

Civil Aviation Authority of Nepal
Dangerous Goods Handling Requirements
(2009)



Civil Aviation Authority of Nepal
Aviation Safety Department
Sinamangal, Kathmandu, Nepal

Amendment- 01
Dangerous Goods Handling Requirements 2009

The following additions and corrections are made in the "Dangerous goods Handling Requirements 2009" in accordance with the ICAO Technical Instructions and as advised by the ICAO Safety Oversight Inspector.

Addition

- 1.3 The CAA of Nepal has adopted all the provisions related with the carriage of dangerous goods as specified in the ICAO Technical Instructions and have issued the Dangerous Goods Handling Requirements 2009 commensurate to:
- 1.4 The CAA of Nepal will comply with the detailed provisions of the Technical Instructions. and will also notify ICAO of any different provisions from those specified in the Technical Instructions.
- 1.5 The CAA of Nepal will make necessary amendment for compliance whenever amendment in the Technical Instructions is published.
- 1.2.2
- vi. The provisions contained in the ICAO Technical Instructions shall also be applicable to the transport of dangerous goods by surface transport to or from aerodromes.

Chapter – Sixteen
Classification

The classification of an article or substance shall be in accordance with the provisions of the Technical Instructions.

Chapter - Seventeen
Dangerous Goods Security

- 17.1 The Civil Aviation Authority will take measures commensurate with the provisions specified in the Technical Instructions and in Annex 17 in order to minimize theft or misuse of dangerous goods that may endanger persons, property or the environment.
- 17.2 The shippers, operators and individuals engaged in the transport of dangerous goods by air should establish security procedures to prevent theft and/ or misuse of dangerous goods

Corrigendum

- 5.4 "Packagings" instead of "Packing"
- 6.1 "labelled with the appropriate labels" instead of "marked with proper shipping name"
- "Technical Instructions" in place of "Technical Instruction"

Amendment- 02

Dangerous Goods Handling Requirements 2009

The following training aspects are required to be added in Appendix- 04, Minimum Requirements for Training Curricula of the CAAN "Dangerous Goods Handling Requirements 2009" in accordance with the changes in the current edition of the ICAO Technical Instructions, Doc. 9284, AN/905.

1. The training aspects related with "Limitations" of dangerous goods required to be added in the curricula related with category 5 and 8 of the Appendix.
2. The training aspects related with "Classification" of dangerous goods required to be added in the curricula related with category 12 of the Appendix.

The ICAO Technical Instructions has also provided contents for the training courses for Operators not carrying dangerous goods as cargo which is also required to be added in the "Dangerous Goods Handling Requirements 2009" as below.

Minimum Requirements for Training Curricula for "NO CARRY" Operators

Minimum aspects of transport of dangerous goods by air with which the staff should be familiar	Category of Staff				
	7	8	9	10	11
General Philosophy	X	X	X	X	X
Limitation	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

DANGEROUS GOODS HANDLING REQUIREMENTS

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FOREWORD

Dangerous Goods Handling Requirements known hereafter DGHR has been issued by Director General of Civil Aviation Authority of Nepal in pursuant to article 82 of Civil Aviation Regulation 2058 (2002) in order to fulfill the state's obligation compliance of standard and Recommend practice of Annex 18 to the convention

The requirement contain here in are developed with the pertinent articles of civil Aviation Act 2053 (1996), Civil Aviation Regulation 2058 (2002) and are in format and manner of Annex 18 as far as possible. These requirements shall be applicable to all shippers, agents, operators, agencies and persons engaged in transportation of dangerous goods in, from and to Nepal. These requirements come into force with immediate effect.

(Ram Prasad Neupane)
Director General
Civil Aviation Authority of Nepal

Chapter - One General

1.1 Objective

Objective of these requirements is to ensure the safe handling and transportation of dangerous goods by air.

1.2 Short title, extent and application

1.2.1 Title:-These requirements are called as "Dangerous Goods Handling Requirements 2009"

1.2.2 Extent:- These requirements extend to whole of Nepal and apply to;

- i. all aircrafts registered in Nepal
- ii. all aircrafts operated by operators whose principal place of business or permanent place of residence is in Nepal wherever they may be.
- iii. all aircrafts over flying Nepalese Air Space.
- iv. all persons operating air transport service to ,from, within and over Nepal.
- v. all shippers and their agents transporting cargo including dangerous goods.

1.2.3 Application

These requirements shall come into force from the date of approval by Director General of Civil Aviation Authority of Nepal (CAAN).

1.3. These requirements have been issued commensurate to;

- ICAO Annex –18
- Civil Aviation Authority of Nepal Act 1996 Section 5-R
- Civil Aviation Regulation 2058 (2002)
- ICAO Technical Instructions for Safe Transportation of Dangerous Goods by Air.

