



CIVIL AVIATION AUTHORITY OF NEPAL

Civil Aviation Authority of Nepal

Dangerous Goods Handling Requirements

FOURTH EDITION - 2017



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

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FOREWORD

This Fourth edition of the 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 for compliance with the Standard and Recommend practices of Annex 18 to the Convention on International Civil Aviation.

The requirements contain herein are developed with the pertinent articles of Civil Aviation Act 2053 (1996), Civil Aviation Regulation 2058 (2002) and are in format and manner of Technical Instructions as amended from time to time. These requirements shall be applicable to all shippers, agents, operators, agencies and persons engaged in the transportation of dangerous goods within, from and to Nepal. These requirements come into force with immediate effect.

(Mr. Sanjiv Gautam)
Director General
Civil Aviation Authority of Nepal



DANGEROUS GOODS HANDLING REQUIREMENTS

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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"

1.2.2 Applicability;- These requirements shall be applicable to whole of Nepal and apply to:

- i. all aircraft operated by operators whose principal place of business or permanent place of residence is in Nepal wherever they may be.
- ii. the postal operators accepting dangerous goods in mail for air transport.
- iii. all Operators operating air transport service to, from, within and over Nepal.
- iv. all shippers of dangerous goods, including freight forwarders, packers and persons or organizations undertaking the responsibilities of the shippers.
- v. the transport of dangerous goods by surface transport to/from the aerodromes.

1.2.3 Application

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



1.3. The CAA of Nepal has incorporated all the provisions of the ICAO Technical Instructions for the Safe Transport of Dangerous Goods by Air as amended from time to time and has issued the Dangerous Goods Handling Requirements commensurate to;

- Civil Aviation Authority of Nepal Act 1996 Section 5-R
- Civil Aviation Regulation 2058 (2002)- Section 68
- ICAO Technical Instructions for Safe Transportation of Dangerous Goods by Air. (Doc 9284, AN/905)
- Emergency Response Guidance for Aircraft Incidents Involving Dangerous Goods. Doc 9481(AN/928).

1.4 Responsibility

Flight Safety Standards Department within Civil Aviation Authority of Nepal shall be the entity responsible for ensuring compliance with the Technical Instructions.

The Department will make necessary amendments and revisions for compliance whenever any changes in the Technical Instructions are published and/or changes in the CAAN regulations.

Flight Operations Department under Flight Safety Standards Department shall have unit for the oversight of dangerous goods handling requirements. Same shall be reported to ICAO.

The CAAN shall notify ICAO of differences, if any from the regulations specified in the Technical Instructions.

1.5 Revisions and amendments

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

1.6 Approval for Dangerous Goods Handling

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



CAAN will carry out "On site" inspection of the operator and other entities before recommending for endorsement to handle and transport dangerous goods.

The application forms for operator, shipper and postal operator are presented in Appendix 5A, 5B and 5C respectively.

The Checklist for application is presented in Appendix 5D.

The specimen of the certificate for "Dangerous Goods Operator/ Shipper/ Designated Postal Operator" is presented in Appendix 9.

1.7 Language

English should be used for documentation, marking and labeling.



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Chapter - Two

Definitions

The terms use in these requirements shall have the following meanings:-

- **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.
- **Approval** means an authorization granted by an appropriate national authority for:
 - a) the transport of dangerous goods forbidden on passenger and/or cargo aircraft where the Technical Instructions state that such goods may be carried with an approval; or
 - b) other purposes as provided for in the Technical Instructions.
- **Cargo aircraft** means any aircraft other than a passenger 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 hazard 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 Instructions.
- **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.



- **Designated Postal Operator** Any governmental or non-governmental entity officially designated by a Universal Postal Union (UPU) member country to operate postal services and to fulfill the related obligations arising from the acts of the UPU Convention on its territory.
- **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 provisions of these requirements.
- **Flight crew member** means a licensed crew member charged with duties essential to the operation of an aircraft during a flight duty period.
- **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.
- **Safety management system (SMS)** means a systematic approach to managing safety, including the necessary organizational structures, accountabilities, policies and procedures
- **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 Destination** means the State in the territory of which the consignment is finally to be unloaded from an aircraft
 - **State of Origin** means the State in the territory of which the consignment is first to be 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 Instructions** means the Technical Instructions for The Safe Transport of Dangerous Goods by Air issued by the International Civil Aviation Organization (ICAO).
 - **UN Number** means the four digit number assigned by the United Nations Committee of Experts on the Transport of Dangerous Goods and on the globally Harmonized System of Classification and Labelling of Chemicals to identify an article or substance or a particular group of articles or substances.
 - **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.



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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 Instructions.
- 3.2 The dangerous goods described hereunder shall be forbidden on aircraft unless exempted by CAA of 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 Instructions 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 operator 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 Instructions;
 - i. 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 permission in writing granted by Nepal Government.
 - ii. 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 consignor or the consignee, as the case may be, has written consent of the Nepal Government to carry such goods.
 - iii. 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 the person designated by the Director General 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 as provided for in the Technical Instructions.

- 3.5 CAA of Nepal shall take necessary measures for compliance with the detailed provisions contained in the Technical Instructions for the Safe Transport of Dangerous Goods by Air as amended from time to time.
- 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, except when consigned by the operators, they may be carried in containers specially designed for their transport, provided such containers are capable of meeting at least the requirements for the packaging as permitted in the Technical Instructions for items packed in the containers.
- 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, labelling, acceptance, handling, loading, unloading, storage, transportation or any other process connected directly or indirectly 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 on the matter.



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Chapter - Five

Classification of Dangerous Goods

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

The detailed definitions of the classes and divisions for dangerous goods shall be in accordance with the Technical Instructions and shall identify the hazards associated with the transport of dangerous goods by air as recommended by the UN Committee of Experts on the Transport of Dangerous Goods.



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Chapter - Six

Documentation

- 6.1 Except as otherwise specified in these Regulations, a “Shipper's Declaration for Dangerous Goods” form and an “Air Waybill” must be completed for each consignment of dangerous goods in a manner prescribed in the Technical Instructions unless it is stated that a Shipper’s Declaration is not required.

Besides, the consignment of dangerous goods must be accompanied by other required documents and certificates as appropriate.

English should be used to complete the form and the air waybill.



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Chapter - Seven

Packaging of Dangerous Goods

- 7.1 Dangerous goods shall be packed in accordance with the requirements specified in the Technical Instructions in addition to the provisions of this chapter.
- 7.2 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.
- 7.3 Packagings 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,
- 7.4 Packagings 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.
 - 7.4.1 The packagings shall meet the material and construction specifications contained in the Technical Instructions
 - 7.4.2 Packagings shall be tested in accordance with the provisions of the Technical Instructions.
 - 7.4.3 Packagings for which retention of a liquid is a basic function shall be capable of withstanding, without leaking, the pressure stated in the Technical Instructions.
- 7.5 Inner packagings 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 within the outer packaging(s) during normal conditions of air transport. The cushioning and absorbent materials shall not react dangerously with the contents of the packagings.



7.6 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 un-cleaned empty packaging shall be transported by air following the same procedures as laid down for the transport of the dangerous goods for which such packaging has been used earlier.

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



Chapter - Eight

Labeling and Marking

8.1 Labeling

Unless otherwise provided for in the Technical Instructions, each package of dangerous goods shall be labelled with the appropriate labels in accordance with the requirements specified in Technical Instructions.

