-1: Segregation of Dangerous Goods**

Hazard Label	1 excl. 1.4S	2.1	2.2,2.3	3	4.1	4.2	4.3	5.1	5.2	8	9 see note 2
1 excl. 1.4S	Note 1	X	X	X	X	X	X	X	X	X	X
2.1	X	-	-	-	-	-	-	-	-	-	X
2.2,2.3	X	-	-	-	-	-	-	-	-	-	-
3	X	-	-	-	-	-	-	X	-	-	X
4.1	X	-	-	-	-	-	-	-	-	-	X
4.2	X	-	-	-	-	-	-	X	-	-	-
4.3	X	-	-	-	-	-	-	-	-	X	-
5.1	X	-	-	X	-	X	-	-	-	-	X
5.2	X	-	-	-	-	-	-	-	-	-	-
8	X	-	-	-	-	-	X	-	-	-	-
9 see note 2	X	X	-	X	X	-	-	X	-	-	-

**Notes:**

1. For segregation requirements of different divisions of explosives refer to the ICAO TIs or IATA DGR.
2. For segregation of lithium ion and lithium metal batteries refer to the ICAO TIs or IATA DGR. In general lithium ion and lithium metal batteries must not be stowed next to or close to packages containing Class 1 (other than 1.4(s)), Division 2.1, Class 3, Division 4.1, or Division 5.1 DG.

## Appendix A - Annex G: Aircraft Emergency Response Drills

Drill #	Inherent Hazard	Hazard to aircraft	Hazard to occupants	Spill or leak procedure	Firefighting procedure	Additional considerations
1	Explosion may cause structural failure	Fire and/or explosion	As indicated by the drill letter(s)	Use 100% oxygen, no smoking	All agents according to availability; use standard firefighting procedure	Possible abrupt loss of pressurisation
2	Gas, non-flammable, pressure may create hazard in fire	Minimal	As indicated by the drill letter(s)	Use 100% oxygen; establish and maintain maximum ventilation for 'A', 'I', or 'P' drill letter	All agents according to availability; use standard firefighting procedure	Possible abrupt loss of pressurisation
3	Flammable liquid or solid	Fire and/or explosion	Smoke, fumes, and heat, and as indicated by the drill letter	Use 100% oxygen; establish and maintain maximum ventilation; no smoking; minimum electrics.	All agents according to availability; no water on 'W' drill letter.	Possible abrupt loss of pressurisation
4	Spontaneously combustible or pyrophoric when exposed to air	Fire and/or explosion	Smoke, fumes, and heat, and as indicated by the drill letter	Use 100% oxygen; establish and maintain maximum ventilation	All agents according to availability; no water on 'W' drill letter.	Possible abrupt loss of pressurisation; minimum electrics if 'F' or 'H' drill letter
5	Oxidiser, may ignite other materials, may explode in heat of a fire	Fire and/or explosion, possible corrosion damage	Eye, nose, and throat irritation; skin damage on contact	Use 100% oxygen; establish and maintain maximum ventilation	All agents according to availability; no water on 'W' drill letter.	Possible abrupt loss of pressurisation
6	Toxic, may be fatal if inhaled, ingested, or absorbed by skin	Contamination with toxic liquid or solid	Acute toxicity, effects may be delayed	Use 100% oxygen; establish and maintain maximum ventilation; do not touch without gloves	All agents according to availability; no water on 'W' drill letter.	Possible abrupt loss of pressurisation; minimum electrics if 'F' or 'H' drill letter
7	Radiation from broken/unshielded packages	Contamination with spilled radioactive material	Exposure to radiation, and personnel contamination	Do not move packages, avoid contact	All agents according to availability	Call for a qualified person to meet the aircraft
8	Corrosive, fumes disabling if inhaled or in contact with skin	Possible corrosion damage	Eye, nose, and throat irritation; skin damage on contact	Use 100% oxygen; establish and maintain maximum ventilation; do not touch without gloves	All agents according to availability; no water on 'W' drill letter.	Possible abrupt loss of pressurisation; minimum electrics if 'F' or 'H' drill letter

