

# DANGEROUS GOODS PANEL (DGP) MEETING OF THE WORKING GROUP OF THE WHOLE

Atlantic City, United States, 4 to 8 April 2011

Agenda Item 3: Development of recommendations for amendments to the Supplement to the Technical Instructions for the Safe Transport of Dangerous Goods by Air (Doc 9284SU) for incorporation in the 2013-2014 Edition

#### APPROVAL TO CARRY DANGEROUS GOODS — AIR OPERATORS

(Presented by J. McLaughlin)

#### **SUMMARY**

In response to discussions at DGP-WG/10 on approvals for operators to carry dangerous goods, this working paper provides information related to the United State's approach to issuing approvals.

#### 1. **INTRODUCTION**

- During discussions at DGP-WG/10 on approvals for operators to carry dangerous goods (see DGP-WG/11-WP/1, paragraph 3.6.1), panel members with existing approval programs in their States were asked to provide background information on their approaches, policies, and tools.
- The secretary reported on a paper she presented to the Operations Panel (OPSP) in which she had raised difficulties pertaining to lack of understanding of State of the Operator responsibilities with regard to dangerous goods which had been encountered during safety oversight audits. One example of such a difficulty related to the need for an operator to be approved to carry company material containing dangerous goods; this was frequently misunderstood. It had been suggested by the Secretary that future consideration might be given to the development of a separate chapter on dangerous goods provisions in Annex 6, Volume I but noted this work would require close cooperation between the OPSP and the DGP. She therefore recommended that panel members consult with their OPSP counterparts in their States or organizations. It was reported that the OPSP would consider adding an item related to dangerous goods to their work programme which would be submitted to the ANC for approval.
- 1.3 To this end, the material presented below is intended to:
  - a) provide information on the United State's approach to dangerous goods certification of operators through approval of dangerous goods manuals and training programmes;

- b) prompt the working group to consider the scope and nature of guidance that should be incorporated into the supplement.
- c) provide possible guidance materials for other States and developing oversight programmes.

#### 1.4 **AIR OPERATOR CERTIFICATION PROCESS**

- 1.4.1 There are two types of approvals issued by the US aviation authority. Operations specification for the authorization to carry Dangerous Goods and operations specification which prohibit carrying Dangerous Goods. Operators are normally referred to as "Will Carry" or "Will Not Carry" operators, depending on operations specifications.
- 1.4.2 Operators submit appropriate manuals and training programmes to the principal operations inspector (POI) responsible for their operating certificate. The POI will coordinate with the Dangerous Goods office for review.
- 1.4.3 Dangerous Goods Inspectors review and evaluate operations manuals and training programmes for compliance with State operating regulations and the ICAO TI. The inspector will recommend and changes or additions, if any, prior approving operations manuals and training programmes.
- 1.4.4 Once approved, the State will approve and issue the appropriate operations specification to the operator.

#### 2. CONSIDERATION BY THE DGP-WG

2.1 The working group is invited to note how the United States processes dangerous goods certification for operators. Attached are five appendices to this working paper which provide examples for an operations specifications process for dangerous goods. The four appendices are:

Appendix A: Dangerous Goods Certification Process

Appendix B: Approval Checklists

Appendix C: Will Carry Dangerous Goods Programme

Appendix D: Will Not Carry Dangerous Good Programme

Appendix E: Operations Specifications

2.2 The working group is invited to consider what types of information for dangerous goods certification and oversight would be useful for incorporation into the Supplement.

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#### APPENDIX A

#### AIR OPERATOR CERTIFICATION AND APPLICATION PROCESS

#### GENERAL INFORMATION FOR AIR OPERATOR CERTIFICATION

#### **Dangerous Goods Transport Operations**

1. BACKGROUND. This section provides guidance concerning State operating regulations and ICAO TI, on Dangerous Goods transport. Principal inspectors (PI) of each State should ensure that air operators are aware of the ICAO TI or other Dangerous Goods regulations governing Dangerous Goods transport by air. These regulations apply to the operator's shipping and transport operations of Dangerous Goods. Air operators should be made aware that their compliance with the Dangerous Goods training requirements contained in ICAO TI in addition to Sate operating regulations is mandatory. This process should be completed prior to issuing operations specifications for the carriage of Dangerous Goods. Additionally, all operators must develop and implement a system that will allow the operator to remain current with regulatory changes and updates.

NOTE:Operators that choose not to carry Dangerous Goods must have a Dangerous Goods recognition programme.

- 2. RESPONSIBILITY FOR APPROVAL, SURVEILLANCE, AND ENFORCEMENT OF DANGEROUS GOODS PROGRAMMES. Each State has oversight responsibility for those air operators they certificate to include their Dangerous Goods programme. The State's technical experts will evaluate operator Dangerous Goods manuals and training programmes for approval to ensure compliance with State operating regulations and the ICAO TI. States will inspect operators for compliance with dangerous goods transport regulations and enforce any alleged violations in accordance with State oversight program requirements.
  - A. Procedures for Approval of Dangerous Goods Training. When a principal operations inspector (POI) receives proposed or updated Dangerous Goods training from an operator, the POI will coordinate with the appropriate Dangerous Goods office to evaluate the contents of the training programme. The operator will coordinate with the State as necessary to formulate satisfactory Dangerous Goods training programme. Once the State is satisfied with the training, the State may approve the training programme for operator implementation.

**Note:** The initial approval of the training is usually done at the same time as the review and acceptance of the Dangerous Goods manual.

**B.** Procedures for Approval of Dangerous Goods Manuals. Consistent with State operating regulations, the Dangerous Goods manual is required to be submitted to the State by the operator. The State's technical Dangerous Goods inspector will evaluate and approve or recommend changes to ensure compliance with State operating regulations and the ICAO TI. The operator should coordinate with the State as necessary to formulate satisfactory Dangerous Goods manual. Once approved by the State, the operator may

implement the approved operational procedures. Only the State may approve Dangerous Goods manuals.

- **2-2 DANGEROUS GOODS INFORMATION REQUIREMENTS FOR OPERATORS NOT ACCEPTING DANGEROUS GOODS.** Operators who do not accept, handle, or store Dangerous Goods must provide procedures and instructions in the operator's manual as follows:
  - Procedures and instructions so that all personnel responsible for accepting and handling
    any cargo or packaged materials receive adequate training on the recognition of items
    classified as Dangerous Goods (Adequate is defined in an operational sense to mean the
    demonstrated ability of required personnel to identify such items;)
  - Procedures and instructions so that no packages are accepted by the operator that contain a Dangerous Goods;
  - Procedures and instructions for reporting that damaged packages found to contain, or that are suspected of containing, Dangerous Goods or Dangerous Goods are reported in compliance with ICAO TI.
  - Procedures and instructions to see that all spares and/or company material (COMAT) classified as Dangerous Goods will be offered to a different mode of transportation (e.g., ground) and/or an air operator that is authorized to transport Dangerous Goods; and
  - Procedures and instructions to see that any employee, agent, or contract employee of the air operator who prepares and/or offers COMAT classified as Dangerous Goods for shipment via any mode is fully trained as a Dangerous Goods shipper.
- **2-3 DANGEROUS GOODS INFORMATION REQUIREMENTS FOR OPERATORS ACCEPTING DANGEROUS GOODS.** Operators who accept, handle and transport Dangerous Goods must provide instructions and procedures on the following basic subjects. The following information is provided as background material for the aviation safety inspector and is not intended to supplant nor provide guidance for an operator's Dangerous Goods programme. Inspectors may share this information when requested.
  - **A.** Procedures and Instructions on Acceptance of Dangerous Goods for Air Shipment. The operator's instructions should contain the following information:
    - 1) The material must be properly packaged in accordance with the packaging rules and it must be properly marked, labeled, and documented. The total quantity must be within the quantity limitations and the shipment must be accompanied by the proper shipping papers, State exemptions, or competent authority certificates, as determined by the inspection requirements for accepting shipments in ICAO TI, Part 7.
    - 2) The package may not leak or be damaged, and must be an authorized package in accordance with the applicable regulations.
    - 3) The package must either be authorized for carriage in passenger-carrying aircraft or labeled for cargo-only aircraft if it is not acceptable for passenger-carrying aircraft.
    - 4) The material must be identified by the proper shipping name, hazard class or division, identification number, and packing group, when required, in accordance with ICAO TI.

- 5) The package must be properly marked and labeled in accordance with ICAO TI.
- 6) Transport documents must be reviewed to ensure that all necessary information is entered, including any additional information that may be required because of the commodity shipped, or because the method of transportation is related to air transportation.
- **B.** Storage of Dangerous Goods. Operators should provide specific guidance on the storage of Dangerous Goods. This guidance should include instructions for Class 8 (corrosive), Class 7 (radioactive), and Class 6, Division 6.1 (toxic) materials as discussed below:
  - 1) The storage of Class 8 (corrosive) materials next to, or in contact with, Class 4, Division 4.2 or 4.3 (flammable) solids or Class 5, Division 5.1 (oxidizing) materials must be prevented. The segregation prescribed in ICAO TI must be maintained for all packages containing Dangerous Goods that might react dangerously when stored in a position that causes or contributes to leakage.
  - 2) The storage of Class 7 (radioactive) materials labeled yellow II and/or yellow III will not exceed a transport index (TI) of 50 in a single storage location. These materials are stored in an area that is isolated from people and does not permit pedestrian traffic or loitering. The minimum separation distances prescribed in ICAO TI should be maintained between radioactive materials labeled yellow II and yellow III and packages of undeveloped film.
  - 3) Packages bearing a Class 6, Division 6.1 toxic label will not be stored in the same location as foodstuffs, feeds, or any edible materials intended for consumption by either humans or animals.
  - 4) Loading of Dangerous Goods. The operator should provide specific guidance for loading Dangerous Goods. This guidance should include:
    - Loading of Dangerous Goods in aircraft in accordance with ICAO TI.
    - Loading of radioactive materials in aircraft in accordance to ensure that limitations are in accordance with the provision of ICAO TI.
    - Loading of Dangerous Goods in cargo compartments or freight containers within cargo compartments, in accordance with ICAO TI; and
    - A prohibition against loading packages bearing a toxic label in the same compartment that holds foodstuffs, feeds, or any edible materials intended for consumption by humans or animals unless both commodities are in separate, closed-unit load devices known as freight containers.
- C. Written Notification of Pilot In Command (NOPIC). Operators must establish procedures for notifying the PIC when Dangerous Goods are carried on board the aircraft in accordance with ICAO TI.

- **D.** Reporting Dangerous Goods Accidents and Incidents. The Dangerous Goods information must include company procedures for reporting Dangerous Goods accidents and incidents, in compliance with ICAO TI, Part 7.
- **E. Damage to Dangerous Goods Packages.** The operator must develop procedures for handling damaged packages, radioactive contamination and substances in Class 6, Division 6.2 (infectious substances), as found in ICAO TI. The information should include a list of telephone numbers and addresses of organizations that can provide technical advice on clean-up techniques and precautions to minimize the possibility of injury to employees and the general public. Appropriate organizations for such advice include the following examples:
  - CHEMTREC;
  - Department of Energy;
  - A State public health department;
  - A State office of Dangerous Goods regulation; and
  - Centers for disease control
- **F. Spares and/or Company Materials (COMAT)** POIs with certificate responsibilities for air operators that use aircraft components or consumable materials (eg. aircraft spares) classified as Dangerous Goods should ensure that air operators include in their manuals, and provide responsible personnel training on, the following information:
  - Procedures and information to assist personnel (particularly maintenance, shipping, and storage personnel) to identify or recognize aircraft components and consumable materials that contain Dangerous Goods;
  - Procedures and information on how these aircraft components or consumable materials are to be moved, stored, or handled within the facilities of the air operator, or other air agency with whom they contract services to or for;
  - Procedures and information for determining the proper packaging, marking, labeling, and materials compatibility, including instructions for the safe movement, storage, and handling of aircraft components and consumable materials classified as Dangerous Goods while they are within their facilities including such materials as Chemical Oxygen Generators;
  - Information, guidance, and precautions on the specific hazards associated with aircraft components and consumable materials classified as Dangerous Goods that are to be moved, stored, or handled within their facilities; and
  - Information, instructions, and detailed procedures for the proper disposal of unserviceable aircraft components and consumable materials classified as Dangerous Goods including Chemical Oxygen Generators.

