SOUTH AFRICAN CIVIL AVIATION AUTHORITY

TECHNICAL GUIDANCE MATERIAL for RPAS Operations – Dangerous Goods

SUBJECT: TECHNICAL GUIDANCE MATERIAL FOR REMOTELY PILOTED AIRCRAFT OPERATIONS DANGEROUS GOODS

EFFECTIVE DATE: 24 June 2021

1. APPLICABILITY

This process is applicable to RPAS pilots, RPA ATO's, RPAS operations and is to be used in combination with the applicable checklists, Part 101, 141, 92 of the CARS 2011, as amended, the SA CATS and the ICAO Technical Instructions for the safe transport of Dangerous Goods by air.
Including but not limited to:

1.1 RPAS Training Schools

1.2 RPAS used to carry

- 1.2.1 Dangerous Goods as payload (Including but not limited to, medical supplies / Infectious & biological Substances/ Blood Samples etc.)
- 1.2.2 General cargo including mail

2. PURPOSE

The purpose of this user guide is to give guidance to RPA pilots, RPA training schools and RPA operations about Dangerous Goods. Nothing in this guidance material prohibits the user from adding any information in their manuals which they may deem pertinent for safe handling of Dangerous Goods

3. REQUIREMENTS

3.1 Dangerous Goods

- 3.1.1 Ensure the Facility has an area designated for safe storage of DG including Lithium Batteries
- 3.1.2 DG segregation table (to ensure proper segregation of DG)
- 3.1.3 Develop DG procedures incorporated in the operations manual
- 3.1.4 Develop training program for crew and all personnel involved in handling DG and/or cargo
- 3.1.5 Ensure that the following is available in the facility:
  - i. Spill Kit / Fire extinguisher & First Aid Kit
  - ii. Emergency response plan
  - iii. Evacuation plan available and visible

4. REFERENCE:

i. Civil Aviation Regulations
ii. Civil Aviation Technical Standards
iii. Part 12, 13, 92, 101, 141
iv. ICAO Technical Instructions for the Safe Transportation of Dangerous Goods by Air
v. Annex 18
vi. Annex 19

5. TERMS AND ABBREVIATIONS:

5.1 Terms

TERM	DEFINITION
Accountable Manager	Means a single, identifiable person within an entity who has full responsibility for the organisation's on-going compliance with the CAR and have full authority for human resources issues, authority for major financial issues, direct responsibility for the conduct of the organisation's affairs, final authority over operations under certificate and final responsibility for all safety and security issues
Beyond Visual Line-of-Sight	An operation in which the remote pilot cannot maintain direct unaided visual contact with the remotely piloted aircraft to manage its flight and to meet separation and collision avoidance responsibilities visually
Cargo	Any property / goods carried on an aircraft or RPA as payload other than mail
Dangerous Goods	Are articles or substances which are capable of posing a hazard to health, safety, property or the environment and which are shown in the list of dangerous goods in the Regulations or which are classified according to these Regulations
Extended Visual Line-of-Sight	An operation below 400 feet above ground level in which an observer, maintains direct and unaided visual contact with the remotely piloted aircraft at a distance not exceeding 1 000 metres from the pilot
Operating Certificate	Operating certificate issued by the DCA authorising an operator of a commercial air transport aircraft to carry out specified air transport operations;
Operations Specifications	Authorisations, conditions and limitations associated with the air operator certificate and subject to the conditions in the operations manual
Operator	a person, organization or enterprise engaged in, or offering to engage in the RPA operation
Pilot In Command	The PIC has the final authority and responsibility for the operation and safety of the flight, has been designated as pilot in command before or during the flight; and holds the appropriate category, class, and type rating, if appropriate, for the conduct of the flight