1.4 Applicability

Aviation Safety Department shall have a unit for the oversight of dangerous goods handling requirements. Same shall be reported to ICAO.

1.5 Responsibility

Aviation Safety Department within Civil Aviation Authority of Nepal shall be the entity responsible for ensuring compliance with Annex 18.

1.6 Revision and amendments

Aviation Safety Department shall be responsible for updating the contents of these requirements and get them approved by Director General. It will be amended when any applicable changes occur in CAR and other relevant annexes and documents.

1.7 Approval for Dangerous Goods Handling

All airlines operating service to, from, within and over Nepal and all shippers and their agents handling cargo including dangerous goods must take approval from the CAAN.

1.8 Language

All labeling and marking shall be in English.

Chapter - Two

Definitions

In these requirements, unless there is anything repugnant in the subject or context:-

- **Aerodrome** means any defined area of land or water intended to be used, either wholly or in part, for the purpose of landing, take off of aircrafts and which includes all buildings, equipments and other structures thereon or operating thereto.
- **Aircraft** means any machine which can derive support in the atmosphere from the reaction of the air other than reaction of the air against the earth's surface and includes balloons whether fixed or free, air ships, gilders and flying machines.
- **Cargo aircraft** means any aircraft other than a passenger's aircraft carrying goods or property.
- **Consignment** means one or more packages of dangerous goods accepted by an operator from one shipper at one time and at one address, receipted for in one lot and moving to one consignee at one destination address.
- **Crew member** means a person assigned by an operator to duty on an aircraft during a flying duty period.
- **Dangerous Goods** means articles or substances capable of posing a risk to health, safety, properties or the environment and which are listed as such in the Technical Instructions or which are classified according to the Technical Instruction.
- **Dangerous goods accident** means occurrences associated with and related to the transport of dangerous goods by air which results in the fatal serious injury to a person or major property damage.
- **Dangerous goods incident** means an occurrence, other than dangerous goods accident, associated with and related to the transport of dangerous goods by air, not necessarily occurring on board an aircraft which results in injury to a person, damage to property, fire, breakage, spillage, leakage of fluid or radiation or other evidence that the integrity of the packaging has not been maintained and also includes any occurrence relating to the

transport of dangerous goods which seriously jeopardize the aircraft or its occupants.

- **Director General** means Director General of Civil Aviation Authority of Nepal(CAAN)
- **Exception** means a provision in these requirements which excludes a specific item of dangerous goods from requirements normally applicable to that item.
- **Exemption** means an authorization issued by an appropriate national authority providing relief from provision of these requirements.
- **Flight crew** means a licensed crew member charged with duties essential to the operation of an aircraft during a flight duty period.
- **Incompatible** means describing dangerous goods which, if mixed or in contact with each other would be liable to cause a dangerous evolution of heat or gas or vapour or produce a corrosive substance.
- **Operator** means a person, organization or enterprise engaged in or offering to engage in an aircraft operation.
- **Over pack** means an enclosure used by a single shipper to contain one or more packages and to form one handling unit for convenience of handling and stowage.
- **Package** means the complete product of the packing operation consisting of the packaging and its contents prepared for transport.
- **Packaging** means receptacles and any other components or materials necessary for the receptacle to perform its containment function
- **Passenger aircraft** means an aircraft that carries any person other than a crew member, an operator's employee in an official capacity, an authorized representative of an appropriate national authority or a person accompanying a consignment or other cargo.
- **Pilot-in-Command** means the pilot designated by the operator of the aircraft as being in command and charged with the safe conduct of a flight
- **Serious injury** means an injury which is sustained by a person in an accident and which:

- (a) requires hospitalization for more than 48 hours, commencing within seven days from the date of injury was received; or
 - (b) results in a fracture of any bone (except simple fractures of fingers, toes or nose); or
 - (c) involves laceration which cause severe hemorrhage , nerve, muscles or tendon damage; or
 - (d) involves injury to any internal organ; or
 - (e) involves second or third degree burns, or any burns affecting more than five percent of the body surface; or
 - (f) involves verified exposure to infectious substances or injurious radiation.
-
- **State of origin** means the state in the territory of which the dangerous goods were first loaded on an aircraft.
 - **State of Operator** means the state in which the operator's principal place of business is located or, if there is no such place of business, the operator's permanent place of residence.
 - **Technical Instruction** means the technical instructions for the safe transport of dangerous goods by air issued by International Civil Aviation Organization(ICAO)
 - **UN Number** means the four digit numbers assigned by United Nations Committee of experts on the Transport of dangerous Goods to identify a substance or article or a particular group of substances or articles.
 - **Unit Load Device** means any type of freight container, aircraft container or aircraft pallet with a net, but excluding an over pack, designed for loading on an aircraft.

