
CHAPTER 21

CARRIAGE OF DANGEROUS GOODS

1.0 PURPOSE

- 1.1** This Chapter provides information, direction and guidance used by Dangerous Goods Inspectors concerning oversight of Dangerous Goods, the review, acceptance and approval of all Dangerous Goods Manuals, including the Approval of Dangerous Goods Training.
- 1.2** The Terms – Dangerous Goods and Hazards Materials (HAZMAT) are synonymous. All Operators are required as a minimum to provide training on the identification of Dangerous Goods to their personnel.
- 1.3** Those Operators who transport Dangerous Goods must include procedures for handling these materials in their Operations Manual (OM). These Operators must also train their personnel to be able to implement these procedures.

Notes: Operators that choose not to carry Dangerous Goods must have a Dangerous Goods Recognition or Awareness Program that should be submitted to the Authority for review and approval.

2.0 REFERENCES

- a) Nig. CARs 8.5.1.27, 8.10.1.10 and 9.6
- b) Nig. CARs Part 15
- c) NCAA Dangerous Goods Inspector's Handbook
- d) Checklists: CL: O-OPS002A, CL: O-OPS002B CL: O-OPS023, CL: O-OPS023A, CL: O-OPS023B, CL: O-OPS023C, CL: O-OPS 041 and CL: O-OPS 041A
- e) ICAO Doc 9284 - Technical Instructions on Safe Transportation of Dangerous Goods by Air (TI)
- f) ICAO Doc 10147 - Guidance on a Competency-based Approach to Dangerous Goods Training and Assessment

3.0 RESPONSIBILITY FOR ACCEPTANCE/APPROVAL, SURVEILLANCE AND ENFORCEMENT OF DANGEROUS GOODS PROGRAMMES

- 3.1** The Authority's DG Inspectorate has oversight responsibility for an Air Operator's Dangerous Goods Programmes. Dangerous Goods Inspectors (DGIs) specifically trained for Dangerous Goods are responsible for Dangerous Goods oversight activities and must evaluate all Dangerous Goods programmes. An Operator's Dangerous Goods Programme is contained in her Dangerous Goods Manual and includes Dangerous Goods Training. The Operators shall use the Current International Civil Aviation Organization (ICAO) Technical Instructions when developing their Dangerous Goods Programmes.

The General Manager, Dangerous Goods (GM DG) in the Directorate of Operations, Licensing and Training Standards (DOLTS) shall be the Dangerous Goods Coordinator (DGC) responsible

for the implementation of the Dangerous Goods oversight programme on behalf of the Authority.

4.0 PROCEDURES FOR APPROVAL OF DANGEROUS GOODS TRAINING PROGRAMMES:

- 4.1 When the Dangerous Goods Coordinator (DGC) receives a proposed or updated Dangerous Goods Training Programme from an Operator, he shall forward it to any of the Dangerous Goods Inspectors (DGIs). The DGI will then evaluate the contents of the training and consult with other DGIs when necessary.
- 4.2 Once the DGI is satisfied with the training programme, he then recommends approval of the training programme as required by Regulation.
- 4.3 Training Programmes of Parts 15.6, 9.6.1.14 and Part 8.10.1.10 of the Nigeria Civil Aviation Regulations on Dangerous Goods Initial and recurrent Training, describe Dangerous Goods Training to be established and maintained in the Air Operator's Dangerous Goods Manual. The Initial Approval of the training is usually done at the same time as the Review and Acceptance of the Dangerous Goods Manual.

5.0 PROCEDURES FOR APPROVAL OF DANGEROUS GOODS MANUALS

- 5.1 When a DGC receives a Dangerous Goods Manual for review from an Air Operator, he should forward it to a DGI. The DGI will review the contents of the manual and consult with other FOIs when necessary. Once the DGI is satisfied with the manual, he shall recommend to the Director, through the DGC, or in his absence, the Deputy DGC in writing for acceptance/approval.