Drill #	Inherent Hazard	Hazard to aircraft	Hazard to occupants	Spill or leak procedure	Firefighting procedure	Additional considerations
9	No general inherent hazard	As indicated by the drill letter	As indicated by the drill letter	Use 100% oxygen; establish and maintain maximum ventilation if 'A' drill letter	All agents according to availability	None
10	Gas, flammable, high fire risk if any ignition source present	Fire and/or explosion	Smoke, fumes, and heat, and as indicated by the drill letter	Use 100% oxygen; establish and maintain maximum ventilation; no smoking; minimum electrics.	All agents according to availability	Possible abrupt loss of pressurisation
11	Infectious substances may affect humans or animals if inhaled, ingested, or absorbed through the mucous membrane or an open wound	Contamination with infectious substances	Delayed infection to humans or animals	Do not touch. Minimum re-circulation and ventilation in affected area.	All agents according to availability; no water on 'Y' drill letter.	Call for a qualified person to meet the aircraft.
12	Fire, heat, smoke, toxic and flammable vapour	Fire and/or explosion	Smoke, fumes, heat	Use 100% oxygen; establish and maintain maximum ventilation	All agents according to availability. Use water if available	Possible abrupt loss of pressurisation; consider landing immediately
Drill letter	Additional risk		Drill letter	Additional risk		
A	Anaesthetic		S	Spontaneously combustible or pyrophoric		
C	Corrosive		W	If wet gives off toxic or flammable gas		
E	Explosive		X	Oxidiser		
F	Flammable		Y	Depending on the type of infectious substance, the appropriate national authority may be required to quarantine individuals, animals, cargo, and the aircraft		
H	Highly ignitable		Z	Aircraft cargo fire suppression system may not extinguish or contain the fire; consider landing immediately		
I	Irritant/tear producing					
L	Other hazard low or none					
M	Magnetic					
N	Noxious					
P	Toxic (poison)					

## Appendix A - Annex H: Helicopter Remote Area Procedures

CAA has issued exemption 22/EXE/51 providing relief from some of the requirements of Part 92 with regards to DG procedures for helicopters in remote areas. ABC aviation will use the procedures detailed above for all carriage of DG when operating from normal operating bases, including any temporary operating bases set up for specific operations. However, when uplifting DG from a remote area the following procedures may be used, if the normal company DG procedures cannot be followed.

- a. Rule 92.15(a). A written document that identifies that general cargo is not DG is not required, however, the client must confirm verbally to the pilot that there is no DG included in the cargo and must accurately describe the cargo to the pilot.
- b. Rule 92.51(a). The requirement for packaging to meet certain requirements is not necessary, however:
  - i. The packaging type must be allowed for in the ICAO TIs appropriate to the DG;
  - ii. The packaging must be inspected by the pilot prior to uplift
  - iii. Quantity limits of the ICAO TIs must be adhered to.
- c. 92.57 & 92.59. Normal requirements for marking and labelling are not required. However, all DG must be clearly marked to:
  - i. Show that the package or overpack contains DG;
  - ii. Accurately describes the contents including the common or proper shipping name of the DG;
  - iii. Clearly labels the DG with any applicable hazard labels.
- d. 92.105(a) & 92.153. A written DGD is not required however the person offering the DG must provide the pilot with information that correctly describes the DG including classification, PSN or common name, and any applicable hazards, and a person accepting the DG must receive such information and inspect the DG.
- e. 92.173(a) & 92.173(c). A written NOTOC including emergency information is not required. However, all pilots are to ensure that they are fully aware of the DG being carried and have at hand appropriate information for use in emergency response to accidents or incidents involving the DG.

Included in 22/EXE/51 are three specific dangerous goods items and substances that are allowed to be carried under certain conditions, as follows.

- f. **Carriage of Class 1.4S ammunition** (for shooting from the air). When carrying out a shooting operation ammunition of Class 1.4S may be carried as follows.
  - i. The ammunition is only carried on the flight for which shooting is intended, or the immediately prior or immediately following flight if it is impractical to off-load the ammunition.