- **2-4 EXEMPTIONS.** When an operator submits a request to the State for an initial exemption, renewal or modification of their existing exemption, the State inspector will review the application and will verify the competence and compliance history of the certificated operator in addition to ensuring compliance with State operating regulations and the ICAO TI.
- **2-5 VIOLATIONS AND INVESTIGATIONS.** When an inspector becomes aware of a suspected Dangerous Goods violation, the inspector shall notify the appropriate authority and ensure that inspections and investigations are conducted in accordance with State oversight programs for Dangerous Goods.
- **2-6 SOURCES OF INFORMATION.** The following regulations and publications pertaining to the safe transportation of Dangerous Goods are available electronically:
  - **A. National Sources** National sources of information pertaining to the safe transportation of Dangerous Goods are as follows:
    - State operating regulations are applicable Dangerous Goods operations and define
      the duties and responsibilities for preparing and implementing procedural manuals
      and training programmes dealing with the transportation of Dangerous Goods by
      air.
    - ICAO TI deals with the proper identification, classification, packaging, labeling, marking, and certification of Dangerous Goods transported in commerce.
    - State Dangerous Goods Program website: www.state.xxx
  - **B.** ICAO Technical Instructions for the Safe Transport of Dangerous Goods by Air. These technical instructions amplify the basic provisions of Annex 18 to the Convention on International Civil Aviation, and contain detailed instructions necessary for the safe international transport of Dangerous Goods by air. These instructions are issued in a 2-year edition on alternate Septembers, becoming effective the following January 1.

# **Applicable Regulatory References**

SUBJECTS	REGULATORY REFERENCES
*‡ Dangerous goods and Classifications	ICAO TI, Part 2
‡ Transport Document and Certification	ICAO TI, Part 5, Chapter 4
Requirements	
*‡ Packaging, Marking, and Labeling	ICAO TI, Part 5, Chapters 2-3
* Exceptions to the Regulations	ICAO TI, Part 1, Chapter 2
	ICAO TI, Part 8
Written Notification of PIC and Emergency	ICAO TI, Part 7, Chapter 4
Response Information	
* Reporting Dangerous goods	ICAO TI, Part 7, Chapter 4
Incidents/Discrepancies	
Loading, Unloading, and Handling	ICAO TI, Part 7, Chapter 2

<sup>\*</sup> Operators that do <u>not</u> accept or transport dangerous goods or dangerous goods must provide training in these subjects.

# **State Oversight Program Contacts**

Branch	Manager Contact Information

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<sup>‡</sup> In accordance with ICAO TI

#### APPENDIX B

# DANGEROUS GOODS OPERATIONS MANUALS AND TRAINING PROGRAMME APPROVAL

#### **Dangerous Goods Operations Manuals and Training Programme Approval**

#### **Purpose:**

The purpose of this document is to provide the objectives and tasks which a Dangerous Goods Inspector should conduct during the review and approval of an operator's authority to transport dangerous goods. In most cases, the operator's principal operations inspector (POI) will receive the manual and training programme and then coordinate with the appropriate State Dangerous Goods office for review and approval.

#### Scope:

A member state should inspect and monitor the dangerous goods transported by the air carriers within its governing authority. The inspection process should verify that an operator's dangerous goods transportation procedures and practices adhere to State operating regulations and ICAO Technical instructions (TI). This includes a method of validating an operator's authority to transport or not to transport dangerous goods as either a "Will Carry" operator or "Will Not Carry" operator.

The attached documents provide guidelines for a Dangerous Goods Inspector to reference when reviewing an operator's dangerous goods programme.

#### Attachment 1: Manual Approval Checklist

- Describes the objectives and tasks for the Dangerous Goods Inspector.
- Provides the Dangerous Goods Inspector with a step-by-step review process

#### Attachment 2: Training Programme Review and Approval Checklist

- Describes the objectives and tasks for the Dangerous Goods Inspector.
- Provides the Dangerous Goods Inspector with a step-by-step review process

#### Attachments

- 1. Manual Approval Checklist
- 2. Training Programme Approval Checklist

## **Attachment 1**

# Dangerous goods Manual – Approval Checklist

Name of the Air Carrier	Certificate Nui	nber:	Operations Insp	ector:	
Certificate Type	☐Will Carry DG ☐Will Not Carry DG			☐Passenger ☐ All Cargo	
Reviewed By:	Date:	Recommend A	Approved ☐YES ☐NO		
<b>Objective:</b>					
This review checklist is design	gned to assist the	e Dangerous G	oods Inspector in	n determining if the	
operators Dangerous Goods authority to transport dangero		the information	on required by th	e governing state's	
Tasks:					
To meet the objective, the Da	ngerous Goods I	nspector should	d accomplish the	following tasks:	
1. Identify the governing autoperators Dangerous Goods n		ative whom ma	intains overall re	esponsibility for the	
2. Identify the operator's representation		has overall resp	ponsibility for the	e Dangerous Goods	
3. Conduct review of the man	1				
4. Coordinate any changes thr		the operator			
			nrogramme and t	forward to POI	
5. If no corrections are needed, approve the dangerous goods programme and forward to POI.  Questions:					
To meet the objective, the questions:	Dangerous Goo	ods (DG) Insp	ector should ans	swer the following	
Does the DG manual con	ntain procedure	es and inform	nation regarding	г	
acceptance?	ntum procedure	os una miori	iation regarding	Yes	
ICAO 7;1.3	No, Explain No, Explain N/A				
Does the DG manual contain	procedures and	information reg	garding rejection?	1	
ICAO 7;4.5				☐ Yes ☐ No, Explain ☐ N/A	
Does the DG manual contain ICAO 7;2	procedures and	information reg	arding handling?	Yes No, Explain N/A	
Does the DG manual contain prior to transport? ICAO 7;2.9.3	n procedures and	d information r	egarding storage	Yes No, Explain N/A	

Does the DG manual contain procedures and information regarding packaging of spares and company material classified as DG? ICAO 1;4.2	Yes No, Explain N/A
Does the DG manual contain procedures and information regarding loading? ICAO 7;2.4	Yes No, Explain N/A
Does the DG manual contain procedures sufficient to assist persons in identifying packages that are marked or labeled as DG? ICAO 7;4.2	☐ Yes ☐ No, Explain ☐ N/A
Does the DG manual contain procedures sufficient to assist persons in identifying packages that may contain undeclared DG? ICAO 7;5	Yes No, Explain N/A
Does the DG manual contain procedures sufficient to assist persons in rejecting DG that do not conform to DG regulations? ICAO 7;1	☐ Yes ☐ No, Explain ☐ N/A
Does the DG manual contain procedures sufficient to assist persons complying with accident and incident reporting requirements? ICAO 7;4.6	☐ Yes ☐ No, Explain ☐ N/A
Does the DG manual contain procedures sufficient to assist persons complying with undeclared or misdeclared reporting requirements? ICAO 7;4.4 ICAO 7;4.5	☐ Yes ☐ No, Explain ☐ N/A
Does the DG manual identify if the air carrier is permitted by the governing state to carry DG.	Yes No, Explain N/A
If the operators operations specifications permit the transport of DG, does the DG manual contain procedures for determining if packages containing dangerous goods are properly offered and accepted? ICAO 7;1	Yes No, Explain N/A
If the operators operations specifications permit the transport of DG, does the DG manual contain procedures for determining if packages containing dangerous goods are properly handled, stored packaged, loaded and carried onboard an aircraft?  ICAO 7:2	Yes No, Explain N/A

If the operators operations specifications permit the transport of DG, does the DG manual contain requirements for Notice to the Pilot in Command? ICAO 7;4.1	☐ Yes ☐ No, Explain ☐ N/A
Does the operators holders DG manual contain other information or instructions relating to safety. ICAO 1;4.2.1(c)	☐ Yes ☐ No, Explain ☐ N/A
Additional Information:	
Does the operator conduct any special aircraft operations? ICAO 1;1.1.3.1	Yes, Explain No
Does the operator have any State approved exemptions? ICAO A3;2.1	Yes, Explain No
Does the operator have any State approved Competent Authority (CA)? ICAO 4;2.8	Yes, Explain No
Does the operator have a Competent Authority (CA) to ship Chemical Oxygen Generators? ICAO 4;2.8	Yes, Explain No
Is the operator required to have a Security Plan? ICAO 1;5.1.3	Yes, Explain No

Comments:
Comments.

## **Attachment 2**

# Dangerous Goods Training Programme – Approval Checklist

Name of the Air Carrier	Cert. Number:		Operations Inspec	ctor:			
Certificate Type:	☐Will Carry ☐Pas		Passe	assenger			
	☐ Will Not Carry			☐ All (	Cargo		
Reviewed By:	Date:	Approved	By:			pprove	
					$\Box$ Y	ES 🔲	NO
Objective:							
This review checklist is design					if air ca	arriers 1	training
programme contains the dange	rous goods defined in t	he ICAO Teo	chnical Instructions	<b>5.</b>			
Tasks:							
To meet the objective a Danger							
1. Identify governing agency re							
2. Identify the operator's conta	ct that has overall resp	onsibility for	the dangerous goo	ds traini	ing prog	gramme	).
3. Review the content of the tra							
4. Coordinate any dangerous g				OI to the	e air car	rier.	
5. If no corrections are needed,	, approve the dangerou	s goods progi	ramme.				
<b>Questions:</b>							
To meet the objective, the Da	ngerous Goods Inspec	tor should de	termine whether the	he opera	ators da	ngerous	s goods
training contains the following	g elements:						
General Philosophy		Applicable (	Citations		Yes	No	NA
		<b>Applicable (</b> ICAO 1;4.1	Citations		Yes	No	NA
General Philosophy 1. Purpose of DG Training Pro 2. Applicable Regulatory Mate	gramme	ICAO 1;4.1	Citations rd ICAO 1;1 ICAC	0 1;2	Yes	No	NA
<b>General Philosophy</b> 1. Purpose of DG Training Pro	gramme crials	ICAO 1;4.1		) 1;2	Yes	No	NA
General Philosophy 1. Purpose of DG Training Pro 2. Applicable Regulatory Mate	gramme erials	ICAO 1;4.1 ICAO Forwa		) 1;2	Yes	No	NA
General Philosophy  1. Purpose of DG Training Pro 2. Applicable Regulatory Mate 4. Use of ICAO TI 6. Definitions used in air dangerous goods	gramme erials transportation of	ICAO 1;4.1 ICAO Forwa ICAO 1;1.1		0 1;2	Yes	No	NA
General Philosophy  1. Purpose of DG Training Pro 2. Applicable Regulatory Mate 4. Use of ICAO TI 6. Definitions used in air	gramme erials transportation of uirements	ICAO 1;4.1 ICAO Forwa ICAO 1;1.1 ICAO 1;3.1	rd ICAO 1;1 ICAC	) 1;2	Yes	No	NA
General Philosophy  1. Purpose of DG Training Pro 2. Applicable Regulatory Mate 4. Use of ICAO TI 6. Definitions used in air dangerous goods 7. General Transportation Requ 8. Transport by Aircraft	gramme erials transportation of uirements	ICAO 1;4.1 ICAO Forwa ICAO 1;1.1 ICAO 1;3.1	rd ICAO 1;1 ICAC	) 1;2	Yes	No	NA
General Philosophy  1. Purpose of DG Training Pro 2. Applicable Regulatory Mate 4. Use of ICAO TI 6. Definitions used in air dangerous goods 7. General Transportation Requ	gramme erials transportation of uirements	ICAO 1;4.1 ICAO Forwa ICAO 1;1.1 ICAO 1;3.1	rd ICAO 1;1 ICAC	0 1;2	Yes	No	NA
General Philosophy  1. Purpose of DG Training Pro 2. Applicable Regulatory Mate 4. Use of ICAO TI 6. Definitions used in air dangerous goods 7. General Transportation Requ 8. Transport by Aircraft	gramme erials transportation of uirements Record Keeping	ICAO 1;4.1 ICAO Forwa ICAO 1;1.1 ICAO 1;3.1 ICAO 1;2 ICAO 1;1.1.1	rd ICAO 1;1 ICAC	0 1;2	Yes	No	NA
General Philosophy  1. Purpose of DG Training Pro 2. Applicable Regulatory Mate 4. Use of ICAO TI 6. Definitions used in air dangerous goods 7. General Transportation Requ 8. Transport by Aircraft 9. Training Requirements and	gramme erials transportation of uirements Record Keeping	ICAO 1;4.1 ICAO Forwa ICAO 1;1.1 ICAO 1;3.1 ICAO 1;2 ICAO 1;1.1.1 ICAO 1;4	rd ICAO 1;1 ICAC	0 1;2	Yes	No	NA N/A
General Philosophy  1. Purpose of DG Training Pro 2. Applicable Regulatory Mate 4. Use of ICAO TI 6. Definitions used in air dangerous goods 7. General Transportation Requ 8. Transport by Aircraft 9. Training Requirements and 10. Dangerous Goods Security	gramme erials transportation of uirements Record Keeping	ICAO 1;4.1 ICAO Forwa ICAO 1;1.1 ICAO 1;3.1 ICAO 1;2 ICAO 1;1.1.1 ICAO 1;4 ICAO 1;5.1	rd ICAO 1;1 ICAC	0 1;2			
General Philosophy  1. Purpose of DG Training Pro 2. Applicable Regulatory Mate 4. Use of ICAO TI 6. Definitions used in air dangerous goods 7. General Transportation Requ 8. Transport by Aircraft 9. Training Requirements and 10. Dangerous Goods Security Limitations	gramme erials transportation of uirements Record Keeping on Aircraft	ICAO 1;4.1 ICAO Forwa ICAO 1;1.1 ICAO 1;3.1 ICAO 1;2 ICAO 1;1.1 ICAO 1;4 ICAO 1;5.1 <b>Applicable (</b>	rd ICAO 1;1 ICAC				
General Philosophy  1. Purpose of DG Training Pro 2. Applicable Regulatory Mate 4. Use of ICAO TI 6. Definitions used in air dangerous goods 7. General Transportation Requ 8. Transport by Aircraft 9. Training Requirements and 10. Dangerous Goods Security Limitations 1. Dangerous goods Forbidden	gramme erials transportation of uirements Record Keeping on Aircraft	ICAO 1;4.1 ICAO Forwa ICAO 1;1.1 ICAO 1;3.1 ICAO 1;2 ICAO 1;1.1 ICAO 1;4 ICAO 1;5.1 <b>Applicable (</b>	rd ICAO 1;1 ICAC				
General Philosophy  1. Purpose of DG Training Pro 2. Applicable Regulatory Mate 4. Use of ICAO TI 6. Definitions used in air dangerous goods 7. General Transportation Requ 8. Transport by Aircraft 9. Training Requirements and 1 10. Dangerous Goods Security  Limitations 1. Dangerous goods Forbidden 2. Exempt Dangerous goods  3. Hidden Dangerous goods	gramme erials  transportation of uirements  Record Keeping  on Aircraft	ICAO 1;4.1 ICAO Forwa ICAO 1;1.1 ICAO 1;3.1 ICAO 1;2 ICAO 1;1.1.1 ICAO 1;4 ICAO 1;5.1 <b>Applicable (</b> ICAO 1;2.1 ICAO 1;2.2 ICAO 1;2.2 ICAO 1;2.2	rd ICAO 1;1 ICAC				
General Philosophy  1. Purpose of DG Training Pro 2. Applicable Regulatory Mate 4. Use of ICAO TI 6. Definitions used in air dangerous goods 7. General Transportation Requ 8. Transport by Aircraft 9. Training Requirements and 1 10. Dangerous Goods Security Limitations 1. Dangerous goods Forbidden 2. Exempt Dangerous goods	gramme erials  transportation of uirements  Record Keeping  on Aircraft	ICAO 1;4.1 ICAO Forwa ICAO 1;1.1 ICAO 1;3.1 ICAO 1;2 ICAO 1;1.1.1 ICAO 1;4 ICAO 1;5.1 <b>Applicable (</b> ICAO 1;2.1 ICAO 1;2.2 ICAO 1;2.2	rd ICAO 1;1 ICAC				