6.0 DANGEROUS GOODS INFORMATION REQUIREMENT FOR OPERATORS NOT ACCEPTING DANGEROUS GOODS:

- 6.1 Operators who do not accept or handle, or store Dangerous Goods must provide Procedures and Instructions in the Operator's Manual as follows:
 - 6.1.1 Procedures and Instructions so that all personnel responsible for accepting and handling any Cargo or Packaged Materials receive 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).
 - 6.1.2 Procedures and Instructions so that no Package are accepted by the operator that contain Dangerous Goods.
 - 6.1.3 Procedures and Instructions for reporting that damaged packages found to contain, or that are suspected of containing Dangerous Goods are reported in compliance with the ICAO Technical Instructions and the Nig. CARs 2015, regulation 15.26.



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- 6.14 Procedures and Instructions to see that all Company Material (COMAT) containing Dangerous Goods will be offered to a different mode of transportation (e.g. ground) and/or in Air Operator that is authorized to transport Dangerous Goods.
- 6.15 Procedures and Instructions to see that any employee, agent, or contract employee of the Air Operator who prepares and/or offers COMAT containing Dangerous Goods for shipment via any mode is fully trained as a Dangerous Goods shipper.

7.0 DANGEROUS GOODS INFORMATION REQUIREMENT FOR OPERATORS ACCEPTING DANGEROUS GOODS

- 7.1 Operators who transport Dangerous Goods must provide Instruction and Procedures on the basic subjects in Section 8.0 below. The following information is provided as background material for the DG Inspector and is not intended to supplant nor provide guidance for an Operator's Dangerous Goods Programmes. Inspectors may share this information when requested but must see that the operator understands that DGI is the Authority that operator must work with when developing, implementing or changing a Dangerous Goods Programme.

8.0 PROCEDURES AND INSTRUCTIONS ON ACCEPTANCE OF DANGEROUS GOODS FOR AIR SHIPMENT

- 8.1 The Operator's Instructions should contain the following information:
- 8.1.1 **Packaging:** Nig. CARs 9.6.1.6 or 15.11 requires an operator to take all reasonable measures to ensure that Dangerous Goods are packaged as specified in the ICAO Technical Instructions. 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, Authority exemptions or competent Authority Certificates as determined by the Inspection requirements for accepting shipments in the ICAO Technical Instructions.
- 8.1.2 **Damage-Free:** The package shall not leak or be damaged and must be an authorized package in accordance with the applicable regulations.
- 8.1.3 **Authorization of Carriage:** 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.
- 8.1.4 **Identification:** The material must be identified by proper shipping name, hazard class or division, identification number and packaging group, when required, in accordance with ICAO Technical Instructions.

8.1.5 **Marking and Labeling:** The package must be properly marked and labeled in accordance with the ICAO Technical Instructions and Nig. CARs 15.13.

8.1.6 **Shipping Papers:** Shipping Papers must be reviewed to ensure that all necessary information is entered including any information that may be required because of the commodity shipped or because the method of transportation is related to Air Transportation.

8.2 Storage of Dangerous Goods

Operators should provide specific guidance on the storage of Dangerous Goods in accordance with the ICAO Technical Instructions. This guidance should include instructions for class 8 (Corrosive), class 7 (Radioactive) and class 6, Division 6.1 (Poisonous) materials as discussed below:

8.2.1 **Corrosive Materials (Class 8):** 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 (Oxidized) materials must be prevented. The segregation prescribed in the Technical Instructions must be maintained for all packages containing Dangerous Goods that might react dangerously when stored in a position that causes or contributes to leakage.

8.2.2 **Radioactive Materials (Class 7):** The storage of Class 7 (radioactive) materials labeled yellow II and/or yellow III will not exceed a transport index of 50 in a single storage location. These materials are in an area that is isolated from people and does not permit pedestrian traffic or loitering. The minimum separation distances prescribed in the ICAO Technical Instructions should be maintained between radioactive materials labeled yellow II and yellow III and packages of undeveloped film.