8.2 Marking

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

8.2.2 Same as otherwise provided in the Technical Instructions, each packaging manufactured to a the specifications of the Technical Instructions shall be marked in accordance with the appropriate provisions of the Technical Instructions and no other packaging shall be so marked unless the packaging meets the appropriate packaging specifications contained in the Technical Instructions.

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



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Chapter - Nine

Shipper's Responsibilities

- 9.1 No shipper or his/her agent shall offer any package or overpack 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.
- 9.2 Unless otherwise provided for 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 that contain the information required by the Technical Instructions.
- 9.3 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 in accordance with the relevant regulations of the Technical Instructions.
- 9.4 English shall also be used in the dangerous goods transport document.



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Chapter - Ten

Operator's Responsibilities

- 10.1 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.
- 10.2 The operator shall ensure that an acceptance check-list as required by the Technical Instructions has been developed and is being used by the employees as an aid to comply with the provisions of 10.1 above.
- 10.3 Packages and overpacks containing dangerous goods and freight containers containing radioactive materials shall be inspected for evidence of leakage or damage before loading on an aircraft or into a unit load device and such packages, overpacks or freight containers shall be loaded and stowed on an aircraft in accordance with the requirements specified in the Technical Instructions.
- 10.4 The operator shall ensure that no leaking or damaged packages, over packs or freight containers containing dangerous goods shall be loaded on an aircraft
- 10.5 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.
- 10.6 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 consignment is in a proper condition for transport by air and that no other package has been contaminated.
- 10.7 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.



- 10.8 No dangerous goods shall be carried in an aircraft cabin occupied by passengers or on the flight deck of an aircraft, except as permitted by the Technical Instructions.
- 10.9 Any hazardous contamination found on an aircraft as a result of leakage or damage to dangerous goods shall be removed without delay.
- 10.10 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.
- 10.11 Packages 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.
- 10.12 Reserved .
- 10.13 Packages 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 provisions specified in the Technical Instructions.
- 10.14 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 packages containing radioactive materials, the securing shall be adequate to ensure that the separation requirements of 10.13 are met at all times.
- 10.15 Packages of dangerous goods bearing the "Cargo Aircraft only" label shall be loaded in cargo aircraft only and in accordance with the provisions of the Technical Instructions.
- 10.16 Carriage of Company Materials (COMAT)
- COMAT** contains materials many of which are regulated as hazardous and are treated as dangerous goods under international regulations. Thus, the operators must specify items that are subject to the regulations of the Technical Instructions.
- Dangerous Goods which are consumed or used in the aircraft, including expendable items of replacement, are fully regulated and subject to all applicable provisions of the Technical Regulations and requires classification, description, marking, labeling, packaging, handling,



stowage, and securing of such items and training of all category of staff of the airlines.

Only an airline with authorization from CAAN to transport dangerous goods may transport its own materials as COMAT. If an airline does not have an authorization, it shall offer its COMAT to another carrier who has authorization to transport it as cargo.



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Chapter - Eleven

Provision of Information

- 11.1 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 and shall have the procedures to retain the NOTOC on ground and readily accessible to the aerodromes of the last departure and next scheduled arrival for each of its flights.
- 11.2 The operator shall provide such information in their Operations Manual or Dangerous Goods manual so as to enable the flight crew members 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.
- 11.3 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 for in the Technical Instructions.
- 11.4 Operators, shippers or other organizations involved in the transport of dangerous goods by air shall provide such information to their personnel 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.
- 11.5 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 for in the Technical Instructions.
- 11.6 In the event of aircraft accident, or a serious incident where dangerous goods carried as cargo are involved, the operator of the aircraft carrying dangerous goods as cargo shall provide information, without delay, to the appropriate airport authorities and to emergency services responding to the accident or serious incident, 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.



- 11.7 In the event of an aircraft incident, the operator of an aircraft carrying dangerous goods as cargo shall provide information without delay, to the appropriate 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 - Twelve

Compliance

12.1 Inspection System

- 12.1.1 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.
- 12.1.2 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 cooperate in exercising his/her powers or carrying out his/her duties under these requirements.
- 12.1.3 The Flight Safety Standards Department shall establish inspection, surveillance and enforcement procedures for all entities such as Shippers, Operators, Freight Forwarders, warehouse companies, Postal Authorities etc. involved in air transport of dangerous goods with a view to achieving compliance with the regulations of the Technical Instructions.

An Annual Surveillance and Inspection Program shall be developed and implemented to inspect aspects related with the transport of dangerous goods i.e., inspection of dangerous goods consignments prepared, offered, accepted or transported by the entities concerned and shall also investigate alleged violations and shall be penalised as per 12.3.

12.2 Cooperation between States

The Civil Aviation Authority of Nepal will participate in cooperative efforts with other States to eliminate violations of dangerous goods regulations including coordination of investigations and enforcement actions; exchanging information on a regulated party's compliance history; joint inspections and other technical liaisons, exchange of technical staff, and joint meetings and conferences.

12.3 Penalties

- 12.3.1 Violations of these requirements are liable to penalty. Penalties for violation shall be as per the Aviation Enforcement Procedures Manual.



12.3.2 The Civil Aviation Authority of Nepal will initiate appropriate action to achieve compliance with the Dangerous Goods Regulations, including the prescription of appropriate penalties as per the Aviation Enforcement Procedures Manual for violations whenever such information is received from other contracting states.

12.4 Dangerous Goods by Mail

The Civil Aviation Authority will establish procedures to control the introduction of dangerous goods into air transport through the postal services In accordance with the Universal Postal Union (UPU) Convention. CAAN shall ensure that the provisions are complied with in relation to the transport of dangerous goods by air as per the regulations of the Technical Instructions.





Chapter - Thirteen

Dangerous Good Accident and Incidents

- 13.1 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.
- 13.2 The report under requirement 13.1 shall, in addition to any other relevant information, contain the following information. A Specimen of the Dangerous Goods Occurrence Report Form is given in Figure 13-1.
- 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, quantity 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 the Director General.



- 13.3 On receipt of the report under requirement 13.1, 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.
- 13.4 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 has occurred 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.
- 13.5 With the aim of preventing the recurrence of instances of undeclared or mis-declared dangerous goods in cargo and baggage, CAA of Nepal shall establish the procedures for investigation and compilation of information concerning such occurrences which has occurred 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.
- 13.6 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 have occurred in storage and handling facilities. Reports on such accidents and incidents shall, in addition to any other relevant information, be made in accordance with Figure 13-2.