- ii. The ammunition is carried under the supervision of the shooter.
  - iii. The ammunition is carried in magazines or other suitable containers so that loose ammunition does not create a hazard.
  - iv. The only persons carried on the aircraft are persons essential to the shooting operation.
- g. **Carriage of Class 3 flammable liquids of packing group II** (including UN 1203 Petrol and UN 1219 Isopropyl Alcohol). When required Class 3 flammable liquids of packing group II may be carried with passengers as follows:
- i. The maximum quantity per package does not exceed 20l.
  - ii. The fuel must be carried in UN certified jerricans or other containers that meet the requirements of the ICAO Technical Instructions.
  - iii. The packages must be inspected for condition and free of any damage, leakage, or spillage prior to loading.
  - iv. Only passengers associated with the dangerous goods may be carried.
- h. **Carriage of UN 3373 Biological substance, category B (Human Waste)**. When required human waste may be carried as an underslung load in quantities that exceed the normal maximum quantity allowed by Packing Instruction 650 of the ICAO Technical Instructions. This provision is to allow the removal of human waste drums or tanks from mountain huts, and all other requirements of Part 133 must be adhered to including that:
- i. The flight path must be clear of any congested area of a city, town, or settlement;
  - ii. The flight path must be planned to avoid environmentally sensitive areas.

## Appendix B: DG Manual (Sample): Will-not-carry operator

Definitions	
<b>Approval</b>	An authorisation granted by CAA to carry DG that is otherwise forbidden, where the ICAO TIs state that an approval may be granted.
<b>Baggage</b>	Personal property of a passenger or crew member carried on an aircraft with that person.
<b>Cargo</b>	Any property carried on an aircraft other than mail and baggage.
<b>Competency-based Training</b>	Training and assessment characterised by the defining and setting of performance standards, development of training to meet those standards, and training and assessment against those standards.
<b>Dangerous Goods (DG)</b>	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 TIs, or which are classified according to the ICAO TIs. <i>Note: This definition is from the TIs and differs slightly from the definition in the Civil Aviation Act (1990).</i>
<b>Exemption</b>	An authorisation, other than an approval, granted by CAA providing relief from the requirements of the ICAO TIs. <sup>6</sup>
<b>IATA DGR</b>	The International Air Transport Association's Dangerous Goods Regulations.
<b>ICAO Technical Instructions (TIs)</b>	The International Civil Aviation Organisation's Document 9284: <i>Technical Instructions for the Safe Transport of Dangerous Goods by Air</i> . <i>Note: For a full definition, refer to the TIs.</i>
<b>Will-carry</b>	An operator who carries DG as cargo.
<b>Will-not-carry</b>	An operator who elects not to carry DG as cargo. A will-not-carry operator may still carry DG under other provisions, such as DG carried by passengers and crew.

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<sup>6</sup> An exemption is provided for in S37 of the CA Act 1990. An exemption is also provided for in the ICAO TIs, but any request for a DG exemption will be considered as a S37 exemption.



<b>Abbreviations</b>	
<b>AC</b>	Advisory circular
<b>CAA</b>	Civil Aviation Authority
<b>CAR</b>	Civil Aviation Rules
<b>DG</b>	Dangerous Goods
<b>DGR</b>	Dangerous Goods Regulations
<b>Doc</b>	Document
<b>ERG</b>	Emergency response guidance
<b>g</b>	Gram
<b>IATA</b>	International Airline Transport Association
<b>IAW</b>	In accordance with
<b>ICAO</b>	International Civil Aviation Organisation
<b>kg</b>	Kilogram
<b>L</b>	Litre
<b>mL</b>	Millilitre
<b>PED</b>	Personal Electronic Device
<b>SMS</b>	Safety Management System
<b>TIs</b>	Technical Instructions
<b>v</b>	Volt
<b>Wh</b>	Watt-hour

## Part 1: Policy and general requirements

### 1. Policy and Authorisation

*Rule 92.7, 92.9*

XYZ Aviation does not carry Dangerous Goods (DG) as cargo and has elected to be a 'will-not-carry' operator. XYZ has policies and procedures in place, and staff trained, appropriate to the following carriage of DG:

- a. DG carried by passengers and crew (Rule 92.13);
- b. DG required to be aboard an aircraft IAW the airworthiness or operational requirements of the CARs (Rule 92.1(b)(2)).

Each of these is explained in the following paragraphs and if any staff members have concerns regarding the carriage of DG or are unsure of the correct procedures, they are to raise these concerns with the CEO prior to accepting, handling, or otherwise dealing with the DG.