<b>General Requirements For Shippers</b>	<b>Applicable Citations</b>	Yes	No	N/A
1. Shippers Specific Responsibilities and	ICAO 1;1.1 ICAO1;1.2 ICAO 5;1.4			
Compliance to Regulations				
2. Identify and Recognize DG COMAT	ICAO 1;4.2			
3. Specific DG COMAT Exceptions	ICAO 1;2.2			
List of Dangerous goods	Applicable Citations	Yes	No	N/A
1. Purpose and Use of the Dangerous Goods	ICAO 3;2			
Table				
2. Proper Shipping Names	ICAO 2;0.3 3;1.2			
3. Hazard Class (definition)	ICAO 2;0.1			
4. UN/ID Numbers	ICAO 2;0.3			
5. Packing Group	ICAO 2;0.2.4			
General Packing Requirements	Applicable Citations	Yes	No	N/A
1. Shippers Responsibilities	ICAO 5;1.4			
2. General Packing Requirements	ICAO 5;1.1			
3. Packing Instructions and Assignments	ICAO 4;2			
4.Excepted Quantity Exceptions	ICAO 3;5.1			
5. Limited Quantity Exceptions	ICAO 5;4.1			
Labeling and Marking	Applicable Citations	Yes	No	N/A
1. Markings Required on Packages Containing	ICAO 5;2			
Dangerous Goods				
2. Label Required on Packages Containing	ICAO 5;3			
Dangerous Goods				
<b>Dangerous goods Transport Documents and Other Relevant Documentation</b>	Applicable Citations	Yes	No	N/A
1. Shipper's Certification Requirements for	ICAO 5;4.1.6			
Dangerous Goods				
2. Transport Document Requirements	ICAO 5:4 ICAO 7;4.10			
3. Description of Dangerous Goods Required on	ICAO 5;4.1.4 ICAO 5;4.2			
Shipping Papers				
4. Transport Documents for Dangerous Goods	ICAO 7;4			
Aboard Aircraft				
Acceptance Procedures	<b>Applicable Citations</b>	Yes	No	N/A
1. Acceptance and Rejection Procedures and	ICAO 7;1			
Requirements for DG				
2. Passenger and Cargo Provision of Information	ICAO 7;4.7 ICAO 7;5.1			
Requirements				
3. Unit Load Device and Package Inspection	ICAO 7;1.3 ICAO 7;1.4 ICAO 7;3.1			
<b>Recognition of Undeclared Dangerous Goods</b>	Applicable Citations	Yes	No	N/A
1. Hidden Shipment Indicators	ICAO 7;6.1			
2. Suspicious Cargo and Baggage Awareness	ICAO 7;6.1, ICAO 7;5.2.2			
3. Reporting of Accidents and Incidents and	ICAO 7;4.4 ICAO 7;4.5 ICAO 7;4.6			
Undeclared or Misdeclared DG				

Storage and Loading Procedures	Applicable Citations	Yes	No	N/A
1. Unit Load Device and Package Inspection	ICAO 7;2.7 ICAO 7;3.1.2			
3. Stowage Compatibility	ICAO 7;2.2			
4. Orientation of Packages	ICAO 7;2.3 ICAO 5;3.5.2			
5. Securing Packages	ICAO 7;2.4.2			
6. Location of Packages	ICAO 7;2.4.1			
7. Damages from Shipments of Dangerous	ICAO 7;3.3			
Goods				
Pilots' Notification	Applicable Citations	Yes	No	N/A
1. Notification of Pilot-In-Command	ICAO 7;4.1			
2. Emergency Response Information	ICAO 7;4.2 ICAO 7;4.3			
<b>Provisions for Passenger and Crew</b>	Applicable Citations	Yes	No	N/A
1. Dangerous Goods Exceptions	ICAO 1;2.5 ICAO 8.1.1			
<b>Emergency Procedures</b>	Applicable Citations	Yes	No	N/A
1. Use of ICAO Red Book or Similar Reference	ICAO 7;4.8			
Comments:				

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#### **APPENDIX C**

# WILL CARRY DANGEROUS GOODS OPERATIONS MANUAL AND TRAINING PROGRAMME

(AIR OPERATOR NAME)
WILL-CARRY
DANGEROUS GOODS
OPERATIONS MANUAL and
TRAINING PROGRAMME

# **Record of Changes**

## WILL-CARRY DANGEROUS GOODS

# OPERATIONS MANUAL AND TRAINING PROGRAMME

Change Number to Original	Date	Description
Original		

# WILL-CARRY DANGEROUS GOODS OPERATIONS MANUAL AND TRAINING PROGRAMME

(Certificate Hold	der Name)
(Certificate N	(umber)
(Physical Ac	ldress)
(City)	(State) (Zip Code)
(Telephone)	(Fax)
(Signature Block) Corporate Officer	(Signature Block) Responsible Dangerous Goods Officer
Date	Date
Statement	of Intent:
This Dangerous Goods Operations Manual and Trainagents, and contract employees of (certificate hold continually reviewed to ensure compliance with Sta	
Will Transport Commercial Dangerous Goods?	YES NO
Will Transport Own DANGEROUS GOODS Comp	pany Material (COMAT)? YES NO
Training Programme and Manual Approval Recommendation	Training Programme and Manual Approved
Dangerous Goods Branch Manager	Principal Operations Inspector
Date	Date

# <u>DANGEROUS GOODS OPERATIONS MANUAL AND TRAINING PROGRAMME</u> <u>TABLE OF CONTENTS</u>

#### **GENERAL**

# PART ONE: DANGEROUS GOODS OPERATIONS MANUAL

Section	<u>Contents</u>
I	Acceptance Procedures A. Transport Document B. Marking C. Labeling D. Identification of Unit Load Devices E. Rejection of Non-Compliant Dangerous Goods
II	Spares and Company Materials (COMAT)  A. Shipping / Transporting of Spares / COMAT  B. Exceptions for Dangerous Goods of the Operator C. Storage / Disposal of COMAT (Non-Transport)
III	Storage and Loading A. Loading Restrictions B. Incompatible Dangerous Goods C. Inspection and Decontamination D. Emergency Response Information
IV	Provision of Information
V	Provisions Concerning Passengers and Crew
VI	Special Flights / Exemptions
VII	Reporting of Dangerous Goods Accidents and Incidents
PART TV	VO: DANGEROUS GOODS TRAINING PROGRAMME
<u>Section</u>	<u>Contents</u>
I	Requirements
II	Training Curriculum & Reference Table
III	Aspects of Dangerous Goods Air Transportation

# **APPENDICES**

<u>Appendix</u>	<u>Description</u>
A	Hidden Shipment Indicators
В	Dangerous Goods Marking, Labeling & Placarding Guide
C	Dangerous Goods Onboard Aircraft
D	Dangerous Goods Incident Report
E	Acceptance Checklists

#### **WILL-CARRY DANGEROUS GOODS**

#### **OPERATIONS MANUAL AND TRAINING PROGRAMME**

#### **GENERAL**

Notwithstanding the contents of this manual, we are responsible for compliance with all provisions of State operating regulations and the ICAO TI.

A current copy of this manual or appropriate portions thereof shall be made available to ground personnel, maintenance personnel, and crewmembers when performing any Dangerous Goods duties as defined by State operating regulations and the ICAO TI. A current copy of the regulations found in the ICAO TI shall be available at each station.

This Dangerous Goods Operations and Training Programme shall be followed by each crewmember and person performing or directly supervising any of the following job functions involving <u>any item</u> for transport on board, attached to, or suspended from an aircraft: acceptance, rejection, handling, storage incidental to transport, packaging of spares and/or company material, or loading. No employee, agent, or contract employee may prepare Dangerous Goods for shipment, including spares and/or Company Material (COMAT), unless trained in this function.

We shall not use or allow any crewmember or person to perform or directly supervise any job function in the Training Reference Table (Part Two), unless that person has satisfactorily completed our State-approved initial or recurrent Dangerous Goods Programme within the past 24 months.

The notices required to be prominently displayed at cargo acceptance areas and passenger processing areas will be done in accordance with ICAO TI, Part 7.

#### **PART ONE**

#### DANGEROUS GOODS OPERATIONS MANUAL

#### **I.** ACCEPTANCE PROCEDURES (Ref. ICAO TI, Part 7, Chapter 1)

Persons (shippers) offering Dangerous Goods for air transportation are responsible for properly identifying, describing, classifying, packaging, marking, and labeling the materials as required by ICAO TI. Shippers must also comply with all State and operation variations identified in the Dangerous Good List (ICAO TI, Table 3-1).