TERM	DEFINITION
Quality Manager	Quality Manager" means the manager responsible for the monitoring function and for requesting remedial action and is responsible directly to the accountable manager
Quality System	Quality System means documented organisational procedures and policies; internal audit of these policies and procedures; management review; and recommendation for quality improvement;
Remotely Piloted Aircraft	An unmanned aircraft which is piloted from a remote pilot station, excluding model aircraft and toy aircraft
Restricted Visual Line-of-Sight	An operation within 500 metres of the remote pilot and below the height of the highest obstacle within 300 metres of the RPA, in which the remote pilot maintains direct unaided visual contact with the RPA to manage its flight and meet separation and collision avoidance responsibilities
Safety Management System	A systematic approach to managing safety, including the necessary organisational structures, accountabilities, policies and procedures
Visual Line-of-Sight	An operation below 400 feet above ground level in which the remote pilot, maintains direct and unaided visual contact with the RPA at a distance not exceeding 500 metres;

5.2 Abbreviations

ABBREVIATION	DESCRIPTION
ATO	Aviation Training Organisation
DG	Dangerous Goods
IAEA	International Atomic Energy Agency
IATA	International Air Transport Association
ICAO	International Civil Aviation Organisation
Ops Spec	Operations Specification
PIC	Pilot in Command
ROM	RPAS Operations Manual
SMS	Safety Managements Systems
TGM	Technical Guidance Material
UN	United Nations

6. GENERAL

6.1 The formulation and implementation of the overall DG procedures including amendments.

6.2 The development and promulgation of companywide DG safety standards and practices to ensure that line management has the necessary direction and control

6.3 Conduct DG internal quality audits.

6.4 Report all DG incidents and accidents

6.5 Maintain incidents and accidents records.

6.6 Establishing and maintaining effective liaison with the SACAA, other government and law enforcement agencies.

6.7 Ensuring that effective risk analysis, threat assessment is conducted regularly and that there is enough response capability as part of SMS.
6.8 The understanding of legislation and regulations relating to DG.
6.9 Ensuring training and recurrent training are conducted timeously by an accredited ATO and are trained and proper control of training records are established and maintained.
6.10 Ensuring any DG safety related information is provided to all staff

7. GENERAL EXCEPTIONS

7.1 As mentioned in the ICAO Technical Instructions, these Instructions do not apply to dangerous goods carried by an aircraft where the dangerous goods are:
7.2 to provide, during flight, medical aid to a patient or to preserve tissues or organs intended for use in transplantation when those dangerous goods:

7.2.1 Have been placed on board with the approval of the operator; or
7.2.2 Form part of the permanent equipment of the aircraft when it has been adapted for specialized use; providing that:

a. Gas cylinders have been manufactured specifically for the purpose of containing and transporting that particular gas;
b. Equipment containing wet cell batteries is kept and, when necessary, secured in an upright position to prevent spillage of the electrolyte;
c. Lithium metal or lithium ion cells or batteries meet the provisions of the ICAO technical instructions 2;9.3 and spare lithium batteries are individually protected to prevent short circuits when not in use;

7.2.3 To provide, during flight, veterinary aid or a humane killer for an animal;
7.2.4 For dropping in connection with agricultural, horticultural, forestry, ice jam control, landslide clearance, pollution control activities or pest management activities;
7.2.5 For dropping or triggering in connection with avalanche control activities;
7.2.6 To provide, during flight, or related to the flight, aid in connection with search and rescue operations;

7.3 Provision must be made to stow, and secure dangerous goods transported during take-off and landing at all times when deemed necessary by the pilot
7.4 The dangerous goods must be under the control of trained personnel during the time when they are in use on the aircraft.
7.5 Dangerous goods transported under 6.1. a), b), c), d) and e) may be carried on a flight made by the same aircraft before or after a flight for the purposes identified above, when it is impracticable to load or unload the dangerous goods immediately before or after the flight, subject to the following conditions:

7.5.1 The dangerous goods must be capable of withstanding the normal conditions of air transport;
7.5.2 The dangerous goods must be appropriately identified (e.g. By marking or labelling);
7.5.3 The dangerous goods may only be carried with the approval of the operator;
7.5.4 The dangerous goods must be inspected for damage or leakage prior to loading;
7.5.5 Loading must be supervised by the operator;
7.5.6 The dangerous goods must be stowed and secured in the aircraft in a manner that will prevent any movement in flight which would change their orientation;
7.5.7 All personnel must be trained commensurate with the functions for which they are responsible;