Any DG that is carried must be carried in accordance with this manual, which ensures compliance with Part 92 and the ICAO TIs. DG that is forbidden for carriage by air under the ICAO TIs is forbidden for carriage in XYZ aircraft, unless a specific approval or exemption is granted by CAA.

The primary reference for carriage of DG by air is the International Civil Aviation Organisation Doc 9284: *Technical Instructions for the Safe Transport of Dangerous Goods by Air* (ICAO TIs). The information in the following paragraphs is taken from this document and from the International Air Transport Association's Dangerous Goods Regulations (IATA DGR). Use of the IATA DGR will satisfy the requirement to comply with the ICAO TIs.

### 2. Articles or substances excluded from Part 92 requirements *Rule 92.1(b), 92.1(c)*

Articles or substances that are required to be aboard an aircraft IAW the airworthiness or operational requirements of the CARs, or that are approved by the Director to meet special operational requirements, are not subject to the requirements of Part 92. However, articles and substances intended as replacements for such items must be shipped and carried as DG. Examples of such articles are:

- a. Dry cell batteries;
- b. Fire extinguishers;
- c. First-aid kits that contain DG items or substances; and/or
- d. Aircraft spare parts that are, or contain, DG.

This provision **does not** allow for the carriage of aviation fuel or agricultural chemicals in jerry cans or drums. These items are DG cargo, and may not be carried by XYZ aircraft.

### 3. Carriage of radioactive materials.

XYZ Aviation does not carry radioactive materials.

## Part 2: Part 92.11 Exceptions

### 4. Carriage of DG by Police.

*Rule 92.11(a)*

XYZ Aviation does not carry Police under the provisions of CAR 92.11(a).

**5. Carriage of Class 1 DG under Rule 92.11(b).** *Rule 92.11(b)*

XYZ Aviation does not carry Class 1 explosives under the provision of CAR 92.11(b).

**6. Carriage of DG by passengers for their recreational use.** *Rule 92.11(c)*

XYZ Aviation does not carry DG under the provision of CAR 92.11(c).

**Part 3: Carriage of DG by passengers and crew**

**7. Carriage of DG by passengers and crew** *Rule 92.13*

DG may be carried by passengers and crew on the conditions that the goods are:

- a. Carried in carry-on baggage, checked baggage, or on the person;
- b. Permitted in the table attached at Annex A; and
- c. For personal use only.

The requirements of the ICAO TIs for documentation, marking, labelling, and packing do not apply to goods carried under this provision, except for the reporting requirements for DG incidents which are still applicable.

For the purposes of XYZ Aviation's carriage of DG the definition of checked baggage is baggage that is to be loaded in a cargo hold or cargo pod that is not accessible to the passenger or crew in flight. DG items that must be in carry-on baggage or on the person, which are not allowed in checked baggage, must be loaded such that they are accessible in flight.

**Part 5: Communication and notification requirements**

**8. Information to employees** *Rule 92.175*

All employees of XYZ Aviation are to have read this DG manual before taking part in any actions involving DG. Employees who have a role in the handling and carriage of DG will receive DG training (detailed below) and always have access to AC 92-2 and this manual when involved in the handling of DG.

**9. Information to the public and passengers** *Rule 92.177, 92.179*

Passengers must be informed of the type of goods that they are prohibited from carrying aboard an aircraft. This information is conveyed in the following manner:

- a. CAA DG notices being prominently displayed in the reception area and hangar;
- b. DG information being included as part of all pre-flight passenger safety briefings; and
- c. DG information being included during the booking process for all advance bookings.

**10. Notification, reporting, and custody requirements** *Rule 12.51, 12.55, 92.17, 92.181*

When an incident or accident occurs that involves DG or where DG is being carried, whether or not it is apparent that the DG contributed to the incident or accident, the DG is to be deemed to be in the custody of the Director of CAA. Any staff involved in such an event are to take reasonable measures to secure the DG until it is taken into possession by CAA, or CAA advises that the DG is no longer needed.