Employees, agents, and contract employees may rely on the certification and information provided by the shipper to determine if the Dangerous Goods shipment is authorized for air transportation. All employees, agents, and contract employees responsible for the acceptance of cargo or baggage shall be provided a trigger list of indicators of undeclared Dangerous Goods to assist them in their review. (See Appendix A, Hidden Shipment Indicators)

A checklist (**See Appendix F, Acceptance Checklist**) will be used and will include all reasonable steps to ensure that:

- any package containing Dangerous Goods which is damaged or leaking shall be refused without any further processing;
- the material is properly described on the shipping papers;
- the required certification is on the shipping papers;
- the authorized package is marked and labeled as required;
- the shipment is authorized to be transported by aircraft in the condition offered; and
- emergency response information accompanies the shipment.

#### **A. Transport Documents** (Ref: ICAO TI, Part 5, Chapter 4)

Dangerous Goods must be accurately described on the dangerous goods transport document by its UN number, proper shipping name (supplemented with the technical name(s) if required), class or when assigned - division, any assigned subsidiary hazard class or division number(s) in parentheses, and the appropriate packing group. These four elements of the basic dangerous goods description must be provided in the proper sequence. Example: "UN1717, Acetyl chloride, 3 (8), II"

In addition to the basic dangerous goods description, the following information must be included on the dangerous goods document: total quantity of Dangerous Goods covered by the description of each item of Dangerous Good bearing a different proper shipping name, UN number or packing group, the number and type of packaging, and packing instructions.

#### **B.** Marking (Ref: ICAO TI, Part 5, Chapter 2)

The proper shipping name and identification number appearing on the shipping paper shall also be marked on the outside of the package, outside container, or overpack. The name and address of either the consignee or consignor must also be marked on each package. Packages containing liquid Dangerous Goods must be legibly marked/labeled on two opposite vertical sides of the package with the orientation arrows pointing in the correct upright direction, unless otherwise excepted. Any additional marking requirements specified in ICAO TI required for the package or material being shipped must be met (e.g., specification package marking, overpack marking, limited quantity, etc.).

#### C. <u>Labeling</u> (Ref: ICAO TI, Part 5, Chapter 3)

Prior to offering Dangerous Goods for shipment, the package must be properly labeled. Labels are a printed hazard warning. Labels will identify primary and subsidiary hazards specific to the material. They also identify handling instructions.

The labeling requirements are found in ICAO TI, Part 5. Acceptance personnel shall verify that the outside of the package is labeled with the appropriate label(s) from Column 5 of the Table 3-1. Additional handling labels may be required. The "Cargo Aircraft Only" label will be affixed to packages containing a quantity that may be shipped only on cargo aircraft or are forbidden for transport on passenger aircraft but are permitted for transport on cargo only aircraft per Columns 12 and 13 of Table 3-1.

The hazard classes are:

Class 1- Explosives

Class 2- Flammable Gas

Class 3- Flammable Liquids

Class 4- Flammable Solids

Class 5- Oxidizers and Organic Peroxides

Class 6- Toxic and Infectious Substances

Class 7- Radioactive Materials

Class 8- Corrosive Materials

Class 9- Miscellaneous

Markings and labels identifying handling instructions are:

Unless excepted, orientation markings/labels are required on packages containing liquids ( $\uparrow \uparrow$ ).

These markings and labels are depicted on the Dangerous Goods Marking & Labeling Guide. (See Appendix B)

<sup>&</sup>quot;Cargo Aircraft Only" label

<sup>&</sup>quot;Magnetized Material" label

<sup>&</sup>quot;Package Orientation" label

<sup>&</sup>quot;Lithium Battery Handling Label"

#### **D. Identification of Unit Load Devices** (Ref: ICAO TI, Part 7, Chapter 2)

Unit Loading Devices (ULD's)/freight containers containing Dangerous Goods, must be tagged in accordance with ICAO TI, Part 7, Chapter 2, Section 2.7.

#### E. Rejection of Non-Compliant Dangerous Goods

Non-compliant Dangerous Goods shipments shall be rejected and segregated from all other cargo shipments to prevent accidental introduction into the transportation system. A record of rejected shipments should be maintained. Any shipment not in compliance must be properly disposed of or corrected in accordance with State operation regulations and the ICAO TI prior to transportation.

#### II. SPARES and COMPANY MATERIALS (COMAT)

COMAT is an industry term developed and used by certificate holders and is generally used to describe a wide array of company materials including aircraft spares and replacement items for installed equipment and consumable materials. (See Appendix C, Dangerous Goods Onboard Aircraft)

#### **A.** Shipping / Transporting of Spares and/or COMAT (Ref: ICAO TI, Part 5)

All Spares and/or COMAT shall be evaluated and identified by its hazardous or non-hazardous classification. All necessary measures to ensure that the Dangerous Goods COMAT is transported in full compliance of State operating regulations and the ICAO TI shall be taken. The offering of Dangerous Goods COMAT is a shipper function under the Regulations. Shipper's responsibilities include classifying, documenting, declaring, marking, labeling, and packaging a Dangerous Goods shipment. These responsibilities apply to all Dangerous Goods COMAT shipments for any mode of transportation. Anyone who accepts or carries its own Dangerous Goods COMAT is considered a transporter under the regulations. The offering and acceptance functions should be accomplished by separate employees. Employees, agents, and contractors who prepare and/or offer Dangerous Goods shipments for transportation must receive additional function-specific training to satisfy all of the requirements for shippers under ICAO TI, Part 1.

#### **B.** Exceptions for Dangerous Goods of the Operator (Ref: ICAO TI Part 1, Chapter 2)

When an operator transports its own replacement items (spares, COMAT), they can utilize packagings specifically designed for the transport of the aircraft spares and supplies provided that such packagings have at least an equivalent level of protection as required by the ICAO TI.

Electronic devices such as credit card readers, hand-held video units and similar devices containing batteries (e.g. operator owned or supplied used during flight) and any spare batteries, must be transported in accordance with the ICAO TI.

All COMAT received from Repair Stations and Parts Suppliers shall be scrutinized to determine if the material is Dangerous Goods before introducing it into the transportation system.

Refer to ICAO TI, Part 1, Chapter 2 for detailed exceptions for Dangerous Goods of the Operator.

#### C. Storage / Disposal of COMAT (Non-Transport)

Within a facility, all Dangerous Goods aircraft components and consumable materials must be readily identifiable. All of these items such as Chemical Oxygen Generators must be moved, stored and handled in accordance with occupational safety and any other regulatory requirements. Disposal of unserviceable aircraft components and consumable materials must be done in accordance with all State environmental requirements.

#### III. STORAGE AND LOADING (Ref: ICAO TI, Part 7, Chapter 2)

No employee, agent, or contract employee, unless trained in this function, may load or transport aboard an aircraft any Dangerous Goods unless the shipment has met acceptance and packaging requirements, and the Pilot-In-Command notification has been completed.

#### A. Loading Restrictions

Dangerous Goods must not be carried in an aircraft cabin occupied by passengers or on the flight deck of the aircraft (unless permitted or excepted in ICAO TI). Dangerous Goods bearing the "Cargo aircraft only" label must not be carried on passenger aircraft. Dangerous Goods may be carried in a main deck cargo compartment of a passenger carrying aircraft provided the compartment meets certification for Class B or C aircraft cargo compartment.

#### **B.** Incompatible Dangerous Goods

For stowage on an aircraft, in a cargo facility, or at any other area at an aerodrome designated for the stowage of Dangerous Goods, packages containing Dangerous Goods which might react dangerously with one another may not be placed next to each other or in a position that would allow a dangerous interaction in the event of leakage. At a minimum, the segregation instructions prescribed in Table 7-1, Segregation Between Packages, of the ICAO TI <u>must</u> be followed to maintain acceptable segregation between packages containing Dangerous Goods with different hazards. The Segregation Table instructions apply whether or not the class or division is the primary or subsidiary risk. (Ref: ICAO TI, Part 7, Chapter 1, Table 7-1)

<u>Toxics:</u> Packages bearing the toxic or infectious substance label may not be stowed in a ground facility or transported in the same compartment of an aircraft with material known to be foodstuffs, feed, or any other edible material intended for consumption by humans or animals unless loaded in separate ULD's which are not adjacent to each other.

Radioactive Materials (RAM): While in transport or storage, no more than 50.0 Transport Index (TI) of RAM may be stored in any one group of packages. Any group of packages containing 50.0 TI must be separated from any other package or group of packages containing RAM by a distance of 20 feet. No package or group of packages may be placed in a position that is closer to that position which may be continuously occupied by people or animals or to undeveloped film than the distances allowed in ICAO TI.

<u>Carbon Dioxide, solid / Dry Ice</u>: May be carried only if the suitable arrangements have been made based on aircraft type, aircraft ventilation rates, the method of packing and stowing, and whether animals will be carried. The operator must ensure ground staff is informed that dry ice is being loaded or is on board.

Orientation and Securing of Dangerous Goods Packages - A package containing Dangerous Goods marked or labeled to indicate proper orientation will be loaded and secured in accordance with such markings or labels. Liquid Dangerous Goods without such markings will be loaded and secured with closures up. Dangerous Goods packages will be secured to prevent any movement in flight that would result in damage to or change in orientation of the packages.

#### **Dangerous Goods Location and Quantity Limitations Aboard Aircraft**

No Dangerous Goods package may be carried in the cabin of a passenger-carrying aircraft or on the flight deck of any aircraft. Dangerous Goods may be carried in a main deck cargo compartment of a passenger aircraft provided that the compartment is inaccessible to passengers and that it meets all certification requirements for a Class B or Class C aircraft cargo compartment.

#### Cargo-Only Aircraft (CAO) Packages

Each CAO package must be loaded in such a manner that a crew member or other authorized person can see, handle, and when size and weight permit, separate such packages from other cargo during flight.

#### C: <u>INSPECTION AND DECONTAMINATION</u> (ICAO TI, Part 7, Chapter 3)

<u>Inspection for Damage or Leakage</u> - No employee, agent, or contract employee shall load any package, outside container, or overpack containing Dangerous Goods aboard an aircraft, into a freight container, or onto a pallet prior to loading it aboard an aircraft unless <u>immediately</u> before doing so that person has inspected the exterior of the package, outside container, or overpack and determined that it has no holes, leakage, or other obvious indications that its integrity has been compromised.

Unit Load Devices (ULDs) containing Dangerous Goods must be inspected for damage or leakage prior to being loaded on the aircraft. Packages, overpacks, or ULDs containing Dangerous Goods must be inspected after being unloaded from the aircraft. Any evidence of leakage or damage requires further inspection of the aircraft and the ULD where the Dangerous Goods were stowed.

If the PIC loads the aircraft, that individual must perform the pre-board inspection required. If someone other than the PIC loads the aircraft and conducts the pre-board inspection, that person shall provide the PIC with written notification.

#### **Damaged or Leaking Packages of Radioactive Material**

Damaged or leaking packages must not be loaded on board any aircraft. If damage or leakage is evident, access to the package(s) must be restricted and response taken by qualified personnel.

**Radioactive Contamination** – Aircraft and equipment used routinely for the transport of Class 7 (radioactive) materials shall be periodically checked for radioactive contamination. If the level of contamination exceeds 5 mSv/h at the surfacer the aircraft must be taken out of service and may not again be placed in service or routinely occupied until the radiation dose rate at any accessible surface is less than 5 mSv/h and there is no significant removable radioactive surface contamination.

#### **D:** Emergency Response Information (Ref: ICAO TI, Part 7, Chapter 4)

A Dangerous Goods shipment shall not be accepted without emergency response information being immediately available. Emergency response information means information that can be used in the mitigation of an accident or incident involving Dangerous Goods. This information may come in the form of a Material Safety Data Sheet (MSDS), the ICAO "Emergency Response Guidance for Aircraft Incidents Involving Dangerous Goods" (ICAO Redbook), or equivalent information as provided by the shipper. Emergency response information must be immediately available where Dangerous Goods are received, stored, or handled during transportation. Also, emergency response information must also be immediately available onboard the aircraft while Dangerous Goods are being transported.

#### IV. **PROVISION OF INFORMATION** (Ref: ICAO TI, Part 7, Chapter 4)

The Pilot-In-Command (PIC) must be given accurate and legibly written information as early as practicable before departure regarding the Dangerous Goods proper shipping name, hazard class, identification number, packing group, total packages, and net quantity or gross weight for each Dangerous Good, location aboard the aircraft and confirmation that no damage or leaking packages have been loaded. For RAM, the number of packages, overpacks, or ULD's/freight containers, category, transport index (if applicable), and their location aboard the aircraft are required.