8.2.3 **Poisonous Materials (Class 6, Division 6.1):** Packages bearing a Class 6, Division 6.1 poison label will not be stored in the same located as foodstuffs, feeds or any edible materials intended for consumption by either humans or animals.

8.3 Loading of Dangerous Goods

The Operator shall specify guidance for loading Dangerous Goods. This guidance shall include:

8.3.1 Loading of Dangerous Goods in aircraft in accordance with Nig. CARs 15.18, 15.19, 15.20, 15.21, 15.22 and the ICAO Technical Instructions.

8.3.2 Loading and Carriage of Dangerous Goods in Cargo Only Aircraft (COA), when other means of transportation are not available or impracticable, in accordance with the ICAO Technical Instructions.

8.3.3 Loading of and carriage of radioactive materials in aircraft, in accordance with the ICAO Technical Instructions.



- 8.3.4 Loading of Dangerous Goods in Cargo Compartment or Freight Containers within Cargo Compartments in accordance with the ICAO Technical Instructions.
- 8.3.5 A prohibition against loading packages bearing a poison label in the same compartment that holds foodstuffs, feeds or any edible materials intended for consumption by humans or animals unless both commodities are separated, Closed-Unit Load Devices known as Freight Containers.
- 8.4 Written Notification To Pilot In Command (Pic) (NOTOC):** Operators must establish procedures for notifying the PIC when Dangerous Goods are carried on board the aircraft in accordance with Nig. CARs 8.5.1.27, 9.6.1.13(f) and 15.16.
- 8.5 Reporting Dangerous Goods Incidents:** The Dangerous Goods information must include Company Procedures for reporting Dangerous Goods incidents in compliance with Nig. CARs 9.6.1.15 and 15.26. This includes the procedures for reporting discrepancies, in accordance with the ICAO Technical Instructions.
- 8.6 Information in the Event of an In-Flight Emergency:** Relevant manuals must contain procedures and instructions for the PIC to follow in case there is an in-flight emergency involving dangerous goods incident or accident as required in Nig. CARs 9.6.1.13 (g). **Guidance is provided in ICAO Doc 9481: *Emergency Response Guidance for Aircraft Incidents Involving Dangerous Goods.***
- 8.7 Damage to Dangerous Goods Packages:** The Operator must develop procedures for handling damaged packages in accordance with Nig. CARs 9.6.1.10 and 9.6.1.11. Radioactive Contamination and Substances in Class 6, Division 6.2 (Infectious Substances) as found in the ICAO Technical Instructions. The information should include a list of telephone number 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.

9.0 COORDINATION

- 9.1 The DGI assigned to the Operator may be required to act as a coordinator between the operator and the Authority with respect to queries on Dangerous Goods.

10.0 EXEMPTIONS

- 10.1 When an Air Operator applies for either an Initial Exemption for the carriage of certain Dangerous Goods on Commercial Air Transport, the DGI may need to review the compliance history of the Operator.
- 10.2 There are Two Types of Exemptions: An Exemption which is obtained through the standard Exemption Process and an Emergency Exemption (also applied through the normal process as provided in the Regulations) that is issued to the shipper who hires and provides the name of

the Operator in the exemption. The emergency exemption will normally be issued exclusively for one-time only shipment.

All exemptions requests must be processed in accordance with AC-GEN012 and TGM Vol.1 Chapter 12.

11.0 VIOLATIONS AND INVESTIGATIONS

- 11.1** When an Inspector becomes aware of a suspected Dangerous Goods violation, the Inspector shall notify the DGI assigned to the Operator. The DGI will conduct Inspections, Surveillance and Investigations of the Dangerous Goods in Commercial Air Transport Operations.

12.0 SOURCES OF INFORMATION

- 12.1** ICAO Technical Instructions for the safe transport of Dangerous Goods by Air (DOC 9284) – These Technical Instructions amplify the basic provisions of Annex 18 to the convention on the International Civil Aviation and contain detailed instructions necessary for the safe International Transport of Dangerous Goods by Air.
- 12.2** The provisions of the Nigerian Civil Aviation Regulations for the safe transport of dangerous Goods by Air - Nig. CARs Parts 8, 9 and 15 contain regulations necessary for the safe transport of Dangerous Goods by Air in Nigeria.