Chapter - Three

Carriage of Dangerous Goods by Air

- 3.1 Dangerous goods permitted for transport by air shall be forbidden except as established in these requirements and the detailed specifications and procedures provided in the Technical Instruction.
- 3.2 The dangerous goods described hereunder shall be forbidden on aircraft unless exempted by CAA Nepal or unless the provisions of Technical instructions indicate they may be transported under an approval issued by the state of origin:
- a) Articles and substances that are identified in the Technical Instruction as being forbidden for transport in normal circumstances; and
 - b) Infected live animals
- 3.3 Article and substances that are specifically identified by name or by generic description in the Technical Instructions as being forbidden for transport by air under any circumstances shall not be carried on any aircraft.
- 3.4 No operators shall carry and no person shall cause or permit to be carried in any aircraft to , from, within or over Nepal or deliver or cause to be delivered for loading on such aircraft any dangerous goods, except in accordance with and subject to the requirements specified in the Technical Instruction;
- provided that dangerous goods classified as explosives shall not be carried in any aircraft to , from, within or over Nepal except in accordance with and subject to the terms and conditions of a permission in writing granted by Nepal Government.
 - Provided further that where dangerous goods classified as radio active material are to be carried in any aircraft to , from or within Nepal , the operator shall ensure that the consigners or the consignee , as the case may be, has written consent to the Nepal Government to carry such goods .

- Provided also that where there is extreme emergency such as national or international crisis or natural calamities or otherwise necessitating transportation by air of such goods and full compliance with the requirements specified in the Technical Instructions may adversely affect the public interest, the Director General or designee may, by general or special order in writing, grant exemption from complying with these requirements provided that he/she is satisfied that every effort has been made to achieve an over all level of safety in the transportation of such goods which is equivalent to the level of safety specified in the Technical Instructions.
- 3.5 CAA Nepal shall take the necessary measures to achieve compliance with the detailed provision contained in the Technical Instruction for the Safe transport of Dangerous Goods by Air which shall be revised as required.
- 3.6 The provisions of requirement 3.1 and 3.4 shall not apply to ;
- i. The articles and substances classified as dangerous goods but otherwise required to be on board the aircraft in accordance with the pertinent airworthiness requirements and the operating regulations, or for such specified purposes as are identified in the Technical Instructions.
 - ii. Specific articles and substances carried by passengers or crew members to the extent specified in the Technical Instructions
- 3.7 Where articles and substances intended as replacements for those described in 3.6.i or which have been removed for replacement are carried on an aircraft, they shall be transported in accordance with the provisions of these requirements as permitted in the Technical Instructions.
- 3.8 Where dangerous goods are carried under requirement 3.2, it shall be the duty of the shipper, the operator and every person concerned with packing, marking, labeling, acceptance, handling, loading, unloading, storage, transportation or any other process connected directly or in directly with carriage of such dangerous goods, to take all precautions to avoid danger to the aircraft or to the persons on board or to any other person or property.

Chapter - Four

Custody of un-authorized Dangerous Goods

- 4.1 Where any officer authorized by Director General has any reason to believe that the provisions of these requirements are, or are about to be, contravened, he/she may cause the dangerous goods in question to be placed under his/her custody pending detailed examination of the nature of the goods or pending a decision regarding the action, if any, to be taken in the matter.
- 4.2 Classification of dangerous goods: Dangerous goods shall be classified in accordance with the provisions of Technical Instruction.
- 4.3 CAA Nepal shall establish dangerous goods security measures, applicable to shippers, operators and other individuals engaged in the transport of dangerous goods by air, to be taken to minimize theft or misuse of dangerous goods that may endanger persons, property or the environment. These measures should be commensurate with security provisions specified in other requirements and the technical Instructions.

Chapter - Five

Packing of Dangerous Goods

- 5.1 Dangerous goods shall be packed in accordance with the requirements specified in the Technical Instructions in addition to the provisions of this chapter.
- 5.2 It shall be ensured that no harmful quantity of dangerous substances adheres to the outside of the packaging used for the transport of the dangerous goods.
- 5.3 Packaging used for the transport of dangerous goods by air shall be of good quality and shall be constructed and securely closed so as to prevent leakage which might be caused in normal conditions of transport by changes in temperature, humidity or pressure, or by vibration,
- 5.4 Packing shall be suitable for the contents and the packaging in direct contact with dangerous goods shall be resistant to any chemical or other action of such goods.
 - 5.4.1 The packaging shall meet the material and construction specifications contained in the Technical Instructions
 - 5.4.2 Packaging shall be tested in accordance with the provisions of the Technical Instructions.
 - 5.4.3 Packaging for which retention of a liquid is a basic function shall be capable of withstanding, without leaking, the pressure specified in the Technical Instructions.
- 5.5 Inner packaging used for the transport of the dangerous goods shall be packed, secured or cushioned in such a way that no breakage or leakage shall be caused and these shall also control the movement of the dangerous goods within outer packagings during normal conditions of air transport and also the cushioning and absorbent materials shall not react dangerously with the contents of the packagings.
- 5.6 No packaging used for the transport of the dangerous goods shall be re-used unless:

- i. it has been inspected and found free from corrosion or other damage and
- ii. all necessary precautions have been taken to prevent contamination of subsequent contents.

provided that where it is not possible to properly clean a packaging already used for the transport of dangerous goods, then such an uncleaned empty packaging shall be transported by air following the same procedure as laid down for the transport of the dangerous goods for which such packaging has been used earlier.