The telephone number of a person not aboard the aircraft from whom the information contained in the notification of the PIC can be obtained may be included on the notification.

A copy of each notification of pilot-in-command must be retained at the airport of departure or the operator's principal place of business for 90 days.

#### V. PROVISIONS CONCERNING PASSENGERS AND CREW (Ref: ICAO TI Chapter 7-8)

The notices required to be prominently displayed at cargo acceptance areas and passenger processing areas will be done in accordance with ICAO TI, Part 7.

Information on those Dangerous Goods which may be carried by passengers are available on our website at <a href="https://www.xxxx.xxx">www.xxxx.xxx</a>. Certain Dangerous Goods that are normally regulated are excepted from the ICAO TI. All available exceptions are listed in ICAO TI, Part 8, Chapter . We will follow the ICAO TI requirements for the acceptance and transport of these excepted items unless otherwise specified.

Remote passenger check in features for provision of Dangerous Goods information are in place as required by ICAO TI. No person may check in passengers unless adequately trained in our training programme. Passenger check staff will seek confirmation from passengers that they are not carrying Dangerous Goods that are not permitted and will seek further confirmation for about the contents of items where there are suspicions that the item may contain Dangerous Goods.

#### VI. SPECIAL FLIGHTS / EXEMPTIONS

Special Flight Operations must be conducted in accordance with State operating regulations, Exemptions and/or approval.

Flights made under the provisions of State exemption or approval must comply with the conditions specified in the exemption or approval.

Any approved exemption or approval shall be retained as an Appendix to this manual.

# **VII.** <u>REPORTING OF DANGEROUS GOODS ACCIDENTS AND INCIDENTS</u> (Ref: ICAO TI, Part 7, Chapter 4)

We will report all Dangerous Goods accidents and incidents to the appropriate authorities as required by our State operating regulations and the ICAO TI.

Addtionally, we will report all undeclared and/or misdeclared Dangerous Goods that are discovered in cargo, mail or passenger baggage as required by our State operating regulations and the ICAO TI.

#### **PART TWO**

#### DANGEROUS GOODS TRAINING PROGRAMME

#### I. REQUIREMENTS

No crewmember or person shall perform or directly supervise any Dangerous Goods job function to include acceptance, rejection, handling, storage incidental to transport, packaging of company material (COMAT), or loading of cargo and baggage, unless that person has satisfactorily completed our State-approved initial or recurrent Dangerous Goods Programme within the past 24 months.

A record of the satisfactory completion of the initial and recurrent hazmat training for each individual within the preceding 3 years shall be maintained. These records will be available at the location where the personnel perform such duties, and will be maintained for as long as the employee is performing Dangerous Goods duties, and for 90 days thereafter. Training records for all direct employees, independent contractors, subcontractors, and any other person who performs or directly supervises a DANGEROUS GOODS function must be available upon request. Records may be maintained electronically and provided on location electronically.

The content of the DANGEROUS GOODS Training Records must include:

- 1. The individuals name,
- 2. The most recent training completion date,
- 3. A description, copy or reference to training materials used to meet the training requirement,
- 4. The name and address of the organization providing the training, and
- 5. Evidence which shows that a test has been completed satisfactorily.

#### II. TRAINING CURRICULUM & REFERENCE TABLE

All materials and regulations used in our training curriculum must be current and valid at the time of the training.

Our training Programme will satisfy the requirements in the Training Reference Table as outlined in the ICAO TI, Table 1-4. The training required is based on the functions being performed. Each trained person will be able to recognize items that contain or may contain regulated Dangerous Goods. A method to answer all questions prior to testing regardless of the method of instruction will be provided. We will certify that each trainee has been satisfactorily tested and verify understanding of the Dangerous Goods regulations and our policies.

Table 1-4 Content of Training Courses

Aspects of transport of dangerous goods by air with which they	Shippers		Freight forwarders			Operators and ground handling agents						Security staff
should be familiar, as a minimum	1	2	3	4	5	6	7	8	9	10	11	12
General philosophy	X	X	X	X	X	X	X	X	X	X	X	X
Limitations	X		X	X	X	X	X	X	X	X	X	X
General requirements for shippers	X		X			X						
Classification	X	X	X			X						X
List of dangerous goods	X	X	X			X				X		
Packing requirements	X	X	X			X						
Labelling and marking	X	X	X	X	X	X	X	X	X	X	X	X
Dangerous goods transport document and other relevant documentation	X		X	X		X	X					
Acceptance procedures						X						
Recognition of undeclared dangerous goods	X	X	X	X	X	X	X	X	X	X	X	X
Storage and loading procedures					X	X		X		X		
Pilots' notification						X		X		X		
Provisions for passengers and crew	X	X	X	X	X	X	X	X	X	X	X	x
Emergency procedures	X	X	X	X	X	X	X	X	X	X	X	X

#### KEY

- Shippers and persons undertaking the responsibilities of shippers
- Packers
- Staff of freight forwarders involved in processing dangerous goods
- Staff of freight forwarders involved in processing cargo, mail or stores (other than dangerous goods)
- Staff of freight forwarders involved in the handling, storage and loading of cargo, mail or stores
- Operator's and ground handling agent's staff accepting dangerous goods
  Operator's and ground handling agent's staff accepting cargo, mail or stores (other than dangerous goods)
- Operator's and ground handling agent's staff involved in the handling, storage and loading of cargo, mail or stores and baggage
- 9 Passenger-handling staff 10 Flight crew members and load planners
- 11 Crew members (other than flight crew members)
- 12 Security staff who are involved with the screening of passengers and their baggage and cargo, mail and stores, e.g. security screeners, their supervisors and staff involved in implementing security procedures

#### III. ASPECTS OF DANGEROUS GOODS AIR TRANSPORTATION

At a minimum, our Dangerous Goods training Programmes will include the following information for each aspect of Dangerous Goods air transportation.

#### **General Philosophy**

- Dangerous Goods Training Programme ~ State Regulations and ICAO TI, Part 1
- Applicable Regulatory Materials ICAO TI
- Overview of ICAO TI
- Use of ICAO TI
- Definitions Used in Air Transportation of Dangerous Goods ~ ICAO TI, Part 1
- General Transportation Requirements ~ ICAO TI, Part 1
- Transport by Aircraft ~ ICAO TI, Part 7
- Training Requirements and Recordkeeping ~ ICAO TI, Part 1
- Enforcement State Operating Regulations
- Dangerous Goods Security ICAO TI, Part 1

#### Limitations

- Dangerous Goods Forbidden on Aircraft Under any Circumstances ICAO TI, Part 1
- Hidden Dangerous Goods ICAO TI, Part 7
- Dangerous Goods Carried by Passenger or Crew ICAO TI, Part 7-8

#### **General Requirements For Shippers**

- Shippers Specific Responsibilities and Compliance to Regulations ICAO TI, Part 5
- Identify and Recognize Dangerous Goods COMAT
  - Dangerous Goods Onboard Aircraft ~ Appendix C
  - Replacement Components
  - Consumable Materials
- Specific DANGEROUS GOODS COMAT Exceptions ~ ICAO TI, Part 1

#### **Classification**

- Dangerous Goods Classification ~ ICAO TI, Part 2
- Unacceptable Dangerous Goods ~ ICAO TI, Part 7

#### **List of Dangerous Goods**

- Purpose and Use of the Dangerous Goods List ~ ICAO TI, Part 3
- Proper Shipping Names ~ ICAO TI, Part 3
- Hazard Class (Definitions) ~ ICAO TI, Part 2
- UN/ID Numbers ~ ICAO TI, Part 3
- Packing Group ~ ICAO TI, Par 3

#### **General Packing Requirements**

- Shippers Responsibilities ~ ICAO TI, Part 5
- General Packing Requirements ~ ICAO TI, Part 4
- Packing Instructions and Assignments ~ ICAO TI, Part 4
- Excepted quantities ~ ICAO TI, Part 3
- Limited Quantity Exceptions ~ ICAO TI, Part 3

#### **Labeling and Marking**

- Markings Required on Packages Containing Dangerous Goods ~ ICAO TI, Part 5
- Labels Required on Packages Containing Dangerous Goods ~ ICAO TI, Part 5

#### **Dangerous Goods Transport Document and Other Relevant Documentation**

- Transport Document Requirements ~ ICAO TI, Part 5
- Air waybill requirements ICAO TI, Part 5
- Additional documentation ICAO TI, Part 5
- Retention of transport information ~ ICAO TI, Part 5

#### **Acceptance Procedures**

- Acceptance and Rejection ICAO TI, Part 7
- Passenger and Cargo Provision of Information ~ ICAO TI, Part 7
- Unit Load Device and Package Inspection ~ ICAO TI, Part 7

## **Recognition of Undeclared Dangerous Goods**

- Hidden Shipment Indicators ~ ICAO TI, Part 7
- Suspicious Cargo and Baggage Awareness ICAO TI, Part 7
- Reporting of Accidents and Incidents ICAO TI, Part 7

#### **Storage and Loading Procedures**

- Unit Load Device and Package Inspection ~ ICAO TI, Part 7
- Quantity Limitations aboard Aircraft ~ ICAO TI, Part 3
- Stowage Compatibility ~ ICAO TI, Part 7
- Orientation of Packages ~ ICAO TI, Part 7
- Securing Packages ~ ICAO TI, Part 7
- Location of Packages ~ ICAO TI, Part 7
- Damaged Shipments of Dangerous Goods ~ ICAO TI, Part 7
- Notification to Pilot-In-Command ~ ICAO TI, Part 7
- Emergency Response Information ~ ICAO TI, Part 7

#### **Provisions for Passenger and Crew**

• Dangerous Goods Exceptions ~ ICAO TI, Part 8

#### **Emergency Procedures**

• Use of ICAO Red Book or similar reference (Onboard Aircraft)

#### APPENDIX A

#### **HIDDEN SHIPMENT INDICATORS**

Cargo and baggage that are offered under a general description might have hazards that are not apparent. The Dangerous Goods List in the ICAO TI is not complete, and shippers and passengers may not be aware of this. Some of these consignments have caused incidents that could have seriously endangered the safety of the aircraft and/or its passengers.

Please be alert to these possible hazards. Items found containing a Dangerous Goods need to be shipped in accordance with the ICAO TI.

NAME	REMARKS
Aircraft Parts/COMAT	May indicate the presence of chemical oxygen generators,
	flammable liquids/solids, corrosives, compressed gases,
	radioactive materials in aircraft parts and accessories, or
	general company materials.
Automobile Parts (car, motor, motorcycle)	May contain cellulose paints, wet batteries, shocks/struts
	with nitrogen, air bag inflators/air bag modules, etc.
Breathing Apparatus/SCUBA	May indicate compressed air or oxygen cylinders
Bull (or other animal) Semen	May involve use of refrigerant (e.g., Liquid Nitrogen)
Camping Equipment	May contain flammable liquids, gas, or solids
Chemicals	Often found to be hazardous
Cryogenic (Liquid)	Indicates low temperature, low pressure, or non-pressurized
	gas such as Argon, Helium, Neon, and Nitrogen
Cylinders	May indicate compressed gas
Dental Apparatus	May contain hazardous chemicals such as resins or solvents
Electrical Equipment	May contain magnetized materials or mercury in switch
	gear and electron tubes
Electrically Powered	May contain wet batteries apparatus (wheelchairs, lawn
	mowers, golf carts, etc.)
Frozen Fruits, Vegetables	May be packed in Dry Ice (Solid Carbon Dioxide)
Household Goods	May contain Dangerous Goods such as paint, aerosols,
	bleaching powder, etc.
Instruments	May conceal barometers, manometers, mercury switches,
	rectifier tubes, thermometers containing mercury
Laboratory/Testing	May contain various hazardous chemicals
Machinery Parts	May include hazardous chemicals (adhesives, paints,
	sealants, solvents, etc.)
Medical Supplies/Equipment (Test Kits)	May contain various hazardous chemicals
Pharmaceuticals	May contain various hazardous chemicals
Photo Supplies	May contain various hazardous chemicals
Refrigerators	May contain various hazardous chemicals
Repair Kits	May contain various Dangerous Goods (adhesives,
	solvents, cellulose paints, organic peroxides, etc.)
Samples for Testing	May contain various Dangerous Goods (including
	infectious substances)
Swimming Pool Supplies	May contain acid, chlorine

Switches in Electrical Equipment or	May contain mercury				
Instrument					
Tear Gas Dispensers	Contains irritating material or pepper gas which is				
	forbidden on passenger aircraft				
Toys	May be made of celluloid or other flammable material				
Tool Boxes	May contain Flammable gases, liquids, adhesives,				
	Cleaners, Corrosives, Oxidizers, etc.				
Vaccines	May be packed in Dry Ice (Solid Carbon Dioxide)				

**Note 1:** Articles which do not fall within the Dangerous Goods definitions of ICAO TI and which, in the event of leakage, may cause serious cleanup problems or corrosion to aluminum on a long term basis, must be checked by the shipper to at least ensure that the packaging is adequate to prevent leakage during transportation. These may include brine, powered or liquid dyes, pickled foodstuffs, etc.