Figure 13-1 Dangerous Goods Occurrence Report

1. Name of the Operator:		2. Date of occurrence:		3. Time of occurrence:	
4. Flight date:			5. Flight no:		
6. Departure airport:			7. Destination airport		
8. Aircraft type:			9. Aircraft registration:		
10. Location of occurrence:			11. Origin of the goods:		
12. Description of the occurrence, including details of injury, damage, etc (if necessary continue on a separate leaf):					
13. Proper shipping name (including the technical name):				14. UN/ID No	
15. Class/division		16. Subsidiary risk(s):	17. Packing group	18. Category, (class 7 only)	
19. Type of packaging:		20. Packaging specification marking:	21. No of packages:	22. Quantity (or transport index, if applicable):	
23. Air Waybill Number					
24. Reference no of courier pouch, baggage tag, or passenger ticket:					
25. Name and address of shipper, agent, passenger, etc:					
26. Other relevant information (including suspected cause, any action taken):					
27. Name and title of person making report:			28. Telephone no:		
29. Company:			30. Reporters ref:		
31. Address:			32. Date/ Signature:		
Description of the occurrence (continuation):					



NOTES:

1. All types of dangerous goods occurrence must be reported, irrespective of whether the dangerous goods are contained in cargo, mail or baggage.
2. A dangerous goods accident is an occurrence associated with and related to the transport of dangerous goods which results in fatal or serious injury to a person or major property damage. For this purpose serious injury is an injury which is sustained by a person in an accident and which: (a) requires hospitalisation for more than 48 hours, commencing within 7 days from the date the injury was received; or (b) results in a fracture of any bones (except simple fractures of fingers, toes or nose); or (c) involves lacerations which cause severe haemorrhage, nerve, muscle 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 5% of the body surface; or (f) involves verified exposure to infectious substances or injurious radiation. A dangerous goods accident may also be an aircraft accident; in which case the normal procedure for reporting of air accidents must be followed.
3. A dangerous goods incident is an occurrence, other than a dangerous goods accident, associated with and related to the transport of dangerous goods, not necessarily occurring on board an aircraft, which results in injury to a person, property 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 dangerous goods which seriously jeopardises the aircraft or its occupants is also deemed to constitute a dangerous goods incident.
4. This form should also be used to report any occasion when undeclared or misdeclared dangerous goods are discovered in cargo, mail or unaccompanied baggage or when accompanied baggage contains dangerous goods which passengers or crew are not permitted to take on aircraft.
5. An initial report should be dispatched within 72 hours of the occurrence, to the Authority of the State (a) of the operator; and b) in which the incident occurred, unless exceptional circumstances prevent this. This occurrence report form, duly completed, must be sent as soon as possible, even if all the information is not available.
6. Copies of all relevant documents and any photographs should be attached to this report.
7. Providing it is safe to do so, all dangerous goods, packaging, documents, etc, relating to the occurrence must be retained until after the initial report has been sent to the Dangerous Goods State Authority and they have indicated whether or not these should continue to be retained.



Figure 13-2 Dangerous Goods Occurrence Report- storage and handling facilities

1. Name of the Operator/Shipper/Freight Forwarder		2. Date of occurrence:		3. Time of occurrence:	
4. Location of occurrence:			5. Origin of the goods:		
6. Description of the occurrence, including details of injury, damage, etc (if necessary continue on a separate leaf):					
7. Proper shipping name (including the technical name):				8. UN/ID No	
9. Class/division		10. Subsidiary risk(s):	11. Packing group	12. Category, (class 7 only)	
13. Type of packaging:		14. Packaging specification marking:	15. No of packages:	16. Quantity (or transport index, if applicable):	
17. Air Waybill Number / Reference no of courier pouch/ Postal mail					
18. Name and address of shipper, Freight Forwarder, agent etc:					
19. Other relevant information (including suspected cause, any action taken):					
20. Name and title of person making report:			21. Telephone no:		
22. Company:			23. Reporters ref:		
24. Address:			25. Date/ Signature:		
Description of the occurrence (continuation):					



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Chapter - Fourteen

Establishment of Training Programme

- 14.1 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.
- 14.2 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 or mail.
 - 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
 - vii. Agencies engaged in the security screening of passengers and crew and their baggage and/or cargo or mail; and
 - viii. Designated Postal Operators
- 14.3 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
- 14.4 Training shall be provided or verified upon the employment of a person in a position involving the transport of dangerous good by air and recurrent training shall take place within 24 months of previous training and ensure knowledge is current.



-
- 14.5 The training programmes established and maintained by or on behalf of the operators and on behalf of agencies other than operators shall be subject to review and approval by the Director General.

Even if the operator does not carry dangerous goods as cargo, there is still a need for dangerous goods training for both operational and ground staff dealing with cargo, passengers and their baggage. As such, the staff of operators belonging to categories 13,14,15,16 and 17 shall be required to be trained whether or not such operators carry dangerous goods.

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

The Instructor delivering Dangerous Goods Regulations training courses must be holding Ground Instructor Authorisation from CAAN, and must also hold copies of the Lesson Plan accepted by the CAAN for the said training programme during the delivery of the course (s).

14.7 Standards of Training, Examination and Certification

- 14.7.1 At the end of a training programme, the participants must successfully pass a comprehensive written examination to test their understanding of the subject.
- 14.7.2 The participant must have 100% attendance for being eligible to appear in the examination.
- 14.7.3 The examination must be so designed that it shall enable the participant to demonstrate an understanding of all the subjects covered. The difficulty level of the questions for the examination shall test the ability of the participant to perform his/her job functions in compliance with the DGHR of CAAN and the Technical Instructions.
- 14.7.4 The participant must secure 80% marks to pass the examination. Those who successfully complete the course shall be issued a certificate to this effect.
- 14.7.5 Those who fail to secure 80% marks in the examination may be allowed to reappear in the test within a period of three months of the training after attending refresher training.
- 14.7.6 The training course must be limited to one category of personnel. However, certain categories of personnel may be mixed in the training



programs if there is commonality in the course contents for these categories as specified in the Technical Instructions.

- 14.7.7 The participants for recurrent training must not be mixed with those for the initial training.
- 14.7.8 The FSSD, CAAN must be notified at least ten days prior to the commencement of the course whenever any training course is planned.
- 14.7.9 The ideal size of participants of a dangerous goods course should be 10 to 15. However, the maximum number should not exceed 20 in any case.

14.8 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 retained for a minimum period of 36 months from the most recent training completion date and be made available to the Flight Safety Standards Department, CAAN after the completion of every initial and/or recurrent training program.

14.9 Instructors' Qualifications

- 14.9.1 Qualifications and Eligibility for Ground Instructor Authorisation
 - i Bachelor's Degree in any Faculty from a recognized university.
 - ii. Valid certificate of successful completion of Dangerous Goods Regulations training program applicable to category 6 of Table 1-4 of Technical Instructions of ICAO or IATA DGR regulations.
 - iii. Completed a course in Instructor Techniques.
 - iv At least three years working experience with an aviation organization.
 - v. In order to receive "Ground Instructor Authorisation" for Dangerous Goods Instructor to conduct the DGR Course, the applicant shall submit all relevant documents showing his/her qualification and experience to Flight Safety Standards Department, Civil Aviation Authority of Nepal (CAAN) for evaluation.

- vi. The applicant shall submit the Training Program Syllabus, the Lesson Plan, the training materials to be used during course delivery, the types of review questions and the type of questions for final examination of the Dangerous Goods Regulations training course.
- vii. After evaluation of the documents submitted accordingly, applicant shall conduct a courses under the supervision and observation of The CAAN within a period of 24 months from the date of completion of the ICAO or IATA DGR course or till the currency of the DGR training is valid..
- viii. Upon completion of the courses, the CAAN will issue an authorisation for the applicant valid for 60 months provided that the applicant meets the renewal requirements of 14.9.2..
- ix. The Applicant shall submit a Fee Voucher as per CAR 2058

14.9.2 Renewal Requirements for Ground Instructor Authorisation

- i. Instructors delivering initial and recurrent dangerous goods training programmes must deliver such a course at least every 12 months in the presence of CAAN observer.
- ii. In the absence of the above (i), must attend and complete successfully Recurrent Dangerous Goods Regulations training program applicable to category 6 of Table 1-4 of Technical Instructions of ICAO or IATA after 24 months of the previous training.
- iii. CAAN may suspend, revoke or cancel, the Ground Instructor Authorisation if found violating the standards or requirements of the CAAN and/or the ICAO Technical Instructions.
- iv. The Applicant shall submit a Fee Voucher as per CAR 2058.