13.0 EVALUATION OF DANGEROUS GOODS PROGRAMMES

- 13.1** The Air Operator certificate (AOC) Holder is responsible for ensuring safety in Air Transportation when accepting, loading and transporting Dangerous Goods through adherence to the approved Dangerous Goods Programmes.
- 13.2** The Civil Aviation Act requires the Authority to monitor and enforce compliance with the provisions of Annex 18 to the Chicago Convention and the ICAO Technical Instructions for the Safe Transport of Dangerous Goods by Air. Nig. CARs 8.5.1.27, 8.10.1.10, Part 9.6 and Part 15 are the Regulatory Requirements Implementing the Civil Aviation Act and they make reference to the requirements of the ICAO Technical Instructions.

14.0 EVALUATION

- 14.1** The Authority has the oversight responsibility to determine if the AOC Holder's Dangerous Goods Programme meets all applicable requirements of the Regulations and ICAO Technical Instructions and to identify any shortfall in the Certificate Holder's Dangerous Goods Programme.
- 14.2** The Checklists in Section 2.0 provides information, direction and guidance to be used by Dangerous Goods Inspectors concerning inspections of Dangerous Goods, the acceptance of Dangerous Goods or Dangerous Goods Manuals to ensure that they are consistent with the requirements of the Regulations.

15.0 AUTHORISATION PROCESS

15.1 General Information

15.1.1 The following Authorization and Approval Process provides for a continuous interaction from the applicant's initial enquiry to the issue or denial of the requested Authorization /Approval by the Nigerian Civil Aviation Authority. It ensures that the Applicant's Proposal Programmes, Systems, Arrangements, Facilities, Documentation, Personnel and Methods of Compliance are thoroughly Reviewed, Evaluated and Tested by use of a Five Phase Process.

15.1.2 The Authorization Process for Dangerous Goods approval is in Five (5) Phases. The five phases are:

1. Pre-Application
2. Formal Application
3. Document Evaluation
4. Inspection
5. Approval or Authorization Issue/Grant or Denial (Authorization)

15.1.2. Pre-Application Phase

Submission of a letter of intent/renewal to transport Dangerous Goods by the prospective applicant/operator

15.1.3 The Authority will appoint a Team of Dangerous Goods Inspectors (DGIs) and Authorization Project Manager (APM) will be selected among them. The assigned APM will be the designated principal spokesperson for the Authority in the whole Authorisation process.

15.1.4 The Designated Authorization Team will process the application as follows:

- (a) Provide a working Authorization Number for the applicant.
- (b) Check the –“Information Only” Cursory Review of the application and enter the date the document was received by the Authority.
- (c) Enter – Proceeding with Formal Authorization in the Remarks Section and show the Authorization Number
- (d) The assigned APM will contact the applicant to arrange a Formal Application Meeting.

15.2 Formal Application Phase

15.2.1 Meet with the applicant to discuss questions, if any, concerning the Authorization Process, Regulatory Requirements, the Formal Application and attachments and any other related issues.

15.2.2 Accomplish the following during the meeting(s)

- (a) Discuss the regulations applicable to the proposed authorization sought.
- (b) Provide the applicant with a copy of the requirements.

- 15.2.3 The Formal Application meeting will include the following:
- (a) A completed Application Form.
 - (b) Copies of the required documents and manuals e.g. DG Manual and Loading/ Ramp Manual.
 - (c) A letter indicating when the applicant will be ready for inspections of their facilities.
 - (d) Receive the Formal Application: Ensure that all documents have been submitted and are complete.
 - (e) Evaluate the Application Package: Based on the initial survey of the Application Package a decision must be made on whether or not to continue with the Authorization Process.
 - (f) Conduct an Application Meeting: Any unresolved issues concerning the package must be answered before proceeding to the next phase. This should be done in the most effective way possible, e.g. meetings or correspondence.