- 5.7 If, because of the nature of their former contents, uncleaned empty packaging may present a hazard, they shall be tightly closed and treated according to the hazard they constitute.

Chapter - Six Labeling and Marking

6.1 Labeling

Unless otherwise provided for in the Technical Instructions, each package of dangerous goods shall be marked with proper shipping name and labeled in accordance with the requirements specified in Technical Instructions.

6.2 Marking

6.2.1 Same as otherwise provided in the Technical Instructions, such package, overpack or freight container of dangerous goods shall be marked with the proper shipping name of the contents and , when assigned , the UN number and such other markings as may be specified in Technical Instructions.

6.2.2 Same as otherwise provided in the Technical Instructions, each packaging manufactured to the specifications of the Technical Instructions shall be marked in accordance with the provisions of the Technical Instructions and no other packaging shall be so marked.

6.2.3 English shall also be used for the markings related to dangerous goods.

Chapter - Seven

Shipper's Responsibilities

- 7.1 No shipper or his/her agent shall offer any package or over pack of dangerous goods for transport by air unless he/she has ensured that such dangerous goods are not forbidden for transport by air and are properly classified, packed, marked and labeled in accordance with the requirements specified in the Technical Instructions.
- 7.2 Unless otherwise provided by these requirements, no shipper or his/her agent shall offer dangerous goods for transport by air unless he/she has completed, signed and provided to the operator a dangerous goods transport document, as specified in the Technical Instructions.
- 7.3 The dangerous goods transport document shall bear a declaration signed by the shipper or his/her agent indicating that the dangerous goods are fully and accurately described by their proper shipping names and that they are classified, packed, marked, labeled and are in proper condition for transport by air as per requirements of the Technical Instructions.
- 7.4 English shall also be used in the dangerous goods transport document.

Chapter - Eight

Operator's Responsibilities

- 8.1 No operator shall accept dangerous goods for transport by air unless:-
- i. the dangerous goods are accompanied by a completed dangerous goods transport document, except where the Technical Instructions specify that such a document is not required , and
 - ii. the package, over pack or freight container containing the dangerous goods has been inspected in accordance with the acceptance procedures specified in the Technical Instructions.
- 8.2 The operator shall ensure that an acceptance check-list as required by Technical Instructions has been developed and is being used by his/her acceptance staff.
- 8.3 Package and over packs containing dangerous goods and freight containers containing radio active materials shall be inspected for evidence of leakage or damage before loading on an aircraft or into a unit load device and such package, over pack or freight containers shall be loaded and stowed on an aircraft in accordance with the requirements specified in the Technical Instructions.
- 8.4 The operator shall ensure that no leaking or damaged packages, over packs or freight containers containing dangerous goods shall be loaded on an aircraft
- 8.5 A unit load device shall not be loaded aboard an aircraft unless the device has been inspected and found free from any evidence of leakage from, or damage to any dangerous goods contained therein.
- 8.6 Where any package of dangerous goods loaded on an aircraft appears to be damaged or leaking the operator shall remove such package from the aircraft, or arrange for its removal by an appropriate authority or organization as the case may be, and thereafter shall ensure that the remainder of the consignments is in a proper condition for transport by air and that no other package has been contaminated.

- 8.7 Package or over packs containing dangerous goods and freight containers containing radioactive materials shall be inspected for signs of damage or leakage upon unloading from the aircraft or unit load device and if evidence of damage or leakage is found, the area where the dangerous goods or unit load device were stowed on the aircraft shall be inspected for damage or contamination.
- 8.8 No dangerous goods shall be carried in an aircraft cabin occupied by passengers or on the flight deck of an aircraft, except those specified in these requirements
- 8.9 Any hazardous contamination found on an aircraft as a result of leakage or damage to dangerous goods shall be removed without delay.
- 8.10 An aircraft which has been contaminated by radioactive materials shall immediately be taken out of service and not returned to service until the radiation level at any accessible surface and the non-fixed contamination are not more than the values specified in the Technical Instructions.
- 8.11 Package containing dangerous goods which might react dangerously with one another shall not be stowed on an aircraft next to each other or in a position that would allow interaction between them in the event of leakage.
- 8.12 Package of toxic and infectious substances shall be stowed on aircraft in accordance with the requirements specified in the Technical Instructions.
- 8.13 Package of radioactive materials shall be stowed on an aircraft so that they are separated from persons, live animals and undeveloped film, in accordance with the requirements specified in the Technical Instructions.
- 8.14 Subject to the provisions of these requirements, when dangerous goods are loaded in an aircraft, the operator shall protect the dangerous goods from being damaged, and shall secure such goods in the aircraft in such a manner that will prevent any movement in flight which would change orientation of the packages. For package containing radioactive materials, the securing shall be adequate to ensure that the separation requirements of requirement 8.13 are met at all times.
- 8.15 Except as otherwise provided in the Technical Instructions package of dangerous goods bearing the "Cargo Aircraft only" label shall be loaded in such a manner that a crew member or other authorized person can see, handle and, where size and weight permit, separate such package from other cargo in flight.