A DG incident is defined as an incident associated with and related to the carriage of DG by air, after acceptance by the operator, that:

- d. results in injury to a person, property damage, fire, breakage, spillage, leakage of fluid or radiation;
- e. involves, or other evidence that the integrity of the packaging has not been maintained; or
- f. involves dangerous goods incorrectly declared, packaged, labelled, marked, or documented.

If a DG accident or incident occurs, the notification and reporting requirements of Part 12 apply. Details of these requirements are found in the company SMS Manual. In summary:

- a. If the incident is a serious incident or is an immediate hazard to the safety of an aircraft operation, the Safety Manager is to notify CAA as soon as practicable;
- b. In the absence of the Safety Manager, any person involved in the incident should notify CAA as soon as practicable;
- c. All notification is to include the date and time of the incident, brief details, and the name and contact details of both the organisation and the person reporting the incident;
- d. A CA005 report is to be submitted to CAA within 14 days by the Safety Manager.

## **11. Dangerous goods training**

*Rule 92.203, 92.205*

DG training is required for all XYZ Aviation personnel prior to any involvement in DG activities. The Training Manager is responsible for arranging initial DG training for new employees, and for DG recurrent training each two years IAW Part 92. All DG training will be conducted by either CAA or a contracted Part 141 organisation with a DG training approval. Records of DG training will be retained for the duration of that person's employment.

Competency standards for DG training and assessment are compiled by the Safety Manager and Training Manager and forwarded to the approved DG training provider. Competency standards are defined for four basic areas as:

- a. DG basic training:
  - i. Identification of DG.
  - ii. Hidden, undeclared, and mis-declared DG.
- b. Carriage of DG by passengers and crew.
- c. Carriage of DG for airworthiness and operational requirements.
- d. Communication:
  - i. Passenger briefing and awareness.
  - ii. Notification of DG incidents or accidents.


While the competency standards are defined for the limited roles that XYZ personnel fulfil, they are also designed around the types of DG that XYZ Aviation carry and the operating environment of the company.


## **12. Carriage of general cargo**


*Rule 92.15*


When any items are presented for carriage in XYZ Aviation aircraft that are not postal articles, checked baggage, or carry-on baggage, the person presenting the items must sign a document which accurately describes the items or states that the items are not DG. Staff need to bear in mind that persons presenting items may not know what constitutes DG and be vigilant in monitoring for hidden DG (either deliberately or inadvertently), or mis-declared DG. The document to use for this is XYZ form xxx.


## Appendix B - Annex A: DG Carried by passengers and crew


<b>Batteries: spare/loose and Lithium batteries: spare/loose including power banks</b>			
Includes lithium batteries, non-spillable batteries, nickel-metal hydride batteries, and dry batteries for portable electronic devices. Articles which have the primary purpose as a power source (power banks) are considered spare batteries.			
	Packaging	Quantity	Notes
	Must be individually protected to prevent short circuits.	Maximum 20 spare batteries per person. The operator may approve the carriage of more than 20 batteries.	Lithium metal batteries must not exceed 2 g of lithium content. Lithium ion batteries must not exceed 100 Wh. Non-spillable wet batteries must be capable of withstanding vibration and pressure tests, maximum 2 per person, not exceeding 12 v and 100 Wh, battery terminals protected.
<b>Approval of operator required</b>	<b>Permitted as checked baggage</b>	<b>Permitted as carry-on baggage</b>	<b>PIC informed of location</b>
No	No	Yes	No


<b>Lithium batteries spare/loose</b>			
	Packaging	Quantity	Notes
	Batteries must be individually protected to prevent short circuits.	Maximum 2 spare batteries.	Lithium ion batteries exceeding 100 Wh but not exceeding 160 Wh. For medical devices only, lithium metal batteries with lithium metal content exceeding 2 g but not exceeding 8 g. Batteries must meet UN test criteria
<b>Approval of operator required</b>	<b>Permitted as checked baggage</b>	<b>Permitted as carry-on baggage</b>	<b>PIC informed of location</b>
Yes	No	Yes	No