**Note 2:** Magnetized material, as defined in ICAO TI, with a gauss reading between 0.002 gauss and 0.00525 gauss, requires a magnetized material label.

#### APPENDIX B

# **Dangerous Goods Marking & Labeling Guide**

# SEE ATTACHED

#### **APPENDIX C**

### **Dangerous Goods Onboard Aircraft**

Delete this box and utilize this space to add a picture(s) of representative aircraft for your fleet and annotate where the various items listed below are located on the aircraft.

Spaces 18-20 in the list below can be utilized for additional items applicable to your aircraft that are not already listed.

1. Batteries, Aircraft	11. Oxygen Bottles, Crew System, Gaseous
2. Engine Oil (as hazardous waste)	12. Oxygen Bottles, Passenger System, Gaseous (Standard)
3. Escape Slides/Life Rafts	
<b>4. Fire Bottles</b> (APU, engines, lower cargo compartment, and lavatory waste containers)	<b>13. Oxygen Generators</b> (optional: each PSU standard: each attendant station and lavatory)
compartment, and lavatory waste containers)	14. Rain Repellant
<b>5. Fire Extinguishers</b> (attendant stations, closets, galleys, etc.)	15. Refrigerant (located in each galley)
6. Fuel	16. Smoke Hoods
<ul><li>6. Fuel</li><li>7. Hydraulic Fluid, Reservoirs (as hazardous waste)</li></ul>	<ul><li>16. Smoke Hoods</li><li>17. Tritium Radioactive Signs (aisle and emergency exit doors)</li></ul>
7. Hydraulic Fluid, Reservoirs (as hazardous	17. Tritium Radioactive Signs (aisle and
<ul><li>7. Hydraulic Fluid, Reservoirs (as hazardous waste)</li><li>8. Uranium (depleted, counter-balance</li></ul>	17. Tritium Radioactive Signs (aisle and emergency exit doors)

### APPENDIX D

# **Dangerous Goods Accident / Incident Report:**

**APPENDIX E**Non-Radioactive

# ACCEPTANCE CHECKLIST Non-Radioactive

#### **APPENDIX E**

#### DANGEROUS GOODS CHECKLIST FOR A NON-RADIOACTIVE SHIPMENT

The recommended check list appearing on the following pages is intended to verify shipments at origin. Never accept or refuse a shipment before all items have been checked.

Is the following information correct for each entry?

# SHIPPERS DECLARATION FOR DANGEROUS GOODS (DGD)

	YES	NO	* N/A	10.0	YES	NO*	N/A
1. Two copies in English format	Ш	П		<ul><li>18. Overpack</li><li>- Indication "Overpack used"</li></ul>			
2. Full name and address of Shipper				- Compatible			
3. Full name and address of Consignee				- Multi-overpack marks and quantity	П	П	П
4. Name and telephone number of a person responsible for Division 6.2 Infectious Substance shipment				<b>Packing Instructions</b>	_	_	_
5. If the Air Waybill is not shown, enter it				19. Packing Instruction Number			
6. The number of pages shown				Authorizations			
7. If full name of Airport or City of Departure or Destination is not shown, enter it				20. Indication of "Limited Quantity" or "Ltd. Qty." if "Y" packing instruction used			
8. The non-applicable Aircraft Type deleted				21. The Special Provision Number if A1,A2			
9. The word "Radioactive" deleted				A51, A81, or A109	_	_	
Identification				<ol> <li>Indication that governmental authorization is attached, including a copy in English</li> </ol>			
10. UN or ID Number, preceded by prefix				23. Additional approvals as needed			
11. Proper Shipping Name and the technical name in parentheses for asterisked entries				Additional Handling Info	rm	atio	on
12. Class or Division, and for Class 1, the Compatibility Group				24. For self-reactive and related substances of Division 4.1 and organic peroxides of Division 5.2, or samples thereof, and for P.	□ BE		
13. Subsidiary Risk, in parentheses immediately following the Primary				is the mandatory statement shown	П		
14. Packing Group	П	П	П	25. Shipper's certification for air transport			
	  _ <u></u>	_		26. Name and Title of Signatory, Place and Date indicated	Ш	Ц	Ш
Quantity and Type of Pac	King	5		27. Signature of Shipper			
15. Number and Type of Packages				28. Amendment or alteration signed by			
16. Quantity and unit of measure (net or gross, as applicable) per package				Shipper			
17. If different dangerous goods are packed				Air Waybill			
in one outer packaging, are the following rules applied: - Compatible (note exception for chemical kits/first aid kits. See packing Instruction 915				29. The Handling Information box shows: "Dangerous goods as per attached Shipper's Declaration" or Dangerous Goods as per attached DGD"			
and Y915) - For UN packages containing Division				30 "Cargo Aircraft Only" or "CAO", if applicable			
6.2 - "All packed in one (type of packaging)"				••			
- Calculation of "Q" value							

Package(s) and Overpacks	YES	NO*	N/A	43 The Subsidiary Hazard Label(s), next YES NO* N/A
31. Packaging conforms with packing instructions and is undamaged				to Primary Risk Label  44. Cargo Aircraft Only label, adjacent to
32. Same number and type of packagings and overpacks delivered as shown on DGD and is undamaged				Hazard label(s)  45. "Orientation" labels
Markings				46. For Magnetized Material, the Handling
33. For UN Specification Packaging, are they				47. "Cryogenic Liquid" labels
marked				48. "Keep Away From Heat" label if required \( \square\)
- Symbol and Specification Code				49. All above labels correctly affixed and
- X, Y, Z, agreed with Packing Group/ Packing Instruction				have all irrelevant marks and labels been removed
Maximum Gross Weight not exceeded (solids or inner packagings)				For Overpacks
- Infectious substance package marking				50. If specification markings are not visible,
34. The UN or ID Number(s) and Proper Shipping Name(s) including technical name				other authorized indication marked
where required		_		51. Packaging Use markings as required
35. The full name(s) and Address(es) of Shipper and Consignee	Ш			the outside of the overpack
36. The Net Quantity of Explosives and Gross Weight of the package for Class 1 items				52. If more than one overpack, identification
37. The Name and telephone Number of a person responsible for Division 6.2				53. "Cargo Aircraft Only" restrictions
Infectious Substances shipment				General
38. The Special Marking requirements shown for Packing Instruction 202				54. State and Operator variations complied
39. In the case of Carbon Dioxide, Solid (Dry Ice), the Net Weight marked on the				
Package				55. For "Cargo Aircraft Only" shipments, a
40. For Limited Quantity packagings: "Limited Quantity" or "LTD. QTY."				cargo anotait operates on an sectors
41. For Salvage Packagings: "Salvage"				
Labeling				
42. The Primary Risk Label(s), with Class or Division Number affixed to each package	Ш	П		
Comments:				
Checked by:				
Place:				Signature:
Date:				
Time				

<sup>\*</sup>IF ANY QUESTION IS ANSWERED WITH A "NO", DO NOT ACCEPT THE SHIPMENT AND GIVE A DUPLICATE COPY OF THIS COMPLETED FORM TO THE SHIPPER.

# **ACCEPTANCE CHECKLIST Radioactive**

#### DANGEROUS GOODS CHECKLIST FOR A RADIOACTIVE SHIPMENT

The recommended check list appearing on the following pages is intended to verify shipments at origin. Never accept or refuse a shipment before all items have been checked. **Is the following information correct for each entry?** 

#### SHIPPERS DECLARATION FOR DANGEROUS GOODS (DGD)

1 m · · · · · · · · · · · · · · · · · ·	YES	_	* N/A		YES	NO;	* N/A
Two copies in English format	Ш	Ш		<b>Packing Instructions</b>			
2. Full name and address of Shipper				20. Category of package(s) or overpack			
3. Full name and address of Consignee				21. Transport Index and dimensions for			
4. If the Air Waybill is not shown, enter it				Category II and Category III only			
5. The number of pages shown				22. For Fissile Material the Criticality Safety Index			
6. The non-applicable Aircraft Type deleted				23. "Fissile Excepted"			
7. If full name of Airport or City of Departure Destination is not shown, enter it				Authorizations			
8. The word "Non-Radioactive" deleted  Identification				24. Identification marks shown and a copy of the document in English attached to DGD for the following			
Identification				for the following	_	_	_
9. UN Number, preceded by prefix				- Special Form approval certificate	Ш	Ш	
10. Proper Shipping Name				Low dispersible material approval certificate			
11. Class 7				- Type B package design approval certificate			
12. Subsidiary Risk				Type B (M) package shipment approval certificate			
13. Packing Group if required for Subsidiary Risk				- Type C package design and shipment approval			
•				- Fissile material package design and shipment approval certificate			
Quantity and Type of Pacl	kıng	3		- Special Arrangement shipment approval certificate			
14. Name or Symbol of Radionuclide(s)				25. Additional Handling Information			
15. A description of the physical and Chemical form, or Special Form, or low dispersible				26. Shipper's certification for air transport			
material				27. Name and Title of Signatory, Place, and Date			
16. The number and type of packages and the activity in Becquerels in each package,		Ш		28. Signature of Shipper			
or for Fissile Material the total weight in grams or kilograms of fissile material may be shown in place of activity				29. Amendment or alteration signed by			
17. For different individual radionuclides, the activity of each radionuclide and the words				Air Waybill			
"All packed in one"  18. Activity within limits for Type A packages, Type B, or Type C				30. The Handling Information box shows: "Dangerous goods as per attached Shipper's Declaration" or "Dangerous Goods as per attached DGD	Ц	П	
19. Words "overpack used" shown on				31. Cargo Aircraft Only or CAO if applicable			

	YES	NO	* N/A		YES	NO:	* N/A
Package(s) and Overpack	KS			44. Two Cargo Aircraft Only labels, if			
20.37				required, adjacent to the Hazards labels to the Radioactive labels			
32. Number and type of packagings and overpacks delivered as shown on DGD	П	П	Ц	completed	_	_	_
33. Unbroken transportation seal and package in proper condition for transport				45. For fissile materials, two correctly completed Criticality Safety Index (CSI) labels on opposite sides			
Markings				46. All labels correctly affixed and irrelevant marks and labels removed			
34. The UN Number and Proper Shipping Name				For Overpacks			
35. The full Name and Address of the Shipper and Consignee				47. Package markings as required must be clearly visible or reproduced on outside of the overpack			
36. For Industrial packages, are they marked appropriately							
37. For Type A packages are they marked appropriately				identification marks shown and the total quantity of dangerous goods			
38. For Type B packages, are they marked appropriately				<ol> <li>Packaging markings as required must be clearly visible or reproduced on the outside of the overpack</li> </ol>			
39. For Type C packages, are they marked appropriately				General			
40. For Fissile material, are they marked appropriately				50. State and Operator variations complied with			
41. The permissible gross weight if it exceeds 50 kg				51. For Cargo Aircraft Only shipments, a cargo aircraft operates on all sectors			
Labeling				52 For packages containing Cargo Dioxide Solid (dry ice), have the marking, labeling			
42. Two correctly completed Radioactive labels on opposite sides				and documentary requirements been applied			
43. Applicable Subsidiary Hazard labels adjacent to the Radioactive label completed							
Comments:							
Checked by:							
Place:				Signature:			
Date:							
Time:							
*IF ANY QUESTION IS ANSWERED WITH	A "NO	)", D(	O NOT	ACCEPT THE SHIPMENT AND GIVE A DUP	LICA	TE C	OPY

OF THIS COMPLETED FORM TO THE SHIPPER.