8. THE RESPONSIBILITIES OF THE OPERATOR:

8.1 Comply fully with the ICAO Technical Instructions for the safe transport of DG and any applicable civil aviation regulations and Technical standards.
8.2 Must ensure that all persons involved are aware that offering articles or substances in violation of the regulations, is a breach of national law and may be subject to legal penalties
8.3 Must provide information to the employees as this will enable them to carry out their responsibilities regarding DG
8.4 Must ensure that DG / Lithium Batteries/ Infectious Substances are packed in compliance with all applicable air transport requirements in line with packing instructions
8.5 Must ensure they obtain the relevant permits and licenses from appropriate authorities, Governmental Departments, Legal authorities/representative.

9. ROC POLICY STATEMENT

9.1 The operator should establish a policy for the safe transport of DG on a RPAS for example:

9.1.1 [ROC Name] holds an SACAA approval for the transport of DG by air via remotely piloted aircrafts.]
9.1.2 It is not the policy of {ROC Name} to transport DG by remotely piloted aircrafts

10. SAFETY RISK ASSESSMENT

10.1 The operator should include the practice of conducting a safety risk assessment.
10.2 The safety risk assessment should include at least the:

10.2.1 Identification of hazards associated with the DG;
10.2.2 Type of operation;
10.2.3 Containment characteristics of the RPA
10.2.4 Packing and packaging;
10.2.5 Quantity and type of DG to be transported; and
10.2.6 Level of competence of those handling the DG.
10.2.7 Action to be taken in the event of emergencies involving DG; and
10.2.8 Instructions for the collection of safety data related to DG accidents and DG incidents.

11. DESIGNATED PERSON: DANGEROUS GOODS

11.1 Operators approved to carry DG shall designate a person who will be responsible for all DG matters in the organization.
11.2 The responsible person must be designated in writing.
11.3 The responsible person must be current in DG Cat 6 training

12. UNAUTHORISED ACCESS

12.1 Where an unauthorised person is found having access to secure RPA environment and where DG including Lithium batteries and Infectious substances areas, those goods will be inspected for any pilferage, leakage and or damage.
12.2 In any such event of unauthorized access, appropriate steps shall be taken without delay to prevent further breaches to the security system.
12.3 Where an unauthorised person is detected in the controlled area the following actions shall be taken:

12.3.1 The person should be challenged. If it is regarded as not safe, the assistance of the security department and or police must be sought.
12.3.2 The identity of the person should be established.
12.3.3 The area shall be regarded as contaminated/unsecured.
12.3.4 The area shall be subjected to security controls (which may include a thorough search/inspection) as to confirm that DG is secure.

12.4 The SACAA shall be notified of the incident within 48 hours

13. PREMISES, STAFF AND ACCESS CONTROL AND CONTROL OF PERMITS

13.1 Adequate physical barriers, such as fences, security gates and doors shall be installed. Physical barriers shall be of such nature that unauthorised access will be detected and prevented. This will include the following:

13.1.1 Access to DG areas shall be restricted to authorized persons with an operational need.
13.1.2 Access control shall be exercised at specific access control points, there being no other means of access into the premises other than through that point or points.
13.1.3 Each access control point shall be staffed, effectively monitored or secured.
13.1.4 Staff authorized to have unescorted access to controlled areas shall be issued with passes/permits.
13.1.5 Visitors shall always be escorted if required to enter controlled areas within the facility (include storage of RPA, Infectious substances / Biological Substances / Lithium Batteries)

14. OPERATIONS PROCEDURES

14.1 The RPA operator / ROC Holder will apply systems and methods to ensure that DG / infectious /biological substances/ Lithium Batteries in their care are properly identified, classified, packed, accepted, labeled, handled, documented and stored