15.3 Document Compliance Phase

- 15.3.1 Review the Application Package by carrying out an in-dept review of the contents of each submitted document for Regulatory Compliance. The documents to be reviewed include:
- (a) The Operator's Application Letter
 - (b) All Manuals and Documents
 - (c) The list of all relevant attachments.
- 15.3.2 **Discrepancies** – Record discrepancies found in any document and determine in discussion with the applicant options for their resolution. Inform the applicant that the Authorization Process will not continue until all discrepancies are resolved. If the discrepancies cannot be resolved or the Authorization Process is stopped, the applicant will be informed in writing with all the discrepancies observed.

15.4 Inspection Phase

- 15.4.1 **Housing and Facility**- Are inspected during the Inspection Phase to ensure that they comply with Regulatory Requirements and are in accordance with procedures stipulated in the associated manuals and documents evaluated.

15.4.2 The Inspection System to ensure the following:

- (a) Employees are familiar with the safe transportation of DGR procedures and are competent of performing their assigned duties.
 - (b) Facilities can support the operation requested.
 - (c) Procedures are followed strictly.
 - (d) Personnel are adequately trained, and training records well maintained.
 - (e) Personnel are competent in Ramp / Cargo Operations.
 - (f) Record keeping system to ensure that the requirements of the Nigeria Civil Aviation Regulations are met.
- 15.4.3 Ensure that the number of personnel is sufficient to satisfy the volume and type of work

to be performed.

- 15.4.4 **Analysing Discrepancies** – If discrepancies are noted, meet with the applicant to review discrepancies in detail. Corrective action must be taken and the assigned APM should notify the applicant in writing, in order that the Authorization Process may continue. Each discrepancies and corrective action must be fully documented and recorded in the Authorization File.

15.5 Authorization Phase

- 15.5.1 When the applicant has met all regulatory requirements, the assigned APM will accomplish the following:

- (a) Document the following information
 - (i) Findings and recommendations
 - (ii) Discrepancies noted and comments
 - (iii) Date of Inspection
 - (iv) The assigned APM and Authorization Team Members, official designation and signature
- (b) Prepare the Authorisation Letter which will be signed by the Authority
- (c) Prepare the Specific Operating Provisions (SOPs) or Operations Specifications (Ops Specs) as appropriate showing the approvals and limitations which will be signed by the Authority.
- (d) Ensure that the Authorization Report contains at least the following:
 - (i) Operator's Application Letter
 - (ii) A completed copy of the Inspection Form
 - (iii) A copy of the Authorization Letter
 - (iv) A copy of the SOPs or Ops Specs issued.

15.6 Results

- 15.6.1 Successful completion of this task will result into the following:

- (a) Issue of an Approval Letter and SOPs or Ops Specs
- (b) Notifying the applicant in writing

- 15.6.2 If the Authorization is unsuccessful, due to either applicant termination or the failure of an inspection the person responsible for Safety Oversight will be briefed and letters will be written to the applicant describing the reasons.

- 15.6.3 The Original Authorization Report will be retained at the Authority office.

16.0 PROCEDURES FOR NOTIFYING ICAO OF VARIATION FROM THE TECHNICAL INSTRUCTIONS (TI OR DOC9284)

16.1 Nigeria will take the necessary measures to achieve compliance with the detailed provisions of these Technical Instructions. However, when Nigeria adopts different provisions from those specified in the Technical Instructions, Nigeria will notify ICAO promptly of such provisions for publication in the Technical Instructions in compliance with the requirements of Annex 18 Section 2.5. Those different provisions unless the text makes it otherwise, apply as follows:

- a) where such variations result in more restrictive provisions than those contained in the Technical Instructions, as they apply to the transport of dangerous goods by air:
 - 1) Dangerous Goods transport to, from or through all territory subject to the sovereignty of Nigeria by all operators; and
 - 2) Outside the territory of Nigeria to all operators for whom Nigeria is the State of the Operator.
- b) where such variations result in less restrictive provisions than those contained in these Instructions, the variations are listed for information only and may only be applied within the territory of Nigeria by operators for whom Nigeria is the state of operator.