#### APPENDIX D

# WILL NOT CARRY DANGEROUS GOODS OPERATIONS MANUAL AND TRAINING PROGRAMME

(AIR OPERATOR NAME)
WILL-NOT CARRY
DANGEROUS GOODS
OPERATIONS MANUAL and
TRAINING PROGRAMME

# **Record of Changes**

# WILL-NOT CARRY DANGEROUS GOODS OPERATIONS MANUAL AND TRAINING PROGRAMME

Change Number to Original	Date	Description
Original		

# WILL-NOT CARRY DANGEROUS GOODS OPERATIONS MANUAL AND TRAINING PROGRAMME

(Certificate Hole	der Name)	
(Certificate N	lumber)	
(Physical Ac	ddress)	
(City)	(State)	(Zip Code)
(Telephone)		(Fax)
(Signature Block) Corporate Officer		Signature Block) e Dangerous Goods Officer
Date		Date
Statement	of Intent:	
(certificate holder name) will not accept and/or kn ICAO TI onboard our aircraft. This Dangerous God intended to ensure that our employees, agents, and regarding our policies and procedures as a Will-NO will be continually reviewed to ensure compliance of	ods Operations M contract employee oT carry certificate	anual and Training Programme is es are prepared and knowledgeable holder. This manual/programme
Training Programme and Manual Approval Recommendation State Dangerous Goods Branch Manager		Training Programme and Manual Approved State Principal Operations Inspector
Date		Date

#### 1 DANGEROUS GOODS OPERATIONS MANUAL AND TRAINING PROGRAMME

#### **TABLE OF CONTENTS**

#### **GENERAL**

PART ONE: DANGEROUS GOODS OPERATIONS MANUAL

Section Contents

I Responsibilities

#### II SPARES and COMPANY MATERIALS (COMAT)

A. Shipping / Transporting of Spares and/or COMAT
B. Exceptions for Dangerous Goods of the Operator
C. Storage / Disposal of Commit (Non-Transport)

III Pre-Board Inspection

IV Provisions Concerning Passengers and Crew

V Prohibited Operations as a Will-NOT Carry

VI Reporting of Dangerous Goods Accidents and Incidents

#### PART TWO: DANGEROUS GOODS TRAINING PROGRAMME

Section Contents

I Requirements

II Training Curriculum & Reference Table

III Aspects of Dangerous Goods Air Transportation

#### **APPENDICES**

#### Appendix Description

A Hidden Shipment Indicators

B Dangerous Goods Marking & Labeling Guide

C Dangerous Goods Onboard Aircraft

D Dangerous Goods Accident / Incident Report

#### WILL-NOT CARRY DANGEROUS GOODS

#### OPERATIONS MANUAL AND TRAINING PROGRAMME

#### **GENERAL**

Notwithstanding the contents of this manual, we are responsible for compliance with all provisions of State operating regulations and the ICAO TI.

A current copy of this manual or appropriate portions thereof shall be made available to ground personnel, maintenance personnel, and crewmembers when performing any Dangerous Goods duties.

This Dangerous Goods Operations and Training Programme shall be followed by each crewmember and person performing or directly supervising any of the following job functions involving <u>any item</u> for transport on board, attached to, or suspended from an aircraft: Acceptance, Rejection, Handling, Storage incidental to transport, Packaging of company material, or Loading. No employee, agent, or contract employee may prepare Dangerous Goods for shipment, including spares and/or Company Material (COMAT), unless trained in this function.

We shall not use or allow any crewmember or person to perform or directly supervise any job function in the Training Reference Table (Part Two), unless that person has satisfactorily completed our State-approved initial or recurrent Dangerous Goods programme within the past 24 months.

The notices required to be prominently displayed at cargo acceptance areas and passenger processing areas will be done in accordance with ICAO TI, Part 7.

#### **PART ONE**

#### DANGEROUS GOODS OPERATIONS MANUAL

#### **I. RESPONSIBILITIES** (Ref: ICAO TI, Part 7, Chapter 1)

The general transportation requirements of ICAO TI state that shippers of Dangerous Goods must properly declare any such material at the time it is offered for transportation to the carrier. The information provided by the shipper may be relied upon to determine if the shipment is authorized for air transportation. Therefore, it is acceptable practice to assume that a Dangerous Goods package may be recognized by its conspicuous markings and label(s), which are required to be displayed on the outside of the package, and by the transport document(s) which must be a part of the offering and must accompany the shipment during transportation.

Shippers/Passengers may be unaware of the requirements for offering and transporting Dangerous Goods. When accepting cargo or baggage, it may be necessary to question persons offering these items to determine the exact contents and thereby prevent the inadvertent acceptance and transport of Dangerous Goods. All cargo or baggage and any documents tendered with the shipment will be reviewed for an indication that the item(s) are Dangerous Goods. All employees, agents, and contract employees shall be provided a trigger list of indicators of undeclared Dangerous Goods to assist them in their review. (See Appendix A, Hidden Shipment Indicators)

Any package that displays a Dangerous Goods marking or label, or otherwise is known or suspected of containing Dangerous Goods, will not be accepted for air transportation or loaded aboard an aircraft.

#### II. SPARES and COMPANY MATERIALS (COMAT)

COMAT is an industry term developed and used by certificate holders and is generally used to describe a wide array of company materials including aircraft spares and replacement items for installed equipment and consumable materials. (See Appendix C, Dangerous Goods Onboard Aircraft)

#### **A. Shipping / Transporting of Spares and/or COMAT** (Ref. ICAO TI, Part 5)

All Spares and/or COMAT shall be evaluated and identified by its hazardous or non-hazardous classification. All necessary measures to ensure that the Dangerous Goods COMAT is transported in full compliance of State operating regulations and the ICAO TI shall be taken. The offering of Dangerous Goods COMAT is a shipper function under the Regulations. Shipper's responsibilities include classifying, documenting, declaring, marking, labeling, and packaging a Dangerous Goods shipment. These responsibilities apply to all Dangerous Goods COMAT shipments for any mode of transportation. Anyone who accepts or carries its own Dangerous Goods COMAT is considered a transporter under the regulations. The offering and acceptance functions should be accomplished by separate employees. Employees, agents, and contractors who prepare and/or offer Dangerous Goods shipments for transportation must receive additional function-specific training to satisfy all of the requirements for shippers under ICAO TI, Part 1.

#### **B.** Exceptions for Dangerous Goods of the Operator (Ref. ICAO TI Part 1, Chapter 2)

Dangerous Goods spares and or COMAT will not be loaded or transported onboard our aircraft.

Portable Electronic Devices (PED) such as credit card readers, hand-held video units and similar devices containing batteries (e.g. operator owned or supplied used during flight) and any spare batteries, must be transported in accordance with the ICOA TI.

All COMAT received from Repair Stations and Parts Suppliers shall be scrutinized to determine if the material is classified as Dangerous Goods before introducing it into the transportation system.

#### C. Storage / Disposal of COMAT (Non-Transport)

Within a facility, all Dangerous Goods aircraft components and consumable materials must be readily identifiable. All of these items such as Chemical Oxygen Generators must be moved, stored and handled in accordance with occupational safety and any other regulatory requirements. Disposal of unserviceable aircraft components and consumable materials must be done in accordance with all State environmental requirements.

#### III. PRE-BOARD INSPECTION (ICAO TI, Part 7, Chapter 3)

No employee, agent, or contract employee shall load any cargo or baggage containing indicators of Dangerous Goods aboard an aircraft, onto an aircraft pallet, or into a Unit Load Device (ULD) unless it can be verified that the contents are not Dangerous Goods.

#### IV. PROVISIONS CONCERNING PASSENGERS AND CREW (Ref: ICAO TI Chapter 7-8)

The notices required to be prominently displayed at cargo acceptance areas and passenger processing areas will be done in accordance with ICAO TI, Part 7.

Information on those Dangerous Goods which may be carried by passengers are available on our website at <a href="https://www.xxxx.xxx">www.xxxx.xxx</a>. Certain Dangerous Goods that are normally regulated are excepted from the ICAO TI. All available exceptions are listed in ICAO TI, Part 8, Chapter . We will follow the ICAO TI requirements for the acceptance and transport of these excepted items unless otherwise specified.

Remote passenger check in features for provision of Dangerous Goods information are in place as required by ICAO TI. No person may check in passengers unless adequately trained in our training programme. Passenger check staff will seek confirmation from passengers that they are not carrying Dangerous Goods that are not permitted and will seek further confirmation for about the contents of items where there are suspicions that the item may contain Dangerous Goods.

#### V. PROHIBITED OPERATIONS AS A WILL-NOT CARRY

Due to our WILL-NOT Carry Dangerous Goods policy, exceptions for operator equipment and items of replacement dealing with Dangerous Goods COMAT are forbidden onboard our aircraft. All Dangerous Goods spares and/or COMAT will be properly prepared, documented and offered to another mode of transportation or to an air operator authorized to transport Dangerous Goods.

# **VI.** <u>REPORTING OF DANGEROUS GOODS ACCIDENTS AND INCIDENTS</u> (Ref: ICAO TI, Part 7, Chapter 4)

We will report all Dangerous Goods accidents and incidents to the appropriate authorities as required by our State operating regulations and the ICAO TI.

Additionally, we will report all undeclared and/or misdeclared Dangerous Goods that are discovered in cargo, mail or passenger baggage as required by our State operating regulations and the ICAO TI.

#### **PART TWO**

#### DANGEROUS GOODS TRAINING PROGRAMME

#### I. REQUIREMENTS

No crewmember or person shall perform or directly supervise any Dangerous Goods job function to include acceptance, rejection, handling, storage incidental to transport, packaging of company material (COMAT), or loading of cargo and baggage, unless that person has satisfactorily completed our State-approved initial or recurrent Dangerous Goods Programme within the past 24 months.

A record of the satisfactory completion of the initial and recurrent hazmat training for each individual within the preceding 3 years shall be maintained. These records will be available at the location where the personnel perform such duties, and will be maintained for as long as the employee is performing Dangerous Goods duties, and for 90 days thereafter. Training records for all direct employees, independent contractors, subcontractors, and any other person who performs or directly supervises a Dangerous Goods function must be available upon request. Records may be maintained electronically and provided on location electronically.

The content of the Dangerous Goods Training Records must include:

- 6. The individuals name,
- 7. The most recent training completion date,
- 8. A description, copy or reference to training materials used to meet the training requirement,
- 9. The name and address of the organization providing the training, and
- 5. Evidence which shows that a test has been completed satisfactorily

#### II. TRAINING CURRICULUM & REFERENCE TABLE

All materials and regulations used in our training curriculum must be current and valid at the time of the training.

Our training Programme will satisfy the requirements in the Training Reference Table as outlined in the ICAO TI, Table 1-5. The training required is based on the functions being performed. Each trained person will be able to recognize items that contain or may contain regulated Dangerous Goods. A method to answer all questions prior to testing regardless of the method of instruction will be provided. We will certify that each trainee has been satisfactorily tested and verify understanding of the Dangerous Goods regulations and our policies.

Table 1-5 Content of training courses for operators not carrying dangerous goods as cargo

Contents	7	8	9	10	11
General philosophy	X	X	X	X	X
Limitations	X	X	X	X	X
Labelling and marking	X	X	X	X	X
Dangerous goods transport document and other relevant documentation	X				
Recognition of undeclared dangerous goods	X	X	X	X	X
Provisions for passengers and crew	X	X	X	X	X
Emergency procedures	X	X	X	X	X

#### **KEY**

- 7 Operator's and ground handling agent's staff accepting cargo, mail or stores (other than dangerous goods)
- 8 Operator's and ground handling agent's staff involved in the handling, storage and loading of cargo, mail or stores (other than dangerous goods) and baggage
- 9 Passenger handling staff
- 10 Flight crew members and load planners
- 11 Crew members (other than flight crew members)
- Note 1. Depending on the responsibilities of the person, the aspects of training to be covered may vary from those shown in Tables 1-4 and 1-5. For example, in respect of classification, staff involved in implementing security procedures (e.g. screeners and their supervisors) need only be trained in the general properties of dangerous goods.
- Note 2. The categories of personnel identified in Tables 1-4 and 1-5 are not all encompassing. Personnel employed by or interacting with the aviation industry in areas such as passenger and cargo reservation centres, and engineering and maintenance, except when acting in a capacity identified in Table 1-4 or 1-5, should be provided with dangerous goods training in accordance with 4.2.