<b>Lithium batteries: Portable electronic devices (PED) containing lithium metal or lithium ion cells or batteries</b>			
Includes medical devices such as portable oxygen concentrators, and consumer electronics such as cameras, mobile phones, laptops, and tablets.			
	Packaging	Quantity	Notes
	Devices in checked baggage must be completely switched off and must be protected from damage.	Maximum 15 PED per person. The operator may approve the carriage of more than 15 PED.	Lithium metal content must not exceed 2 g. Lithium ion batteries must not exceed 100 Wh each
<b>Approval of operator required</b>	<b>Permitted as checked baggage</b>	<b>Permitted as carry-on baggage</b>	<b>PIC informed of location</b>
No	Yes	Yes	No


<b>Lithium battery powered electronic devices</b>			
Includes portable medical electronic devices, power tools, video cameras, laptops, etc.			
	Packaging	Quantity	Notes
	Devices in checked baggage must be completely switched off (not in hibernation or sleep mode). Must be protected from damage. Must be protected from inadvertent activation.	Maximum 15 PED per person.	Lithium ion batteries exceeding 100 Wh but not exceeding 160 Wh. For medical devices only, lithium metal batteries with lithium metal content exceeding 2 g but not exceeding 8 g. Batteries must meet UN testing criteria.
<b>Approval of operator required</b>	<b>Permitted as checked baggage</b>	<b>Permitted as carry-on baggage</b>	<b>PIC informed of location</b>
Yes	Yes	Yes	No


Alcoholic Beverages			
	Packaging	Quantity	Notes
	In retail packaging	Maximum per receptacle 5 L Total quantity per person 5 L	More than 24% but less than 70% alcohol by volume
<b>Approval of operator required</b>	<b>Permitted as checked baggage</b>	<b>Permitted as carry-on baggage</b>	<b>PIC informed of location</b>
No	Yes	Yes	No


Ammunition			
	Packaging	Quantity	Notes
	Securely packaged. Allowances for more than one person must not be combined into one or more packages.	Not exceeding 5 kg gross weight per person.	Division 1.4S only. For that person's own use only. Excludes ammunition with explosive or incendiary projectiles.
<b>Approval of operator required</b>	<b>Permitted as checked baggage</b>	<b>Permitted as carry-on baggage</b>	<b>PIC informed of location</b>
Yes	Yes	No	No


Avalanche rescue backpack			
	Packaging	Quantity	Notes
	Packed so that it cannot be inadvertently activated.	One per person.	Containing cartridges of division 2.2 compressed gas, may be fitted with trigger containing no more than 200 mg net of division 1.4S. Must be fitted with pressure relief valves.
<b>Approval of operator required</b>	<b>Permitted as checked baggage</b>	<b>Permitted as carry-on baggage</b>	<b>PIC informed of location</b>
Yes	Yes	Yes	No





<b>Camping stoves and fuel containers that have contained flammable liquid fuel</b>			
	<b>Packaging</b>	<b>Quantity</b>	<b>Notes</b>
	Cap securely fastened. Wrapped in absorbent material and placed in a sealed polyethylene or equivalent bag.	No limit	Must be completely drained and action taken to nullify the danger.
<b>Approval of operator required</b>	<b>Permitted as checked baggage</b>	<b>Permitted as carry-on baggage</b>	<b>PIC informed of location</b>
Yes	Yes	No	No


<b>Dry Ice (solid carbon dioxide)</b>			
	<b>Packaging</b>	<b>Quantity</b>	<b>Notes</b>
	Baggage must permit release of CO2 gas. Checked baggage must be marked 'dry-ice' or 'carbon-dioxide, solid'.	Maximum 2.5 kg per person, when used to pack perishables.	Net weight of dry ice marked on package, or an indication that there is less than 2.5 kg.
<b>Approval of operator required</b>	<b>Permitted as checked baggage</b>	<b>Permitted as carry-on baggage</b>	<b>PIC informed of location</b>
Yes	Yes	Yes	No


<b>E-cigarettes (Includes e-cigars, e-pipes, personal vaporisers, electronic nicotine delivery systems).</b>			
	<b>Packaging</b>	<b>Quantity</b>	<b>Notes</b>
	Measures must be taken to prevent unintentional activation of the heating element while on board the aircraft.	No limit	Re-charging on board aircraft is not permitted.
<b>Approval of operator required</b>	<b>Permitted as checked baggage</b>	<b>Permitted as carry-on baggage</b>	<b>PIC informed of location</b>
No	No	Yes	No