16.2 Nigeria will take the necessary measures to ensure that when an operator adopts more restrictive requirements than those specified in the Technical Instructions, the notification of such operation operators, variation is made to ICAO for publication in technical instruction the Technical Instructions.

17.0 CONTINUING SURVEILLIANCE AUTHORIZED & NON-AUTHORISED DANGEROUS GOODS OPERATORS AND HANDLERS

17.0 Continuing Surveillance

17.1 Continuous Inspection and Demonstration Phase

This section contains the surveillance methodology and the minimum events by which the Dangerous Goods Department will continuously monitor Authorized and Non-Authorized Dangerous Goods Inspectors and Handlers.

The Dangerous Good unit has an annual plan of inspections and observations of each Authorization holder/Service Provider to ensure that they continue to meet the basis for issuance of the authorization given during the original certification. This can be described as a 24-month “inspection and demonstration” phase.

If the Dangerous Good unit determines that there are safety issues, the Authorization holder will be requested to take the necessary action to achieve a mutual resolution.

Correction of some of these issues may require “document evaluation,” “satisfactory demonstration,” and “acceptance or approval.” It should be noted that, even when there are no Authorization requests for certification actions, the Authorization holder is being “re-certificated” on a biannual basis through this continuity surveillance process.

17.2 Authorization Holders’/ Service Providers’ Responsibility

The Authorization holder is responsible for conducting all operations in full compliance with applicable:

- Nigeria Civil Aviation Regulations
- ICAO Technical Instructors

If at any time, the Authorization holder and its operations are found not to be equal to or exceeding these standards, this could be the basis for suspension and/or revocation of the Authorization.

17.3 Surveillance and Inspection Programme

The surveillance and inspection Programme for each Authorization holder will contain both planned and random events. An annual Programme of required minimum inspections for each operator will be developed and submitted by the end of first quarter for the coming surveillance year. These individual inspections will be assigned to specific quarters of the year and to specific inspectors assigned to an Authorization holder for accomplishment not later than June each year.

17.4 Issuance of Quarterly Inspection Requirements and Review

1. The Dangerous Goods Inspectors will ensure that quarterly inspection requirements have been issued based on the following guidelines for planning of minimum required annual inspections. The validity periods for these inspection requirements will be from, July through September, October through December, January through March and April through June.
2. There shall be yearly review of surveillance activities, inspections and incidents reports by the Dangerous Goods Department.

Yearly reviews will include inspections, incidents, and findings from various inspections. Items reviewed will include follow up actions / enforcement actions, trends affecting safety and need to increase or refocus future Operators Inspections.

Risk analysis and Safety Management system (SMS) concepts will be used in the yearly reviews.

17.5 Foreign Aircraft Safety Assessment Programme (FASAP) Inspection

See FASAP Surveillance programme T.G.M Chapter 30 Section 2.4.

17.6 Authorization Inspections

Following the Authorization issuance, the Dangerous Good Department will continue to do a heightened level of surveillance to ensure that the Authorization holder transitions smoothly into a mature status. This is not considered a part of the original Inspection and Demonstration Phase, but is in fact an extension of the concept of early validation of new activities, that the Authorization holder undertakes. Some of the more critical are outlined in the Safety Audit Plan Section.

17.7 The Safety Audit Plan

1. Introduction

ICAO's Standards and Recommended Practices is a safety program to achieve an acceptable level of safety in aviation operations. In order to fulfill these obligations, the NCAA has provided regulations and directives to the aircraft operators, various authorization holders, providers of air traffic services (ATS), aerodromes etc. for conduct of safe operations from their side.

Flight Standards Group has planned this safety audit to ensure achievement of acceptable level of safety from all the concerned aviation related organizations regarding handling and transportation of dangerous goods by air.

2. Purpose

The purpose of this audit plan is to assess how well these organizations are meeting their safety objectives and to get feedback about their level of safety performance, besides the assessment of the suitability of the procedures established by them and of the facilities provided for the handling of dangerous goods.