Chapter - Nine

Provision of Information

- 9.1 The operator of the aircraft in which dangerous goods are to be carried shall provide information in writing to the pilot-in-command as early as practicable before departure of the aircraft as required by the Technical Instructions.
- 9.2 The operator shall provide such information in their Operations Manual so as to enable the flight crew member to carry out their responsibilities with regard to the transport of dangerous goods and shall also provide instructions as to the action to be taken in the event of emergencies arising involving dangerous goods.
- 9.3 Operators shall ensure that information is promulgated in such a manner that passengers are warned as to the types of goods which they are forbidden from transporting aboard an aircraft as provided in the Technical Instructions.
- 9.4 Operators, shippers or other organizations involved in the transport of dangerous goods by air shall provide such information to their persons so as to enable them to carry out their responsibilities with regard to the transport of dangerous goods and shall also provide instructions as to the action to be taken in the event of emergencies arising out of or involving dangerous goods
- 9.5 If an in-flight emergency occurs, the pilot-in-command shall, as soon as the situation permits, inform the appropriate air traffic services unit, for the information of airport authorities, of any dangerous goods on board the aircraft, as provided in the Technical Instructions.
- 9.6 In the event of aircraft accident, or a serious incident where dangerous goods carried as cargo are involved, the operator of the aircraft shall provide information, without delay, to the airport authorities and airport security authorities, and as soon as possible, to the appropriate authorities of the State of the operator and the State in which the accident or serious incident occurred about the dangerous goods on board, as shown on the written information to the pilot-in-command
- 9.7 In the event of an aircraft incident, the operator of an aircraft carrying dangerous goods as cargo shall provide information without delay, to the airport authorities, emergency services responding to the incident and also to the appropriate authority of the State in which the incident occurred, about the dangerous goods on board, as shown on the written information to the pilot-in-command.

Chapter – Ten Inspection

- 10.1 Director General or his/her designee may at any reasonable time, enter any place to which access is necessary and inspect any services, equipment, documents and records.
- 10.2 The operator, shipper, training establishment and every other person concerned with carriage of dangerous goods shall allow the person so authorized, access to any part of the aircraft, building, or any facility including equipment, records, documents and personnel and shall co-operate in exercising his/her powers or carrying out his/her duties under these requirements.
- 10.3 Violations of these requirements are liable to penalty. Penalties for violation shall be as per the enforcement manual.

Chapter - Eleven

Dangerous Good Accident and Incidents

- 11.1 In the event of a dangerous goods accident or dangerous goods incident, as the case may be, the pilot-in-command of the aircraft and the operator of the aircraft or of the aerodrome, as the case may be, shall submit a report in writing to the Director General on such accident or incident.
- 11.2 The report under requirement 11.1 shall, in addition to any other relevant information, contain the following information:-
- i. the type, nationality and the registration mark of the aircraft
 - ii. the name of the owner, operator and leasee of the aircraft
 - iii. the name of the pilot-in-command of the aircraft
 - iv. the nature and the purpose of the flight
 - v. the date and time of the dangerous goods accident or incident
 - vi. the place where the accident/incident occurred
 - vii. the last point of departure and the next point of intended landing of the aircraft.
 - viii. the details of the dangerous goods on board the aircraft viz, their proper shipping name, UN number, quality etc
 - ix. the known cause of the dangerous goods accident or incident
 - x. details of the cargo on board the aircraft
 - xi. the extent of known damage to the aircraft, other property and persons on board the aircraft
 - xii. any other information required to be included by Director General

- 11.3 On receipt of the report under requirement 11.1, Director General may, if considered necessary with consultation with Government of Nepal in case of accident, order an investigation to determine the causes of such accident or incident and take preventive measures to avoid re-occurrence of such accident or incident.
- 11.4 With the aim of preventing the recurrence of dangerous goods accidents and incidents, CAA Nepal shall establish the procedures for investigation and for compilation of information concerning such accidents and incidents which are in its territory and which involve the transport of dangerous goods originating in or destined for another state. Reports on such accidents and incidents shall be made in accordance with the detailed provision of the Technical Instructions.
- 11.5 With the aim of preventing the recurrence of instances of undeclared or misdeclared dangerous goods in cargo and baggage, CAA Nepal shall establish the procedures for investigation and compilation of information concerning such occurrences which are in its territory and which involve the transport of dangerous goods originating in or destined to another state. Reports on such instances shall be made in accordance with the detailed provision of the Technical Instructions.