14.9.3 The instructor(s) delivering the DGR training must have hands-on experience, preferably of 2 years in the areas which he/she is instructing.



Table 14.1 Content of training courses for operators carrying dangerous goods as cargo or mail

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	X	X
General requirements for shippers	X		X			X						
Classification	X	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.

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 14.2 Content of training courses for operators not carrying dangerous goods as cargo or mail**

Minimum aspects of transport of dangerous goods by air with which the staff should be familiar	Categories of Staff				
	13	14	15	16	17
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

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)



Training courses for staff of designated postal operators

The Universal Postal Union Convention does not permit the carriage of dangerous goods in mail except as specified in the Technical Instructions.

The postal operators accepting dangerous goods in mail for air transport must obtain approval from the Civil Aviation Authority of Nepal before engaging in the acceptance and transport of dangerous goods in post mail.

The minimum training curricula for the staff of designated postal operator will be as follows:

Table 14.3 Content of training courses for staff of designated postal operators

Aspects of transport of dangerous goods by air with which they should be familiar, as a minimum	Designated postal operators		
	A	B	C
General Philosophy	x	x	x
Limitations	x	x	x
General requirements for shippers	x		
Classification	x		
List of dangerous goods	x		
Packing requirements	x		
Labelling and marking	x	x	x
Dangerous goods transport documents and other relevant documentation	x	x	
Acceptance of the dangerous goods listed in 1:2.3.2 of TI	x		
Recognition of Undeclared Dangerous Goods	x	x	x
Storage and loading procedures			x
Provisions for passengers and crew	x	x	x
Emergency procedures	x	x	x

CATEGORIES

- A — Staff of designated postal operators involved in accepting mail containing dangerous goods
- B — Staff of designated postal operators involved in processing mail (other than dangerous goods)
- C — Staff of designated postal operators involved in the handling, storage and loading of mail



14.10 Training Requirements

Individuals involved in the air transport require understanding of the Dangerous Goods Regulations to carry out their responsibilities. As such, they must be properly trained on the aspects of dangerous goods as per the nature of their job function. Both initial and recurrent training programmes have to be properly planned and maintained for all such persons involved in the transport chain.

The Recurrent training must be conducted within 24 months of previous training to update the knowledge of the concerned personnel.

A written test must be delivered after the completion of each Dangerous Goods training to verify understanding of the regulations and to confirm successful completion of the test and a record of the training must be maintained as in 14.8.



14.11 Duration of the Training Programs

Categories	Duration (Days)	
	Initial	Recurrent
Category 1 - Shippers and persons undertaking the responsibilities of shippers Category 3 - Staff of freight forwarders involved in processing dangerous goods Category 6 - Operator's and ground handling agent's staff accepting dangerous goods	5 days (40 hours)	3 days (24 hours)
Category 2 - Packers	4 days (32 hours)	3 days (24 hours)
Category 4 - Staff of freight forwarders involved in processing cargo or mail (other than dangerous goods) Category 5 - Staff of freight forwarders involved in the handling, storage and loading of cargo or mail Category 7 and 13 - Operator's and ground handling agent's staff accepting cargo or mail (other than dangerous goods) Category 8 and 14 - Operator's and ground handling agent's staff involved in the handling, storage and loading of cargo or mail and baggage Category 9 and 15 - Passenger handling staff Category 10 and 16 - Flight crew members, load masters, load planners and flight operations officers/flight dispatchers Category 11 and 17 - Crew members (other than flight crew members) Category 12 - Security staff who are involved with the screening of passengers and crew and their baggage and cargo or mail,	2 days (16 hours)	1 day (8 hours)



Chapter - Fifteen

Direction by Director General

- 15.1 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.



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Chapter - Sixteen

General Power of Exempt

- 16.1 Civil Aviation Authority of Nepal may by general or special order in writing exempt any aircraft or any person from the provisions of these requirements either wholly or partially subject to such conditions, if any, as may be specified in that order to achieve an overall level of safety in transport which is at least equivalent to the level of safety provided for in the ICAO Technical Instructions.



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Chapter - Seventeen

Cancellation or Suspension of License, Certificate and Approval

- 17.1 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 acts and rules.



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Chapter - Eighteen

Dangerous Goods Emergency Response

- 18.1 The operator must ensure that for consignments for which a dangerous goods transport document is required by these Instructions, appropriate information is immediately available at all times for use in emergency response to accidents and incidents involving dangerous goods in air transport. The information must be available to the pilot-in-command and can be provided by the ICAO document “Emergency Response Guidance for Aircraft Incidents Involving Dangerous Goods- Doc 9481” or by any other documents which provides similar information concerning the dangerous goods on board.



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Chapter - Nineteen

Dangerous Goods Security

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



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Chapter - Twenty

Helicopter Operation

Due to the difference in type of operations carried out by helicopters compared with aeroplanes, there may be circumstances when full provisions of the Technical Instructions are not appropriate or necessary due to the operations involving unmanned sites, remote locations, mountainous areas or construction sites, etc. In such circumstances and when appropriate, the CAAN may grant an approval to the Helicopter Operators for the carriage of dangerous goods without fulfilling all of the normal requirements of the Technical Instructions.

(Refer Appendix - 8A and Appendix- 8B for detail information)



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Appendix 1

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- 2

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.

Flight Safety Standards 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 monitoring 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. Annually
- b. Surprise audit

vii. Audit Team

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



Appendix- 3

Safety Audit Checklist

A. 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"/>	



- 7. Notices prominently displayed to warn the passengers about the types of goods which are prohibited to transport on board the aircraft
- 8. Ramp handling staff familiar with the provisions of Inspection, loading & unloading, stowage and DG handling procedures
- 9. Information about DG handling procedures included in Passenger Handling manual

III. 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 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. <u>Cabin 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. Cabin Crew Manual includes DG handling and Emergency response procedures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Comments/observations:

Signature of DG Inspector:

Signature of Operator's Authorized staff

Date:

Date:



Appendix- 3 Safety Audit Checklist

Safety Audit Checklist for Shippers/ Freight Forwarders/ Designated Postal Operator regarding Dangerous Goods

Name :

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. Dangerous Goods Handling Manual	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Comments / observations:

Signature of DG Inspector:

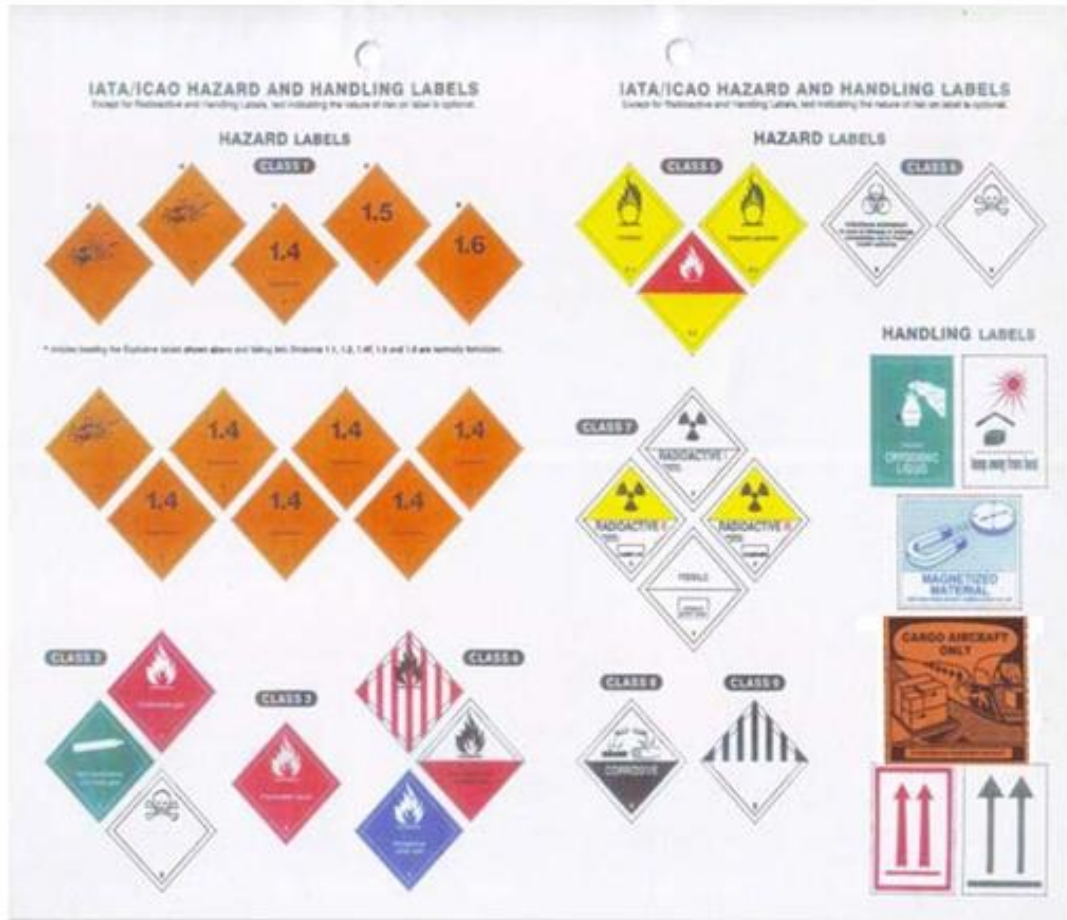
Signature of Auditee's Authorized staff

Date:

Date:

Appendix- 4

Hazard and Handling Labels





APPENDIX 5A

**APPLICATION FOR ISSUANCE/RENEWAL OF DANGEROUS GOODS
OPERATOR CERTIFICATION**

a. Application Form

Part. I

Name of operator:

Type of operation:

Mailing address:

Telephone:

FAX:

Part. II

Submission for:

Issue

Renewal

Does the operator hold or has it previously held a
CAAN DG Acceptance Certificate?

Yes

No

If Yes, specify Certificate No.

Date of issue:

(dd/mm/yy)

If So, has the certificate ever been suspended or revoked?

Yes

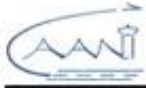
No

If Yes, give reasons:

Have flight crewmembers/Acceptance staff/load planners etc. have received DG
training and is such training current?

Yes

No



APPENDIX 5A

**APPLICATION FOR ISSUANCE/RENEWAL OF DANGEROUS GOODS
OPERATOR CERTIFICATION**

Part. III

I hereby certify that the above information is true and correct and that
..... (name of operator) will
strictly adhere to the Regulations of ICAO Technical Instructions and the Civil
Aviation Authority of Nepal.

Name of responsible personnel:

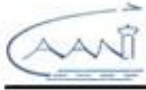
Designation:

Signature:

Office Stamp/Date:

Notes:

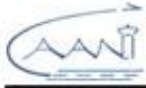
1. The validity of the DG Carry certificate of Operator will be as endorsed in the AOC.
2. Non-compliance with ICAO TI / IATA DGR and CAAN requirements will automatically lead to the cancellation of the DG Carry Certificate.



APPENDIX 5A

APPLICATION FOR ISSUANCE/RENEWAL OF DANGEROUS GOODS OPERATOR CERTIFICATION

- b. Documents and information to be provided by the Operator while applying for DG Carry endorsement in AOC.
1. Current Edition of IATA Dangerous Goods Regulation Manual available for use by staff at all times, if and when required.
 2. Approved Danger Goods Handling Manual.
 3. DG storage facility
 4. Company procedures for handling dangerous goods.
 5. Minimum 2 staff who have successfully completed Dangerous Goods Regulations course Category 6 from ICAO, IATA or IATA Accredited Institutes, having a minimum of three years of Cargo handling experience with the job responsibilities for handling dangerous goods also.
 6. Minimum 2 staff that have completed IATA Dangerous Goods Regulations course Category 6 from ICAO, IATA or IATA Accredited Institutes must continuously be involved in cargo handling.
 7. Procedures for developing more staff with the job responsibilities of handling dangerous goods based on the activities related to dangerous goods transport.
 8. Currency of Certificate of staff responsible for handling Dangerous Goods.
 9. Payment of applicable fees and charges.



APPENDIX 5B

APPLICATION FOR ISSUANCE/RENEWAL OF DANGEROUS GOODS SHIPPER CERTIFICATION

a. Application Form

Part. I

Name of Shipper:

Type of operation:

Mailing address:

Telephone:

FAX:

E-mail address

Part. II

Submission for:

Issue

Renewal

Does the Shipper hold or has it previously held a CAAN DG Handling Certificate?

Yes

No

If Yes, specify Certificate No.

Date of issue:

(dd/mm/yy)

If So, has the certificate ever been suspended or revoked?

Yes

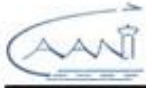
No

If Yes, give reasons:

Have DG Handling staff have received DG training and is such training current?

Yes

No



APPENDIX 5B

APPLICATION FOR ISSUANCE/RENEWAL OF DANGEROUS GOODS SHIPPER CERTIFICATION

Part. III

I hereby certify that the above information is true and correct and that (name of Shipper) will strictly adhere to the Regulations of ICAO Technical Instructions and the Civil Aviation Authority of Nepal.

Name of responsible personnel:

Designation:

Signature:

Office Stamp/Date:

Notes:

1. The validity of the DG handling certificate of Shipper will be as endorsed in the AOC.
2. Non-compliance with ICAO TI / IATA DGR and CAAN requirements will automatically lead to the cancellation of the DG handling certificate.



APPENDIX 5B

APPLICATION FOR ISSUANCE/RENEWAL OF DANGEROUS GOODS SHIPPER CERTIFICATION

b. Documents and information to be provided by the Shipper while applying for DG Handling certificate.