14.1.1 Classification

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

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

Packing Group, I	High Danger
Packing Group II	Medium Danger
Packing Group III	Low Danger

Note: It is the Shipper's responsibility to identify and classify all DG intended for transport by air in compliance with regulations

14.1.2 Packing

It is the responsibility of the Shipper to ensure that the DG where applicable are packed correctly as follows:

Single Packaging	Packaging which do not require any inner packaging to perform their containment function during transportation
Inner Packaging	Packaging for which an outer packaging is required for transport
Outer Packaging	The outer protection of a composite or combination packaging together with components necessary to contain and protect inner receptacles or inner packaging
Combination Packaging	A combination of packaging for transport purposes, consisting of one or more inner packaging secured in an outer packaging
All Packed in One	Different classes of COMPATIBLE DG which are packed into one outer packaging
Over pack	An enclosure used by a single shipper to contain one or more packages of compatible DG and to form one handling unit for convenience of handling and storage

14.1.3 Labelling/Identification/Marking

The Shipper is responsible for all necessary markings and labelling of DG in compliance with the Regulations.

Proper Shipping Name – DG are assigned to UN Numbers and proper shipping names according to their hazard classification and their composition.

All labels must meet the quality and specification requirements of the Regulations and must be affixed in the correct location and in a secure manner. All markings must be visible, legible, and so placed that they are not covered or obscured in any way

14.1.4 Documentation

a. Shippers Declaration of DG
b. DG Checklist
c. Safety Data Sheet
d. Movement control sheet in the event of transporting DG via RPA
    i. Date
    ii. Times
    iii. Place
    iv. Type of DG

14.1.5 DG Prohibited

a. Class 1

14.1.6 Ammunition

RPA Operations shall not handle Arms and Ammunition.

Any Arms and Ammunition detected shall be stopped and the police authorities shall be notified. The incident shall be reported to the Civil Aviation Authority and followed up with a written report within 48 hours.

14.1.7 Storage

a. RPA operators / ROC Holders will have designated areas for DG which will have the following:

i. Fire extinguishers, First aid kit
ii. Emergency Response plan,
iii. Display of DG signage with classes
iv. DG segregation table (to ensure proper segregation of DG)

b. The operator shall ensure that the DG designate area is free from clutter and is always ready to be used for its purpose.

14.1.8 Transportation and Loading

a. DG being transported must be secured to the RPA.
b. DG must be packed in accordance to ICAO TI
c. DG (compatibility)
d. Ensuring the RPA weight carrying capacity is not exceeded
e. Ensuring staff involved in loading and transportation have the necessary DG training.

14.1.9 Inspection for Damage and Leakage

14.1.9.1 RPA operators / ROC Holders before accepting DG will inspect them for damage and or leakage
14.1.9.2 If the package is damaged and or is leaking –the Shipper must be notified immediately to come and collect the package for proper packaging.
14.1.9.3 Should a package be damaged and or leaking whilst in the care of the RPA operators / ROC Holder, the following needs to be done:

a. Avoid handling the package
b. Inspect adjacent packages for contamination and put aside any that have been contaminated
c. Do not clean the area
d. Report to the appropriate authority within 48 hours.
e. If personnel were in contact with the contents of the package, the following must be done:

i. Think safety first
ii. Avoid contact with dangerous substances
iii. Do not walk through spilled liquids or dust (solids)
iv. Keep away from vapours or gases
v. Cordon off the affected area
vi. Sound Alarm

15. REPORTING (CAR PART 92, 92.00.22)

15.1 Dangerous Goods Accident and Incident Reporting

15.1.1 Definitions: DG accident: An occurrence associated with and related to the transport of DG by air which results in fatal or serious injury to a person or major property or environmental damage.

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

Note: a DG accident or incident may also constitute an aircraft accident or incident as specified in ICAO Annex 13 — Aircraft Accident and Incident Investigation.