Chapter -Twelve

Establishment of Training Programme

- 12.1 No person shall engage him/herself in any manner in the transport of dangerous goods unless he/she has undergone proper training in accordance with the Technical Instructions and Appendix 3 and 4.
- 12.2 Initial and re-current dangerous goods training programmes shall be established and maintained by or on behalf of :-
- i. shippers of dangerous goods including packers and persons or organizations undertaking the responsibilities of the shippers.
 - ii. Air Operators
 - iii. Ground Handling agencies which perform on behalf of the operators, the act of accepting, handling, loading, unloading, transferring or other processing of cargo
 - iv. Ground handling agencies located at an airport which perform, on behalf of the operator, the act of processing passengers
 - v. Agencies, not located at an airport, which perform, on behalf of the operator, the act of checking in passengers
 - vi. Freight forwarders, and
 - v. Agencies engaged in the security screening of passengers and baggage and cargo
- 12.3 Training shall be provided in the requirements commensurate with the responsibilities of the personnel being trained and such training shall include;
- i. General familiarization training aimed at providing familiarity with the general provisions
 - ii. functions- specific training providing detailed training in the requirements applicable to the function for which that person is responsible and
 - iii. safety training covering the hazards presented by dangerous goods, safe handling and emergency response procedures

- 12.4 Training shall be provided or verified upon the employment of a person in a position involving the transport of dangerous good by air and re-current training shall take place within 24 months of previous training and ensure knowledge is current
- 12.5 The training programmes established and maintained by or on behalf of operators and on behalf of agencies other than operators shall be subject to review and approval by Director General
- 12.6 Dangerous Goods Inspector must also complete Dangerous Goods Regulations training applicable to category 6 of Appendix 4, Training Requirement

Chapter – Thirteen

Direction by Director General

- 13.1 The Director General through aeronautical information circulars(AICS) and publication entitled Civil Aviation Requirements (CARs) issue special directions, not inconsistent with the prevailing act and rules, and these requirements relating to packing, marking, labeling, acceptance, handling, loading unloading, storage, training and any other process or procedures connected directly or indirectly with the carriage of dangerous goods by air.

Chapter - Fourteen General Power of Exempt

Nepal Government may by general or special order in writing exempt any aircraft or any person from the operation of these requirements either wholly or partially subject to such conditions, if any, as may be specified in that order.

Chapter – Fifteen

Cancellation or Suspension of License, Certificate and Approval

Whether the Director General after giving an opportunity of being heard, is satisfied that any person has contravened or failed to comply with the provisions of these requirements, he/she may, for reasons to be recorded in writing cancel or suspend any license certificate or approval issued under these requirements or under other prevailing act and rules.

Sample Guidelines for Dangerous Goods Safety **Inspectors for the conduct of the Audit**

The dangerous goods safety inspectors/auditors may use the following guidelines for safety audit as per the case.

1. Review information from all relevant sources to carry out the process of inspection or fact-finding.
2. Prepare an Audit plan. (Appendix- 1)
3. Observation must not limit to items of regulatory non-compliance.
4. Briefly present background for the audit, its purpose and specific issues to be addressed at the opening of the meeting.
5. Agree upon for staff for interview with the manager of the unit.
6. Include review of documentation, interviews with staff and observation in the audit procedures to gather information.
7. Use standardized observation sheets to note the observations.
8. Prepare relevant checklist and use it systematically.
9. Investigate thoroughly when particular areas of concern are identified
10. Interview people to obtain additional information over those available in written material.
11. Review audit observations and compare them against the relevant regulations and procedures to find out nonconformities, deficiency and shortcomings
12. Assess the seriousness of all items which are noted as nonconformities, deficiencies or safety shortcomings.
13. Highlight good practice within the area that has been audited by not focusing on negative findings only.
14. Hold a closing meeting with the organization being audited to brief them on audit observation, significant findings and to confirm factual accuracy.
15. Identify and document all remedial actions to resolve deficiency and safety shortcomings by the organization being audited.
16. Prepare audit reports stating findings and recommendations clearly and concisely.
17. Make follow-up to ensure and verify effective implementation of the corrective actions undertaken by the organization being audited.