1. Current Edition of IATA Dangerous Goods Regulation Manual available for use by staff at all times, if and when required.
2. Approved Danger Goods Handling Manual.
3. DG storage facility
4. Company procedures for handling dangerous goods.
5. Minimum 2 staff who have successfully completed Dangerous Goods Regulations course Category 6 from ICAO, IATA or IATA Accredited Institutes, having a minimum of three years of Cargo handling experience with the job responsibilities for handling dangerous goods also.
- 6 Minimum 2 staff who have completed IATA Dangerous Goods Regulations course Category 6 from ICAO, IATA or IATA Accredited Institutes must continuously be involved in cargo handling.
- 7 Procedures for developing more staff with the job responsibilities of handling dangerous goods based on the activities related to dangerous goods transport.
- 8 Currency of Certificate of staff responsible for handling Dangerous Goods.
- 9 Payment of applicable fees and charges.



APPENDIX 5C

APPLICATION FOR ISSUANCE/RENEWAL OF DANGEROUS GOODS DESIGNATED POSTAL OPERATOR CERTIFICATION

a. Application Form

Part. I

Name of designated postal operator:

Type of operation:

Mailing address:

Telephone:

FAX:

Part. II

<i>Submission for:</i>	<i>Issue</i>	<i>Renewal</i>
------------------------	--------------	----------------

Does the designated postal operator hold or has it previously held a CAAN DG Handling Certificate? Yes No

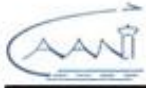
If Yes, specify Certificate No.

Date of issue: (dd/mm/yy)

If So, has the certificate ever been suspended or revoked? Yes No

If Yes, give reasons:

Have the Acceptance/Handling/ Storage staff etc. has received DG training and is such training current? Yes No



APPENDIX 5C

**APPLICATION FOR ISSUANCE/RENEWAL OF DANGEROUS GOODS
DESIGNATED POSTAL OPERATOR CERTIFICATION**

Part. III

I hereby certify that the above information is true and correct and that (name of designated postal operator) will strictly adhere to the Regulations of ICAO Technical Instructions and the Civil Aviation Authority of Nepal.

Name of responsible personnel:

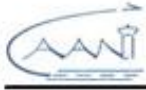
Designation:

Signature:

Office Stamp/Date:

Notes:

1. The validity of the DG acceptance certificate of designated postal operator will be as specified by the CAAN.
2. Non-compliance with ICAO TI / IATA DGR and CAAN requirements will automatically lead to the cancellation of the DG acceptance Certificate.

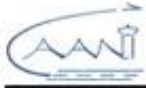


APPENDIX 5C

**APPLICATION FOR ISSUANCE/RENEWAL OF DANGEROUS GOODS
DESIGNATED POSTAL OPERATOR CERTIFICATION**

b. Documents and information to be provided by the Designated Postal Operator while applying for DG Handling certificate.

1. Current Edition of IATA Dangerous Goods Regulation Manual available for use by staff at all times, if and when required.
2. Approved Dangerous Goods Handling Manual.
3. Dangerous goods storage facility
4. Company procedures for handling dangerous goods emergencies
5. Minimum 2 staff that have successfully completed Dangerous Goods Regulations course Category 6 from ICAO, IATA or IATA Accredited Institutes.
6. Minimum 2 staff that have completed IATA Dangerous Goods Regulations course Category 6 from ICAO, IATA or IATA Accredited Institutes and must continuously be involved in accepting mail containing dangerous goods.
7. Procedures for developing more staff with the job responsibilities of accepting and handling dangerous goods based on the activities related to dangerous goods transport.
8. Currency of Certificate of staff responsible for handling Dangerous Goods.
9. Payment of applicable fees and charges.



APPENDIX 6

**Flight Safety Standards Department
Civil Aviation Authority of Nepal
Sinamangal, Kathmandu**

Checklist for DG Carry endorsement in Operations Specifications in AOC /Shipper Certification (Issue / Renew)

Name of the Operator:	Certificate number:	State Inspector:
Certificate type:	<input type="checkbox"/> Carrying dangerous goods as cargo <input type="checkbox"/> Not carrying dangerous goods as cargo	<input type="checkbox"/> Passenger <input type="checkbox"/> All cargo
Reviewed by:	Date:	Recommend approval by: <input type="checkbox"/> Yes <input type="checkbox"/> No

Questions:

S. No	Statements	Remarks
1.	Availability of current edition of Dangerous Goods Regulations Manual (IATA/ICAO)	<input type="checkbox"/> Yes <input type="checkbox"/> No, explain <input type="checkbox"/> N/A
2.	Has the Company DG Handling Manual, including DG Training program with syllabus been approved by CAAN?	<input type="checkbox"/> Yes <input type="checkbox"/> No, explain <input type="checkbox"/> N/A
3.	Has the Company developed DG handling procedures and obtained approval of CAAN?	<input type="checkbox"/> Yes <input type="checkbox"/> No, explain <input type="checkbox"/> N/A
4.	Does the Dangerous Goods Manual contain procedures and information regarding acceptance?	<input type="checkbox"/> Yes <input type="checkbox"/> No, explain <input type="checkbox"/> N/A
5.	Does the Dangerous Goods Manual contain procedures and information regarding rejection?	<input type="checkbox"/> Yes <input type="checkbox"/> No, explain <input type="checkbox"/> N/A
6.	Does the Dangerous Goods Manual contain procedures and information regarding handling?	<input type="checkbox"/> Yes <input type="checkbox"/> No, explain <input type="checkbox"/> N/A
7.	Does the Dangerous Goods Manual contain procedures and information regarding storage prior to transport?	<input type="checkbox"/> Yes <input type="checkbox"/> No, explain <input type="checkbox"/> N/A
8.	Does the Dangerous Goods Manual contain procedures and information regarding packaging of spares and company material classified as dangerous goods?	<input type="checkbox"/> Yes <input type="checkbox"/> No, explain <input type="checkbox"/> N/A

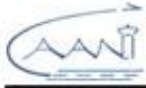


S. No	Statements	Remarks
9.	Does the Dangerous Goods Manual contain procedures and information regarding loading?	<input type="checkbox"/> Yes <input type="checkbox"/> No, explain <input type="checkbox"/> N/A
10.	Does the Dangerous Goods Manual contain procedures sufficient to assist persons in identifying packages that are marked or labeled as dangerous goods?	<input type="checkbox"/> Yes <input type="checkbox"/> No, explain <input type="checkbox"/> N/A
11	Does the Dangerous Goods Manual contain procedures for complying with the reporting requirements of the Technical Instructions?	<input type="checkbox"/> Yes <input type="checkbox"/> No, explain <input type="checkbox"/> N/A
12	Does the Dangerous Goods Manual contain responsibilities of the operator for maintaining the records of initial and recurrent dangerous goods training of its staff within the three preceding years?	<input type="checkbox"/> Yes <input type="checkbox"/> No, explain <input type="checkbox"/> N/A
13	Does the Training Record of the operator contain: 1. Name 2. Most recent training completion date 3. Description , copy, or reference to training material 4. Name and address of the organization providing the training 5. Evidence that a test was satisfactorily completed	Yes / No <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
14.	Has the Operator developed forms, formats, documents relevant for the transport of dangerous goods?	<input type="checkbox"/> Yes <input type="checkbox"/> No, explain <input type="checkbox"/> N/A
15.	Number of staff who have successfully completed Dangerous Goods Regulations course Category 6 from ICAO, IATA or IATA Accredited Institutes	<input type="checkbox"/> Yes <input type="checkbox"/> No, explain
16.	Does the staff holding successful completion certificate of ICAO/ IATA have a minimum of three years of Cargo handling experience.	<input type="checkbox"/> Yes <input type="checkbox"/> No, explain <input type="checkbox"/> N/A
17.	Currency of training certificates of staff responsible for handling Dangerous Goods	<input type="checkbox"/> Yes <input type="checkbox"/> No, explain <input type="checkbox"/> N/A
18.	Does the company has procedures for developing more staff in accordance with the increase in dangerous goods transport activities	<input type="checkbox"/> Yes <input type="checkbox"/> No, explain