3. Objectives

The objectives of this audit are:

- a. to access the degree of adherence to CAA regulation and ICAO's Annex 18: Technical Instructions regarding dangerous goods.
- b. to monitor and assess the process of dangerous goods handling.
- c. to identify potential problems in handling dangerous goods.
- d. to implicate a sense of accountability for dangerous goods safety
- e. to ensure remedial actions in case of dangerous goods incidents and accidents.
- f. to establish dangerous goods occurrence reporting system
- g. to establish a system for the investigation of dangerous goods occurrences
- h. to develop procedures for gathering dangerous goods safety data from available sources
- i. To assess and recommend for the approval of the training programs and lesson plan of the organizations/ individuals related with civil air transport.

4. Unit/Sections to be audited

1. Aircraft Operators

- a. Sales & Reservation operations
- b. Passenger Handling operations
- c. Ground Handling operations
- d. Cargo Handling operations
- e. Flight and Cabin Crew operations
- f. Aircraft Maintenance and Technical operations

2. Freight Forwarders

- a. Shipment preparation and packing operations
- b. Acceptance and Custom Clearance operations
- c. Export and Import operations

3. Cargo Warehouse

- a. Import & Export operations
- b. Store operations

4. Airport Security

- a. Passenger screening
- b. Checked and Carry-on baggage screening

5. Planned Activities

- j. Initial inspection
- k. Formal periodic inspections.
- l. Surprise inspections.
- m. Recommendation for sanctions or fines for non-compliance with the NCAA regulations and directives
- n. Formal safety oversight audits of airlines or service providers such as ATS, approved maintenance organizations, training centers, airport authorities, freight forwarders etc.
- o. Sample Interview.
- p. Observation of actual work and workplace.

6. Audit Team

- q. Authorized Team Leader as assigned by the NCAA Dangerous Goods Coordinator.
- r. Other members as required.

7. Establishment and Implementation of Surveillance Program

I. Inspection of Operators

- a. Inspection of DG Manual
- b. Inspection of Training Programs

- c. Inspection of staff Training and recording system
- d. Inspection of consignment at cargo facilities- Packages and documents
- e. Inspection of cargo for suspected undeclared dangerous goods
- f. Ramp Inspection- Loading and stowage
- g. Passenger Information Inspection- warning notices
- h. Inspection of baggage security check

II. Inspection of Shipper and/or Freight Forwarders

- i. Inspection of DG Handling authorization
- j. Inspection of DG Manual
- k. Inspection of Training Programs
- l. Inspection of staff Training and recording system
- m. Inspection of consignment at Warehouse facilities- Packages and documents
- n. Storage and segregation procedures
- o. Inspection of cargo for suspected undeclared dangerous goods
- p. Shipper Information Inspection- warning notices

III. Inspection of Postal Authority

- q. Inspection of DG Handling authorization
- r. Inspection of DG Manual
- s. Inspection of Training Programs
- t. Inspection of staff Training and recording system
- u. Inspection of consignment at Warehouse facilities- Mails, packages and documents
- v. Storage and segregation procedures
- w. Inspection of mail for suspected undeclared dangerous goods
- x. Shipper Information Inspection- warning notices

IV. Surveillance and Inspection program

- y. Initial Inspection:
 - Within one year of the flight operation or receipt of DG Handling Authorisation
- z. Follow up Inspections:
 - Annually
- aa. Random Inspections:
 - As and when required or deemed necessary.

17.8 The Safety Audit process

17.8.1 Development of audit plan

- a. Send formal notification in advance to the organization about the intention to perform audit.