15.1.3 DG Accident and incident reporting both declared and undeclared

15.1.4 The operator of an aircraft, involved in a DG accident or DG incident within the Republic, shall within 48 hours after such accident or incident has occurred, notify

a. in the case of an accident, the DCA, any ATSU or the nearest police station; or
b. in the case of an incident, any ATSU, of such accident or incident, and such ATSU or police station, as the case may be, shall immediately on receipt of the notification, notify –

i. the DCA; and
ii. where such accident or incident occurs at an aerodrome, the aerodrome.

15.1.4.1 The operator of a South African aircraft involved in a DG accident or DG incident outside the Republic, must, as soon as practicable, notify

i. he appropriate authority of the State in territory where the accident or incident has occurred, directly or through any ATSU; and
ii. the DCA, of such accident or incident.

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

15.1.4.2 An operator must report any occasion when DG that are not permitted are discovered by the operator (or the operator is advised by the entity that discovers the DG) either in the baggage or on the person of passengers (after check-in) or crew members.

15.1.4.3 Such a report must be made to the appropriate authority of the State in which this occurred. In addition to the requirements of the ICAO Technical Instructions for the reporting of DG occurrences (above), the SACAA requires that any incident which endangers or which, if not corrected, would endanger an aircraft, its occupants or any other person is reported to the DG Responsible person designated as per requirements of (CAR 92.00.30. (1)) such DG occurrences must be reported through the safety management system reporting of the operator:

a. DG found not to have been secured to prevent movement
b. Damage to packages of DG

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

a. Date of the incident or accident or the finding of undeclared or mis declared DG.
b. Location, the flight number and flight date.
c. Description of the goods and the reference number of the air waybill, pouch, etc.
d. Proper shipping name (including the technical name, if appropriate) and UN/ID number, when known.
e. Class or division and any subsidiary risk.
f. Type of packaging, and the packaging specification marking on it.
g. Quantity of DG.
h. Name and address of the shipper, passenger, etc.
i. Any other relevant details.
j. Suspected cause of the incident or accident.

i. Action taken.
ii. Any other reporting action taken.
iii. Name, title, address and telephone number of the person making the report. Copies of relevant documents and any photographs taken should be attached to a report.

Note 1 if safe to do so, the DG involved in the accident or incident should be held pending SACAA investigation.

Note 2 Operators should describe their procedures for reporting DG incidents, accidents and undeclared DG to the SACAA. Where applicable, this information should be provided to handling agents so that, as a minimum, they are advised to whom events should be submitted (CAR 92.00.30(1)) places a direct legal duty upon a person who performs a function in respect of the ground handling of aircraft to report to the SACAA any incident which endangers or which, if not corrected, would endanger an aircraft, its occupants or any other person)

16. DANGEROUS GOODS AUDIT TRAIL

16.1 Records shall be maintained either manually or in electronic format showing at least the following detail:

16.1.1 Shippers Declaration for DG
16.1.2 Airwaybill
16.1.3 Consignee and Consignor details
16.1.4 Description of the goods
16.1.5 Security controls
16.1.6 Whether the consignment was accepted or declined
16.1.7 Safety risk assessment
16.1.8 Quality audits and inspections

17. TRAINING

17.1 DG Training programme must be reviewed and approved by the appropriate authority of the state of the operator. Initial and recurrent training programmes must be established and maintained by or on behalf of the operations.

17.2 A training program must include elements such as methodology, assessment, initial and recurrent training, instructor qualifications and competencies, training records and evaluation of the effectiveness of training

17.3 This training shall be conducted by SACAA approved and accredited training organisations

17.4 Personnel must be trained and assessed commensurate with the functions for which they are responsible prior to performing any of these function

Table 1-4. Content of training courses

Aspects of transport of dangerous goods by air with which they should be familiar, as a minimum	*Shippers and packers*		*Freight forwarders*			*Operators and ground handling agents*						Security staff
	Categories of staff											
	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						

17.5 ns.

All pilots involved in RPAS operations shall complete and hold the competency for CAT 10 DG Training.