Comments:

Signature of DG Inspector: _____

Date: _____



APPENDIX 7

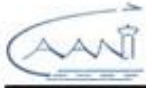
**Flight Safety Standards Department
Civil Aviation Authority of Nepal
Sinamangal, Kathmandu**

**Checklist for DG NO Carry endorsement in Operations Specifications in AOC
(Issue/Renew)**

Name of the Operator:	Certificate number:	State Inspector:	
Certificate type:	<input type="checkbox"/> Carrying dangerous goods as cargo <input type="checkbox"/> Not carrying dangerous goods as cargo	<input type="checkbox"/> Passenger <input type="checkbox"/> All cargo	
Reviewed by:	Date:	Recommend approval by:	Approved <input type="checkbox"/> Yes <input type="checkbox"/> No

Questions:

S. No	Statements	Remarks
1	Availability of current edition of Dangerous Goods Regulations Manual (IATA/ICAO)	<input type="checkbox"/> Yes <input type="checkbox"/> No, explain <input type="checkbox"/> N/A
2	Has the Company DG Handling Manual, including DG Training program with syllabus been approved by CAAN?	<input type="checkbox"/> Yes <input type="checkbox"/> No, explain <input type="checkbox"/> N/A
3	Does the Dangerous Goods Manual contain procedures and information regarding rejection?	<input type="checkbox"/> Yes <input type="checkbox"/> No, explain <input type="checkbox"/> N/A
4	Does the Dangerous Goods Manual contain procedures and information regarding packaging of spares and company material classified as dangerous goods?	<input type="checkbox"/> Yes <input type="checkbox"/> No, explain <input type="checkbox"/> N/A
5	Does the Dangerous Goods Manual contain procedures sufficient to assist persons in identifying packages that are marked or labeled as dangerous goods?	<input type="checkbox"/> Yes <input type="checkbox"/> No, explain <input type="checkbox"/> N/A
6	Does the Dangerous Goods Manual contain procedures sufficient to assist persons in identifying packages that may contain undeclared dangerous goods?	<input type="checkbox"/> Yes <input type="checkbox"/> No, explain <input type="checkbox"/> N/A
S. No	Statements	Remarks



CIVIL AVIATION AUTHORITY OF NEPAL

7	Does the Dangerous Goods Manual contain procedures sufficient to assist persons complying with undeclared or misdeclared reporting requirements?	<input type="checkbox"/> Yes <input type="checkbox"/> No, explain <input type="checkbox"/> N/A
8	Does the Dangerous Goods Manual contain procedures for complying with the reporting requirements?	<input type="checkbox"/> Yes <input type="checkbox"/> No, explain <input type="checkbox"/> N/A
9	Does the Dangerous Goods Manual contain responsibilities of the operator for maintaining the records of initial and recurrent dangerous goods training of its staff within three preceding years?	<input type="checkbox"/> Yes <input type="checkbox"/> No, explain <input type="checkbox"/> N/A
10	Does the Training Record of the operator contain: 1. Name 2. Most recent training completion date 3. Description , copy, or reference to training material 4. Name and address of the organization providing the training 5. Evidence that a test was satisfactorily completed	Yes / No <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

Comments:

Signature of DG Inspector:

Date:



Appendix- 8A

General Procedures to be followed for transport of Aviation Fuel on Helicopters

The following general procedures must be followed by the helicopter operators while carrying aviation fuel in containers on board the helicopter.

I. Inspection

- i. Inspection of the containers must be carried out before refilling and loading on the helicopters.
- ii. In case of damage, such containers must be checked and tested carefully to assess appropriateness for refilling and transport.
- iii. In case of leakage, spillage or seepage, such containers must not be allowed for transport.
- iv. Plastic covers must be fitted on each container (drum) to prevent rain water or any other contamination to enter into the drum.

II. Packaging

- i. Containers manufactured for the purpose of carrying aviation fuel are recommended to transport Jet A1 or Avgas or the operators shall be responsible for the appropriateness of the containers to transport fuel as per their requirements.
- ii. Containers must be strong enough to withstand the normal conditions of air transport.
- iii. It must be ensured that no harmful quantity of fuel have adhered to the outside of the container.

III. Marking and Labelling

- i. Containers must be marked with their contents. Either 'Jet A1' or 'Avgas' on the outside.
- ii. Container must be marked with 'Flammable Liquid' or labelled with a 'Flammable Liquid label'.
- iii. Containers must be marked with 'Orientation' sign or 'Orientation Label' must be affixed on the outside of the container.

IV. Handling and Loading

- i. Containers must be handled, loaded and unloaded carefully in order to prevent damage.
- ii. Containers must always be loaded, unloaded and stowed in an upright position.
- iii. Containers must be properly secured in order to avoid damage and/or change of orientation during flight

V. Measures to be taken during refueling helicopter



- i. Refuelling of helicopters must be done in accordance with the prevalent/appropriate procedures by using proper equipment.
- ii. Portable Fire Extinguishers must be readily available at the refuelling spot in charge of trained personnel.
- iii. The refuelling spot must be checked of spillage on the ground and must be cleaned accordingly.
- iv. Refuelling must be done in areas, away from people and property as far as possible.
- v. Refuelling must be done by trained personnel or in presence of trained personnel.

VI. Refilling of Containers

- i. Containers must be inspected for damage and cleanliness before refilling.
- ii. If the container is found unclean or contaminated with other objects, they must first be cleaned properly before refilling.
- iii. Sufficient 'Outage" must be left in each container while refilling.
- iv. Closures must be properly placed and secured tightly and effectively after refuelling.

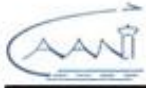
VII. Storage of Containers with fuel

- i. Containers must be stored in a shaded area/room, away from direct sun light and/or any sources of heat.
- ii. Access to the containers and its contents must be limited to concerned and authorised person only.

VIII. Transport of empty containers

The empty containers may contain residual fuel. Thus, the following measures must be taken to prevent incident and accident while transporting.

- i. Drain the residual fuel completely or clean the containers properly.
- ii. Put the cap firmly and store them in shaded areas/warehouse.



Appendix- 8B

Specific Procedures to be followed for the Transport of Aviation Fuel in Drums, Jerry cans and Mobile Tanker on Helicopter

The specific procedures are detailed below for the handling and transport of aviation fuel for preventing and/or minimising incident which may lead to serious injury or loss of life and property.

1. Transport of aviation fuel in Drums

1.1 Storage

- 1.1.1 Drums must be stored on their sides with closures facing upward.
- 1.1.2 The drums must be filled up to the allowed level to avoid condensation.
- 1.1.3 The drums must be marked with the date on arrival from the NOC after refuelling.
- 1.1.4 The Storage periods of fuel in drums must be as minimum as possible. However, in no case it shall exceed 12 months for Jet A1. And, the storage periods shall not exceed 6 months in case of Avgas.
- 1.1.5 Jet A1 shall not be stored in Avgas drums or vice versa.