- b. Request the auditee to provide relevant records, manuals etc., if required before the commencement of actual audit.
- c. Send information about the purpose, scope, resource requirements, audit and follow-up processes, etc. to the auditee beforehand.
- d. Identify and review information that will be needed before the commencement of the audit.
- e. Specify the criteria against which the audit will be conducted.
- f. Develop a detailed audit plan. (Refer Chapter 4)
- g. Prepare checklists to be used during the audit by grouping questions under relevant topic headings as below:
 - i NCAA safety regulatory requirements
 - ii Auditee's safety policies and standards
 - iii Auditee's structure of safety accountability
 - iv Availability of the documents relating to:
 - safety management manual
 - operational documentation
 - v Auditee's organizational safety culture
 - vi Process regarding hazard identification and emergency management
 - vii Safety oversight capabilities- monitoring, inspections, audits etc.
 - viii Provisions for assuring safety performance of contractors.

17.8.2 Conduct of the audit

- a. Briefly present background for the audit, its purpose and specific issues to be addressed at the opening of the meeting.
- b. Agree upon the member of staff to be interviewed with the auditee.
- c. Include the following methods of gathering information for assessment purpose:
 - review of documentation
 - interviews with staff, and
 - observations by the audit team
 - site/ work inspection
- d. Use standardized observation sheets to note the observations.
- e. Prepare relevant checklist and use it systematically.
- f. Investigate thoroughly when particular areas of concern are identified
- g. Interview people to obtain additional information over those available in written material by:
 - asking questions to get information about the work practices
 - face-to-face discussions to assess level of understanding and commitment to safety.
- h. Make observation of the work and working places.
- i. Avoid the tendency to limit observations to regulatory non-compliance.
- j. Review all audit observations after completion of the audit activities.
- k. Compare audit findings against the relevant regulations and procedures to confirm correctness of the observation noted as nonconformities, deficiency and shortcomings
- l. Assess the seriousness of items noted as nonconformities, deficiencies or safety shortcomings.

- m. Highlight good practice being practiced by the auditee.
- n. Hold a closing meeting with the auditee to de-brief them on audit observation, significant findings and to confirm factual accuracy.

17.8.3 Determination of corrective actions, if required

- a. Document all identified areas of safety concern
- b. Advise auditee to undertake the remedial actions to resolve deficiencies or safety shortcomings.

17.8.4 Submission of audit reports

- a. Make audit report as objective as possible.
- b. Prepare audit report with: **(Refer Checklist-1)**
 - consistency in recommendations
 - clear statement of observations and recommendations
 - conclusions supported by references
 - avoidance of generalities and vague observations
 - objective presentation of the observations
 - use of widely accepted aviation terminology
 - avoidance of criticism of individuals or positions.

17.8.5 Determination of Audit follow-up

- a. Make follow-up audit to ensure progress towards reduction or elimination of the safety concerns.
- b. Verify effective implementation of the corrective actions by the auditee.
- c. Do not compromise on lapses in the implementation of the agreed safety actions by the auditee.
- d. Monitor the status of implementation of corrective action plans through follow-up audit visits.
- e. If a follow-up visit has been made, prepare and submit a report of this visit also.
- f. Indicate clearly the current status of the implementation of the corrective actions.
- g. Highlight if the non-compliance, deficiency or safety shortcoming remains unresolved.

17.9 Deficiencies

Deficiencies observed during inspection shall be recorded in the Summary of Audit Findings / Deficiencies **Form O-OPS019**. For on-the-spot (Aircraft inspection) findings / deficiencies, the Safety Issues Resolution Report **Form O-OPS003** shall be issued to the operator while Form O-OPS019 is used to document and follow up on the findings/deficiencies.

The Authorization holder and inspector must agree on the corrective action plan and the target date. For deficiency that is a violation of the regulations which requires an enforcement action, the inspector shall follow the procedures detailed in the **Compliance and Enforcement Handbook**.



17.10 Surveillance based on risk management system

The Dangerous Goods Department will apply the principle of risk management: to identify Authorization holders perceived to present a higher safety risk and as a result, will conduct additional inspection activities on these Authorization holders.

The Dangerous Goods Department will meet monthly to identify Authorization holders perceived to present a higher safety risk by discussing the Occurrence database analysis carried out thereof, audit reports and Inspection reports based on which the minimum required inspection is increased by a factor determined at the meeting.