#### III. ASPECTS OF DANGEROUS GOODS AIR TRANSPORTATION

At a minimum, our Dangerous Goods training programmes will include the following information for each aspect of Dangerous Goods air transportation.

#### **General Philosophy**

- Dangerous Goods Training Programme ~ State Regulations and ICAO TI, Part 1
- Applicable Regulatory Materials ICAO TI
- Overview of ICAO TI
- Use of ICAO TI
- Definitions Used in Air Transportation of Dangerous Goods ~ ICAO TI, Part 1
- General Transportation Requirements ~ ICAO TI, Part 1
- Transport by Aircraft ~ ICAO TI, Part 7
- Training Requirements and Recordkeeping ~ ICAO TI, Part 1
- Enforcement State Operating Regulations
- Dangerous Goods Security ICAO TI, Part 1

#### **Limitations**

- Dangerous Goods Forbidden on Aircraft Under any Circumstances ICAO TI, Part 1
- Hidden Dangerous Goods ICAO TI, Part 7
- Dangerous Goods Carried by Passenger or Crew ICAO TI, Part 7-8

#### **Labeling and Marking**

- Markings Required on Packages Containing Dangerous Goods ~ ICAO TI, Part 5
- Labels Required on Packages Containing Dangerous Goods ~ ICAO TI, Part 5

#### **Dangerous Goods Transport Document and Other Relevant Documentation**

- Transport Document Requirements ~ ICAO TI, Part 5
- Air waybill requirements ICAO TI, Part 5
- Additional documentation ICAO TI, Part 5
- Retention of transport information ~ ICAO TI, Part 5

#### **Recognition of Undeclared Dangerous Goods**

- Hidden Shipment Indicators ~ ICAO TI, Part 7
- Suspicious Cargo and Baggage Awareness ICAO TI, Part 7
- Reporting of Accidents and Incidents ICAO TI, Part 7

#### **Provisions for Passenger and Crew**

Dangerous Goods Exceptions ~ ICAO TI, Part 8

#### **Emergency Procedures**

• Use of ICAO Red Book or similar reference (Onboard Aircraft)

#### APPENDIX A

#### **HIDDEN SHIPMENT INDICATORS**

Cargo and baggage that are offered under a general description might have hazards that are not apparent. The Dangerous Goods Table in ICAO TI is not complete, and shippers and passengers may not be aware of this. Some of these consignments have caused incidents that could have seriously endangered the safety of the aircraft and/or its passengers.

Please be alert to these possible hazards. Items found containing a Dangerous Good need to be shipped in accordance with the ICAO TI.

NAME	REMARKS
Aircraft Parts/COMAT	May indicate the presence of chemical oxygen generators,
	flammable liquids/solids, corrosives, compressed gases,
	radioactive materials in aircraft parts and accessories, or
	general company materials.
Automobile Parts (car, motor, motorcycle)	May contain cellulose paints, wet batteries, shocks/struts
	with nitrogen, air bag inflators/air bag modules, etc.
Breathing Apparatus/SCUBA	May indicate compressed air or oxygen cylinders
Bull (or other animal) Semen	May involve use of refrigerant (e.g., Liquid Nitrogen)
Camping Equipment	May contain flammable liquids, gas, or solids
Chemicals	Often found to be hazardous
Cryogenic (Liquid)	Indicates low temperature, low pressure, or non-pressurized
	gas such as Argon, Helium, Neon, and Nitrogen
Cylinders	May indicate compressed gas
Dental Apparatus	May contain hazardous chemicals such as resins or solvents
Electrical Equipment	May contain magnetized materials or mercury in switch
	gear and electron tubes
Electrically Powered	May contain wet batteries apparatus (wheelchairs, lawn
	mowers, golf carts, etc.)
Frozen Fruits, Vegetables	May be packed in Dry Ice (Solid Carbon Dioxide)
Household Goods	May contain Dangerous Goods such as paint, aerosols,
	bleaching powder, etc.
Instruments	May conceal barometers, manometers, mercury switches,
	rectifier tubes, thermometers containing mercury
Laboratory/Testing	May contain various hazardous chemicals
Machinery Parts	May include hazardous chemicals (adhesives, paints,
	sealants, solvents, etc.)
Medical Supplies/Equipment (Test Kits)	May contain various hazardous chemicals
Pharmaceuticals	May contain various hazardous chemicals
Photo Supplies	May contain various hazardous chemicals
Refrigerators	May contain various hazardous chemicals
Repair Kits	May contain various Dangerous Goods (adhesives,
	solvents, cellulose paints, organic peroxides, etc.)
Samples for Testing	May contain various Dangerous Goods (including
	infectious substances)
Swimming Pool Supplies	May contain acid, chlorine

Switches in Electrical Equipment or	May contain mercury
Instrument	
Tear Gas Dispensers	Contains irritating material or pepper gas which is
	forbidden on passenger aircraft
Toys	May be made of celluloid or other flammable material
Tool Boxes	May contain Flammable gases, liquids, adhesives,
	Cleaners, Corrosives, Oxidizers, etc.
Vaccines	May be packed in Dry Ice (Solid Carbon Dioxide)

**Note 1:** Articles which do not fall within the Dangerous Goods definitions of ICAO TI and which, in the event of leakage, may cause serious cleanup problems or corrosion to aluminum on a long term basis, must be checked by the shipper to at least ensure that the packaging is adequate to prevent leakage during transportation. These may include brine, powered or liquid dyes, pickled foodstuffs, etc.

**Note 2:** Magnetized material, as defined in ICAO TI, with a gauss reading between 0.002 gauss and 0.00525 gauss, requires a magnetized material label.

### APPENDIX B

# <u>Dangerous Goods Marking & Labeling Guide</u> SEE ATTACHED

#### APPENDIX C

#### **Dangerous Goods Onboard Aircraft**

Delete this box and utilize this space to add a picture(s) of representative aircraft for your fleet and annotate where the various items listed below are located on the aircraft.

Spaces 18-20 in the list below can be utilized for additional items applicable to your aircraft that are not already listed.

1. Batteries, Aircraft	11. Oxygen Bottles, Crew System, Gaseous
2. Engine Oil (as hazardous waste)	12. Oxygen Bottles, Passenger System, Gaseous (Standard)
3. Escape Slides/Life Rafts	,
<b>4. Fire Bottles</b> (APU, engines, lower cargo compartment, and lavatory waste containers)	<b>13. Oxygen Generators</b> (optional: each PSU standard: each attendant station and lavatory)
•	14. Rain Repellant
<b>5. Fire Extinguishers</b> (attendant stations, closets, galleys, etc.)	15. Refrigerant (located in each galley)
6. Fuel	16. Smoke Hoods
<ul><li>6. Fuel</li><li>7. Hydraulic Fluid, Reservoirs (as hazardous waste)</li></ul>	<ul><li>16. Smoke Hoods</li><li>17. Tritium Radioactive Signs (aisle and emergency exit doors)</li></ul>
7. Hydraulic Fluid, Reservoirs (as hazardous	17. Tritium Radioactive Signs (aisle and
<ul><li>7. Hydraulic Fluid, Reservoirs (as hazardous waste)</li><li>8. Uranium (depleted, counter-balance</li></ul>	17. Tritium Radioactive Signs (aisle and emergency exit doors)

APPENDIX D

	<b>Dangerous</b>	Goods	Accident /	Incident	Report:
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#### **APPENDIX E**

#### **OPERATIONS SPECIFICATIONS**

#### OPSPEC #xxxx - TRANSPORT OF DANGEROUS GOODS

- **A. Authorization.** Operations specification (OpSpec) XXXX is an optional authorization applicable to operators conducting operations under State operating regulations that choose to comply with the applicable regulations to carry Dangerous Goods.
- **B. Regulatory Requirements.** State operating regulations require the following:
  - 1) All Operators conducting operations under State operating regulations, must indicate in their operations specification that they "will-carry" or "will-not-carry" Dangerous Goods. OpSpec XXXX is issued for those that "will-carry" Dangerous Goods. OpSpec XXXX must contain a statement that the operator "will-not-carry" Dangerous Goods.
  - 2) Operators must comply with the manual requirements outlined in State operating regulations and with the Dangerous Goods training programme requirements in the ICAO TI.

#### C. Operators That Choose to Carry Dangerous Goods (Will-Carry).

- An operator conducting operations under State operating regulations that chooses to carry Dangerous Goods (including spares and/or company materials (COMAT) classified as Dangerous Goods) must provide to its principal operations inspector (POI) a general outline of the aspects of the proposed training programme as presented in Table 1-4 of the ICAO TI. Operations manuals with the procedures and information to be used to assist personnel in the acceptance, handling, loading and transport of Dangerous Goods must also be submitted. The POI will forward this material to the appropriate State Dangerous Goods office for review and approval.
- 2) Provided the following conditions are met, the operator may be authorized to accept, handle, and transport Dangerous Goods.
  - a) Packages containing Dangerous Goods are properly offered and accepted in compliance with ICAO TI, Part 7, Chapter 1;
  - b) Packages containing Dangerous Goods are properly handled, stored, packaged, loaded, and carried onboard the operator's aircraft in compliance with ICAO TI, Part 7, Chapter 2;
  - c) The requirements for the notification to the PIC are as required in ICAO TI, Part 7, Chapter 4; and
  - d) Aircraft replacement parts, spares, consumable materials or other items regulated by ICAO TI are properly handled, packaged, and transported.

- Additionally, for each crewmember and person performing or directly supervising Dangerous Goods function involving items for transport on an aircraft, the operator's manual required by State operating regulations shall contain those procedures and information necessary to assist the crewmember or other person in identifying packages marked or labeled as containing Dangerous Goods or show signs of containing undeclared Dangerous Goods.
- 4) The manual required by State operating regulations, shall contain the operator's procedures for rejecting packages that do not conform to the Dangerous Goods Regulations in the ICAO TI, or that appear to contain undeclared Dangerous Goods.
- 5) The manual required by State operating regulations, shall contain the operator's procedures for complying with the Dangerous Goods accident and incident reporting requirements ICAO TI and the reporting of undeclared and misdeclared Dangerous Goods.
- The operator is responsible for maintaining the records in initial and recurrent Dangerous Goods training within the three preceding years of all direct employees, contractors, and subcontractors directly supervising or performing an applicable Dangerous Goods function as described in ICAO TI. The training records may be electronic or paper and must be made available to the State upon request at the location the trained person performs or directly supervises the covered Dangerous Goods function.
- 7) Dangerous Goods training records must contain the following:
  - Individual's name.
  - Most recent training completion date.
  - A description, copy, or reference to training material.
  - Name and address of organization providing training.
  - Evidence that a test was satisfactorily completed.

#### E. Operators that Choose Not to Carry Dangerous Goods (Will-Not-Carry).

- OpSpec XXXX will state that the operator conducting operations under State operating regulations is not authorized and shall not carry Dangerous Goods, satisfying the OpSpec regulatory requirement for a "will-not-carry" operator. The operator is prohibited from accepting, handling, or transporting Dangerous Goods to include spares and/or COMAT. Will Not Carry operators must provide to its POI a general outline of the aspects of the proposed training programme as presented in Table 1-5 of the ICAO TI.
- 2) Consistent with this prohibition, for each crewmember and person performing or directly supervising the acceptance, handling, or loading of items for transport on an aircraft, the operator's manual required by State operating regulations shall contain those procedures and information necessary to assist the crewmember or other person in identifying packages that are marked or labeled as containing Dangerous Goods or that show signs of containing undeclared Dangerous Goods.

- 3) Dangerous Goods training records must contain the following:
  - Individual's name.
  - Most recent training completion date.
  - A description, copy, or reference to training material.
  - Name and address of organization providing training.
  - Evidence that a test was satisfactorily completed.
- 4) The manual required by State operating regulations, shall contain the operator's procedures for rejecting packages offered for transport that contain Dangerous Goods or that appear to contain undeclared Dangerous Goods.

#### F. Issuing Operations Specifications

1) Upon approval of operations manuals and training program, the POI will issue the appropriate operations specifications to carry Dangerous Goods (Will Carry) or to prohibit carriage of Dangerous Goods (Will Not Carry) in accordance with State operating regulations.