Appendix- 1

Sample Safety Audit Plan concerning Dangerous Goods

i. Introduction

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

Aviation Safety Department 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.

ii. 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.

iii. Objectives

The objectives of this audit are:

- to assess the degree of adherence to CAAN's safety directives regarding dangerous goods.
- to monitor and assess the process of dangerous goods handling.
- to identify potential problems in handling dangerous goods.
- to implicate a sense for accountability for dg safety
- to ensure remedial actions in case of dangerous goods incidents and accidents.
- to establish DG occurrence reporting system
- to establish a system for the investigation of DG occurrences
- to develop procedures for gathering DG safety data from available sources

iv. Unit/Sections to be audited

Aircraft Operators

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

Freight Forwarders

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

Custom Warehouse

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

Airport Security

- a. Passenger Screening
- b. Baggage and Carry on baggage screening

v. Planned Activities

- a. Formal periodic inspections.
- b. Surprise inspections.
- c. Recommendation for sanctions or fines for non-compliance with the CAAN regulations and directives
- d. Formal safety oversight audits of airlines or service providers such as ATC, approved maintenance organizations, training centers, airport authorities etc.
- e. Sample Interview.
- f. Observation of actual work and workplace.

vi. Schedule

- a. Twice a Year-April and October
- b. Surprise audit

vii. Audit Team

- a. Authorized Team Leader as assigned by the Aviation Safety Department, CAAN.
- b. Other members as required.

Appendix- 2

Sample of Safety Audit Checklist for Aircraft Operator regarding Dangerous Goods

Name of the operator :

Type of operation : Domestic International

No of aircraft : Version : Passenger Cargo

Total No. of employees: Administrative Maintenance/Tech Crew
 Back office Maintenance Flight
 Frontline Back office Cabin

I. Ticket Sales & Reservation

	Yes	No	N/A	Remarks
1. Aware of the hazards of the dangerous goods	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. Aware of the need of the DG training	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. Have completed DGR training as per ICAO/IATA requirements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4. Certification provision available	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5. Provision of re-current training	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6. Training records	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7. Notices prohibiting passengers to carry the types of goods onboard the aircraft prominently displayed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8. Information about DG included in Sales and Reservation manual	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

II. Passenger Check-in and Ramp

	Yes	No	N/A	Remarks
1. Aware of the hazards of the dangerous goods	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. Aware of the need of the DG training	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. Have completed DGR training as per ICAO/IATA requirements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4. Certification provision available	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5. Provision of re-current training	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6. Training records	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

	Yes	No	N/A	Remarks
7. Notices prominently displayed to warn the passengers about the types of goods which are prohibited to transport on board the aircraft	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8. Ramp handling staff familiar with the provisions of Inspection, loading & unloading, stowage and DG handling procedures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
9. Information about DG handling procedures included in Passenger Handling manual	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

III. Cargo Handling

1. Aware of the hazards of the dangerous goods	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. Aware of the need of the DG training	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. Have completed DGR training as per ICAO/IATA requirements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4. Certification provision available	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5. Provision of re-current training	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6. Training records	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7. Familiar with the DG Handling procedures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8. Familiar with the Emergency Response procedures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
9. Cargo Manual includes DG handling procedures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
10. Notices prominently displayed at the cargo acceptance area to warn the passengers about the types of goods which are prohibited to carry as cargo	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

IV. Aircraft Maintenance/ Technical

	Yes	No	N/A	Remarks
1. Aware of the hazards of the dangerous goods	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. Aware of the need of the DG training	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. Have completed DGR training as per ICAO/IATA requirements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4. Certification provision available	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5. Provision of re-current training	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6. Training records	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7. Maintenance Manual includes types of DG items and their handling procedures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

	Yes	No	N/A	Remarks
V. <u>Flight Crew</u>				
1. Aware of the hazards of the dangerous goods	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. Aware of the need of the DG training	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. Have completed DGR training as per ICAO/IATA requirements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

- | | | | |
|---|--------------------------|--------------------------|--------------------------|
| 4. Certification provision available | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Provision of re-current training | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. Training records | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7. Familiar with the Emergency procedures to be followed during flight | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 8. Operations Manual includes DG handling and Emergency response procedures | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

VI. Cabin Crew

- | | Yes | No | N/A | Remarks |
|---|--------------------------|--------------------------|--------------------------|---------|
| 1. Aware of the hazards of the dangerous goods | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 2. Aware of the need of the DG training | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 3. Have completed DGR training as per ICAO/IATA requirements | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 4. Certification provision available | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 5. Provision of re-current training | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 6. Training records | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 7. Familiar with the Emergency procedures to be followed during flight | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 8. Cabin Crew Manual includes DG handling and Emergency response procedures | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |

**Sample Of Safety Audit Checklist For Freight Forwarder Regarding
Dangerous Goods**

Name of the Cargo operator :

Total No. of employees: Back office Cargo Handling

	Yes	No	N/A	Remarks
1. Aware of the hazards of the dangerous goods	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. Aware of the need of the DG training	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. Have completed DGR training as per ICAO/IATA requirements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4. Certification provision available	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5. Provision of re-current training	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6. Training records	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7. Familiar with the DG Handling procedures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8. Familiar with the Emergency Response procedures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
9. Cargo Handling Manual	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Appendix- 3

Dangerous Goods Training Requirements

Individuals involved in the preparation or transport of dangerous goods require understanding of the Dangerous Goods Regulations in detail to carry out their responsibilities. They must be properly trained on the aspects of dangerous goods as per the nature of their job-function, which ranges from mere familiarization training to detailed training on all aspects of the Regulations. Both initial and recurrent training programs have to be properly planned and maintained for all persons concerned in the transport of dangerous goods.