<b>Gas cartridges, small non-flammable</b>			
	<b>Packaging</b>	<b>Quantity</b>	<b>Notes</b>
		Personal safety device packed so that it cannot be inadvertently activated.	Maximum 2 small cartridges fitted to a self-inflating personal safety device such as a lifejacket. Not more than 2 devices per passenger and 2 spare cartridges per device. For other devices, max. 4 cartridges, capacity not exceeding 50 mL water (equivalent to a 28 g gas cartridge).
<b>Approval of operator required</b>	<b>Permitted as checked baggage</b>	<b>Permitted as carry-on baggage</b>	<b>PIC informed of location</b>
Yes	Yes	Yes	No


<b>Gas cylinders: non-flammable, non-toxic, worn for the operation of mechanical limbs</b>			
	<b>Packaging</b>	<b>Quantity</b>	<b>Notes</b>
		Worn with the limb.	As required by the limb.
<b>Approval of operator required</b>	<b>Permitted as checked baggage</b>	<b>Permitted as carry-on baggage</b>	<b>PIC informed of location</b>
No	Yes	Yes	No


<b>Hair styling equipment containing a hydrocarbon gas cartridge</b>			
	<b>Packaging</b>	<b>Quantity</b>	<b>Notes</b>
		Safety cover must be securely fitted over the heating element.	1 per passenger or crew member.
<b>Approval of operator required</b>	<b>Permitted as checked baggage</b>	<b>Permitted as carry-on baggage</b>	<b>PIC informed of location</b>
No	Yes	Yes	No


<b>Internal combustion or fuel cell engines</b>			
	<b>Packaging</b>	<b>Quantity</b>	<b>Notes</b>
	Flammable liquid powered internal combustion or fuel cell engines being carried separately or incorporated into a machine or other apparatus, without batteries or other DG, must comply with the conditions that: <ol style="list-style-type: none"> <li>The engine is powered by a fuel that is not a DG; or</li> <li>The fuel tank has never contained any fuel, or the fuel has been flushed and the tank purged of vapours and adequate measures taken to nullify the hazard; and</li> <li>The passenger provides documentation that the flushing and purging procedure has been followed, and;</li> <li>The entire fuel system has no free liquid and all fuel lines are sealed or capped or securely connected.</li> </ol>		
<b>Approval of operator required</b>	<b>Permitted as checked baggage</b>	<b>Permitted as carry-on baggage</b>	<b>PIC informed of location</b>
No	Yes	No	No


<b>Matches, safety, or small cigarette lighter</b>			
	<b>Packaging</b>	<b>Quantity</b>	<b>Notes</b>
	One small packet, or one small lighter. Only if carried by an individual who intends to use the item. Lighter must not contain unabsorbed liquid fuel, other than liquified gas. Lighter fuel and lighter refills are not permitted. Strike anywhere matches, blue flame lighters, cigar lighters, are not permitted. Cigarette lighters should have two independent actions by the user to activate ignition. Cigarette lighters powered by lithium batteries without a safety cap or means of protection against inadvertent activation are not permitted.		
<b>Approval of operator required</b>	<b>Permitted as checked baggage</b>	<b>Permitted as carry-on baggage</b>	<b>PIC informed of location</b>
No	No	On one's person only	No


<b>Mobility aids/wheelchairs with non-spillable wet batteries, nickel metal hydride batteries, or dry batteries</b>			
	<b>Packaging</b>	<b>Quantity</b>	<b>Notes</b>
		Mobility aid must be prepared to prevent inadvertent activation. Mobility aid secured and protected from damage. Any spare batteries, batteries that are removed must be carried in strong rigid packaging in cargo compartment.	May carry one spare wet non-spillable battery, or two spare nickel-metal hydride or dry batteries.
<b>Approval of operator required</b>	<b>Permitted as checked baggage</b>	<b>Permitted as carry-on baggage</b>	<b>PIC informed of location</b>
Yes	Yes	No	Yes