Aspects of transport of dangerous goods by air with which they should be familiar, as a minimum	*Categories of staff*											
	1	2	3	4	5	6	7	8	9	10	11	12
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

CATEGORIES

1 — Shippers and persons undertaking the responsibilities of shippers
2 — Packers
3 — Staff of freight forwarders involved in processing dangerous goods
4 — Staff of freight forwarders involved in processing cargo or mail (other than dangerous goods)
5 — Staff of freight forwarders involved in the handling, storage and loading of cargo or mail
6 — Operator's and ground handling agent's staff accepting dangerous goods
7 — Operator's and ground handling agent's staff accepting cargo or mail (other than dangerous goods)
8 — Operator's and ground handling agent's staff involved in the handling, storage and loading of cargo or mail and baggage
9 — Passenger handling staff
10 — Flight crew members, loadmasters, load planners and flight operations officers/flight dispatchers
11 — Crew members (other than flight crew members)
12 — Security staff who are involved with the screening of passengers and crew and their baggage and cargo or mail, e.g. security screeners, their supervisors and staff involved in implementing security procedures

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

Contents	*Categories of staff*				
	13	14	15	16	17
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

CATEGORIES

13 — Operator's and ground handling agent's staff accepting cargo or mail (other than dangerous goods)
14 — Operator's and ground handling agent's staff involved in the handling, storage and loading of cargo or mail (other than dangerous goods) and baggage
15 — Passenger handling staff
16 — Flight crew members, loadmasters, load planners and flight operations officers/flight dispatchers
17 — 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.

18. TRAINING PROGRAMME

18.1 General Requirements Applicable to Dangerous Goods Training Program for RPAS Operations.

18.1.1 To ensure that everyone involved is aware of their responsibilities in the transport of DG, no matter whether such goods are carried as cargo, training must be given so that awareness is gained of the hazards associated with DG and how they should be dealt with in air transport. Personnel identified in the categories specified in Table 1-4 / 1-5 of the ICAO Technical Instructions (extract produced below) must be trained or training must be verified prior to the person performing any duty specified in Table 1-4 / 1-5.

18.1.2 Recurrent/refresher training must be provided within 24 months of previous training, to ensure knowledge is current. However, if recurrent training is completed within the final 3 months of validity of previous training, the period of validity extends from the month on which the recurrent training was completed until 24 months from the expiry month of that previous training.

18.1.3 As with other aviation qualifications an offence against the regulations will be committed if staff continue to work after their training qualification has expired.

18.1.4 A test to verify understanding must be undertaken following training and confirmation that the test has been completed satisfactorily is required. The records of training must be retained by the employer for a minimum period of 5 years as prescribed under SACAR Part 141 and must be made available upon request to the employee or the appropriate national authority.

18.2 Dangerous Goods Training Syllabus

18.2.1 The areas to be covered for various categories of personnel are listed within the table below; the depth of training required for each area is dependent on the responsibilities of the individuals and varies from a general appreciation to in-depth knowledge so that decisions can be taken.

18.2.2 Editorial Note: In addition to DG cat 10 training, RPAS pilots and observers Must include additional DG training that is commensurate with the nature of the operations (e.g. Lithium battery Course, Infectious / Biological substance training Div. 6.2).

18.3 Instructor Qualifications

18.3.1 Instructors of initial and recurrent DG training programmes must have adequate instructional skills and have successfully completed a DG training programme in the applicable Category 6, prior to delivering such a DG training programme.

18.3.2 Instructors delivering initial and recurrent DG training programmes must successfully complete a category 6 refresher course within 24 months calculated from the date of completion of the initial course with an approved SACAA approved Aviation Training Organisation.

18.4 Issuance of certificate (CAR 92.00.8 (5))

Upon successful completion of the initial DG training or the refresher
DG training, the DG training organisation concerned shall issue to the candidate a certificate in the handling of DG to be conveyed by air.

18.5 Competency Cards (CAR 92.00.31)

All personnel who have received training and are current in DG training shall be issued with a competency card and shall carry the card with them at all times while on duty.

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