1.2 Transportation

- 1.2.1 Drums must be firmly secured to the vehicle while transporting in order to prevent incident and accident.
- 1.2.2 Drums must be transported in upright position by placing a plastic cover to prevent rain water or any other contaminant to enter into the drum.
- 1.2.3 Operators must prevent damage to the lacquer lining of the drum as the peel off of the lining may possibly contaminate the fuel.

1.3 Refuelling from Drums

- 1.3.1 Prior to refueling a helicopter from a drum the following procedures must be followed:
 - 1.3.1.1 The pump must be fitted to the drum and lean it over so that the pump is placed on the lowest side of the drum.
 - 1.3.1.2 Pump a sample of the fuel into a clean glass jar and inspect it in accordance with 3.3 of this procedure.
 - 1.3.1.3 Refueling may be commenced if sample is found clean or uncontaminated.
 - 1.3.1.4 Re-sampling must continue until a clean sample is obtained, after which refuelling may be commenced. In case, if clean sample could not be obtained even after several re-sampling, then the fuel of the drum must be rejected.



- 1.3.2 The drum must not be left unattended whilst the helicopter is being refueled.
- 1.3.3 Inspection of pump filter must be carried out to check the presence of contamination after the completion of the refueling. If any contamination is found, the fuel must be allowed to settle in the aircraft fuel tank for at least 10 minutes, after which a sample must be drawn from the lower point of the fuel tank for inspection again. The process must be continued until a clean sample is obtained to ensure cleanliness of the fuel.

2. Transport of aviation fuel in Jerricans

2.1 Storage

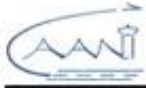
- 2.1.1 Jerricans must be stored with closures facing upward.
- 2.1.2 An Outage must be left while filling up the jerry cans.
- 2.1.3 The jerricans must be marked with the date of refuelling on arrival from the NOC , if the fuel is to be stored for a long time.

2.2 Refuelling of Jerricans

- 2.2.1 Prior to refuelling an aircraft from a jerrican the grade of fuel must be checked visually to assess its quality.
- 2.2.2 The fuel can then be poured into the aircraft using a screw on filler if the configuration of the jerrican and aircraft tank orifice indicates possibility of spillage.
- 2.2.3 The contents of the jerrican must not be completely emptied into the helicopter fuel tank as it may contain small quantity of water absorbed through moisture in the air.
- 2.2.4 The person refueling the helicopter must check the leftover quantity of the fuel in the jerrican to determine presence of water or other contaminants. If any contaminants are found to be present, the aircraft must be left to stand still for at least 10 minutes, after which samples can be taken from the low point of the tank until the sample indicates clean.
- 2.2.5 Hot refueling for helicopter using Jet fuel shall be permitted provided the operator has the provisions of hot refueling dispensation.
- 2.2.6 Hot refuelling with metal jerrican shall not be allowed as it may lead to static charges due to natural phenomenon.

2.3 Refilling Jerricans

- 2.3.1 The jerricans must be kept clean with the lids firmly tightened.
- 2.3.2 The plastic gaskets under jerrican lids should be removed in order to prevent them accidentally entering the aircraft fuel system.



- 2.3.3 The inside of the jerricans must be checked for contaminants or dirt. If contaminant or dirt is traced, it must be flushed out prior to refilling them. The flushing may be stored in separate and different type of containers which are not used for storing aircraft fuel.
- 2.3.4 Outage must be left in the jerricans in order allow them to contain expansion of the fuel caused by normal transport conditions.
- 2.3.5 The lids of the jerricans must be secured tightly and firmly to ensure escape of the fuel.

3. Transport of Aviation fuel in Mobile Tankers

3.1 Conditions of use

- 3.1.1 All mobile tankers shall have clearance from the operator prior to being carried on the road as a mobile tanker.
- 3.1.2 Safety equipment must be carried as follows:

	Type	Tank capacity	Extinguisher Size
Fire Extinguisher	Dry powder or Halon	up to 2000l	2.25kg capacity
		Over 2000l	8.0kg capacity

The fire extinguisher must be carried aboard mobile tankers at all the times and must be readily available for use. Additionally, evidence of annual physical check on each fire extinguisher shall be available.

- 3.1.3 The mobile tanker shall be labeled conspicuously as follows:
 - i. Danger flammable Liquid.
 - ii. No source of ignition within 50 feet.
- 3.1.4 The Person detailed to drive mobile tankers must be well trained and experienced.
- 3.1.5 The inside of the mobile tankers used for the storage of Jet A1 must be inspected for algae growth every two years.
- 3.1.6 The Filters on mobile tankers must be inspected for serviceability every six months and replaced every two years or sooner if contaminants are found during inspection.

3.2 Refuelling from Mobile Tankers

The following procedure must be followed when refueling from mobile tankers.



- i. Park aircraft at a safe distance from the tanker
- ii. Collect sample from the tank sump and inspect for contaminants before refueling.
- iii. Confirm the grade of fuel to be proper.
- iv. Bond tanker to the aircraft using the bonding fuel.
- v. Engage the pump
- vi. Draw sample from the tank and perform quality check. (The sample shall be taken under pressure)
- vii. Draw sample from nozzle and perform quality check.
- viii. Refuel the aircraft.
- ix. Remove nozzle, close filler cap, remove nozzle bonding, and stow hose.
- x. Disconnect bonding clip and rewind cable
- xi. Switch the pump off.

3.3 Visual Inspection of the Fuel Samples

The purpose of this section is to describe how to check the grade, cleanliness and confirm the absence of free or suspended water in the fuel.

- i. Checking of the sampling jar for traces of dirt or water must be carried out and wiped clean with dry lintless cloth. Synthetic fibre cloths must not be used.
- ii. A sample must be drawn under pressure in order to ensure achievement of maximum "scouring action" from product flow. Sufficient volume must be drawn to ensure that the sample obtained is representative of the fuel.
- iii. Try to identify the grade by checking the colour of the sample. The sample must be inspected for free water, suspended water and dirt particles. The sample of any grade of fuel that does not contain any dirt or water will appear as "clear" meaning that there is no particulate matter or sediment in the fuel and "bright" meaning that the fuel "sparkles" in bright light, having no cloudiness or haze.

Repeat sampling whenever dirt or water is found until a clear and bright sample is obtained. The tanker must not be used to transport fuel if clean and bright sample could not be obtained. In such cases, inform the fuel supplying company or a fuel company contractor to clean the tanker.



APPENDIX 9

**Flight Safety Standards Department
Civil Aviation Authority of Nepal
Sinamangal, Kathmandu**

CERTIFICATE NO.

DANGEROUS GOODS OPERATOR / SHIPPER / DESIGNATED POSTAL OPERATOR CERTIFICATION

This is to certify that

has been assessed and was found to be in full compliance with the requirements outlined in ICAO Technical Instructions for the Safe Transport of Dangerous Goods by Air, the Civil Aviation Regulations (CAR 2002) of Nepal and Dangerous Goods Handling Requirements of CAAN

Date of Issue :

Date of Expiry:

Chief, Flight Safety Standards Department
Civil Aviation Authority of Nepa