<b>Mobility aids/wheelchairs with spillable batteries</b>			
	<b>Packaging</b>	<b>Quantity</b>	<b>Notes</b>
		Mobility aid must be prepared to prevent inadvertent activation. Mobility aid secured and protected from damage, battery securely attached and electrical circuits isolated, or, removed if the wheelchair is unable to be carried upright. If battery removed, packaging must be marked 'BATTERY-WET with WHEELCHAIR' and with corrosive and orientation labels.	May carry one spare wet non-spillable battery, or two spare nickel-metal hydride or dry batteries.
<b>Approval of operator required</b>	<b>Permitted as checked baggage</b>	<b>Permitted as carry-on baggage</b>	<b>PIC informed of location</b>
Yes	Yes	No	Yes

<b>Mobility/wheelchairs aids with lithium batteries</b>			
	<b>Packaging</b>	<b>Quantity</b>	<b>Notes</b>
	Mobility aid must be prepared to prevent inadvertent activation. Mobility aid secured and protected from damage. Battery adequately protected from damage by the design of the mobility aid, and securely attached to the mobility aid, or removed from the mobility aid.	Passenger may carry one spare battery not exceeding 300 Wh or two spare batteries not exceeding 160 Wh.	Battery must meet UN test criteria. Battery terminals prevented from short circuit. Each battery removed from the mobility aid must not exceed 300 Wh. Any removed batteries or spare batteries must be carried in the passenger cabin and protected from damage.
<b>Approval of operator required</b>	<b>Permitted as checked baggage</b>	<b>Permitted as carry-on baggage</b>	<b>PIC informed of location</b>
Yes	Yes	No	Yes

<b>Non-radioactive medicinal or toiletry articles (including aerosols)</b>			
Including hairsprays, perfumes, colognes, medicines containing alcohol, and non-flammable non-toxic aerosols with no subsidiary hazard, for sporting or home use.			
	<b>Packaging</b>	<b>Quantity</b>	<b>Notes</b>
	Release valves on aerosols must be protected by a cap or other suitable means.	Total net quantity must not exceed 2 kg or 2 L. Net quantity of each article must not exceed 0.5 kg or 0.5 L.	
<b>Approval of operator required</b>	<b>Permitted as checked baggage</b>	<b>Permitted as carry-on baggage</b>	<b>PIC informed of location</b>
No	Yes	Yes	No

<b>Oxygen or air, gas cylinders for medical use</b>			
	<b>Packaging</b>	<b>Quantity</b>	<b>Notes</b>
	Cylinders valves and regulators must be protected from damage and inadvertent release.	Cylinder must not exceed 5 Kg gross weight.	Liquid oxygen is forbidden for transport.
<b>Approval of operator required</b>	<b>Permitted as checked baggage</b>	<b>Permitted as carry-on baggage</b>	<b>PIC informed of location</b>
Yes	Yes	Yes	Yes

<b>Thermometer, medical or clinical which contain mercury.</b>			
	<b>Packaging</b>	<b>Quantity</b>	<b>Notes</b>
	Packed in its protective case.	One per person for personal use.	
<b>Approval of operator required</b>	<b>Permitted as checked baggage</b>	<b>Permitted as carry-on baggage</b>	<b>PIC informed of location</b>
No	Yes	No	No

<b>Thermometer or barometer, mercury filled</b>			
Carried by a representative of a government weather bureau or similar official agency			
	Packaging	Quantity	Notes
	<p>Packed in strong outer packaging, with a sealed inner liner, or bag of strong leak-proof and puncture-resistant material impervious to mercury.</p>	<p>One per person.</p>	<p>Packaging must prevent escape of mercury regardless of position of package.</p>
Approval of operator required	Permitted as checked baggage	Permitted as carry-on baggage	PIC informed of location
Yes	No	Yes	Yes

**Items in the ICAO TIs or IATA DGR not included above**

- Baggage with installed lithium batteries
- Chemical agent monitoring equipment
- Disabling devices (such as mace, pepper spray)
- Electroshock weapons
- Fuel cells contained in portable electronic devices
- Fuel cell cartridges, spare
- Insulated packaging containing refrigerated liquid nitrogen
- Permeation devices
- Radio isotopic cardiac pacemakers
- Security type equipment (attaché cases, cash boxes, etc fitted with lithium batteries or pyrotechnics)
- Specimens, non-infectious, packed with small quantities of flammable liquid.