The Recurrent training must be conducted within 24 months of previous training to update the knowledge of the concerned personnel. However, the concerned authority may define a shorter period for such training.

A written test must have to be delivered after the completion of the dangerous goods training to verify understanding of the regulations and to confirm successful completion of the test. A copy of the names of the individuals who have completed the initial as well as the recurrent training and their test scores have to be submitted to the Aviation Safety Department, CAAN for record and required certification. A minimum of 80 percent score on written test is required for such certification.

Training Program

Initial and recurrent training programs must have to be established and maintained by or on behalf of:

- a. operators
- b. ground handling agencies performing the act of accepting, handling, loading, unloading, transfer or other processing of cargo, mail or stores on behalf of the operator
- c. ground handling agencies located at an airport which perform the act of processing passengers on behalf of the operator,
- d. agencies, not located at an airport ,which perform the act of checking in passengers on behalf of the operator
- e. freight forwarders
- f. shippers of dangerous goods, including packers and persons' or organizations' undertaking the responsibilities of the shipper
- g. agencies engaged in the security screening of passengers and their baggage, cargo, mail and stores.

Training Curricula

Personnel must have to complete training in the requirements depending upon their job responsibilities. The training must include:

- a. general familiarization training— providing familiarity with the general provisions
- b. function specific training—providing detailed training in the requirements applicable to the function for which that person is responsible, and
- c. safety training—covering the hazards presented by dangerous goods, safe handling and emergency response procedures.

Approvals

Dangerous goods training programs for operators' personnel are subjected to review and approval by the Aviation Safety Department, CAAN. The dangerous goods training programs for all categories of staff, other than operators, must also be reviewed and approved by the Aviation Safety Department.

Record of Training

A record of training must be maintained as below:

- a. the individual's name
- b. the date of completion of the most recent training program
- c. the description, copy or reference of training materials used in meeting the training requirement
- d. the name and address of the institute or organization providing the training
- e. evidence of the written test showing successful completion

The training records must be made available to the Aviation Safety Department, CAAN after the completion of every initial and/or recurrent training program.

Instructors' Qualifications

- a. Must at least be an Undergraduate (Bachelor Degree)
- b. Must have completed Training of Trainers (instructional skills) course from a recognized national or international institutes, airlines or organizations
- c. Must have passed with DISTINCTION (90% or above) a dangerous goods training program applicable to Category 6 of Appendix 4, either of IATA or IATA member airlines or IATA accredited Training institutes or any other institutes or organizations recognized by CAAN, before delivering dangerous goods training program
- d. Minimum 2 years of cargo handling including dangerous goods or dangerous goods handling experience.

Instructors delivering initial and recurrent dangerous goods training programs must have to deliver such a course at least every 24 months, or in absence of this attend and complete recurrent training program from the institutes or organizations recognized by CAAN.

Appendix- 4

Minimum Requirements for Training Curricula

Minimum aspects of transport of dangerous goods by air with which the staff should be familiar	Shipper and packers		Freight forwarders			Operators and ground handling agents						Security screeners
	1	2	3	4	5	6	7	8	9	10	11	12
	Category of personnel											
General Philosophy	X	X	X	X	X	X	X	X	X	X	X	X
Limitations	X		X	X		X	X		X	X	X	X
General requirements for shippers	X		X			X						
Classification	X	X	X			X						
List of dangerous goods	X	X	X			X				X		
General packing requirements	X	X	X			X						
Packing instructions	X	X	X			X						
Labelling and marking	X	X	X	X	X	X	X	X	X	X	X	X
Shipper's Declaration 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

NOTE: 'X' indicates aspects to be familiar with.

Category of personnel

1. Shippers and persons undertaking the responsibilities of shippers', including operator's staff acting as shippers, operator's staff preparing dangerous goods as Company Materials (COMAT)
2. Packers
3. Staff of freight forwarders involved in processing dangerous goods
4. Staff of freight forwarders involved in processing cargo, mail or stores (other than dangerous goods)
5. Staff of freight forwarders involved in the handling, storage and loading of cargo, mail or stores
6. Operator's and ground handling agent's staff accepting dangerous goods
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 responsible for 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 deal with the screening of the passengers and their baggage and cargo, mail or stores.