



GOVERNMENT OF INDIA

**OFFICE OF THE DIRECTOR GENERAL OF CIVIL AVIATION**  
TECHNICAL CENTRE, OPPOSITE SAFDARJUNG AIRPORT, NEW DELHI

**CIVIL AVIATION REQUIREMENT**

**SECTION 11 – SAFE TRANSPORT OF DANGEROUS GOODS**

**SERIES ‘C’ PART I**

**ISSUE III, 8<sup>TH</sup> JANUARY 2010**

**EFFECTIVE: FORTHWITH**

**SUBJECT: Approval of Dangerous Goods Training Programme.**

**1. INTRODUCTION**

- 1.1 Dangerous goods are articles or substances which are capable of posing a risk to health, safety, property or the environment. In order to ensure safe transport of dangerous goods by air, ICAO has laid down the standards in Annex 18 and also issued the Technical Instructions for the Safe Transport of Dangerous Goods by Air. For giving effect to these provisions in India, the Aircraft (Carriage of Dangerous Goods) Rules, 2003, have been framed.
- 1.2 The successful application of the provisions pertaining to safe transport of dangerous goods by air are greatly dependent on the appreciation by all individuals concerned of the risks involved and on a detailed understanding of these provisions. This can only be achieved by properly planned and maintained initial and recurrent training programmes for all persons concerned in the transport of dangerous goods.
- 1.3 Rule 12 of the Aircraft (Carriage of Dangerous Goods) Rules, 2003, provides that no person shall engage himself in any manner in the transport of dangerous goods unless he has undergone proper training in accordance with the Technical Instructions. For this purpose, initial and recurrent dangerous goods training programmes are required to be established and maintained by or on behalf of various agencies involved in the transport of dangerous goods by air. The dangerous goods training programmes established and maintained by or on behalf of Indian operators as also those established and maintained in India by other agencies shall be subjected to review and approval by the D.G.C.A.
- 1.4 This Civil Aviation Requirement (CAR) lays down the requirements and procedure for grant of approval to the dangerous goods training programmes.
- 1.5 This CAR is issued under rule 13 of the Aircraft (Carriage of Dangerous Goods) Rules, 2003.

**2. OBJECTIVES OF TRAINING**

- 2.1 The primary objective of dangerous goods training is safety. A trained person would be in a better position to appreciate the risks involved in the carriage of dangerous goods by air and deal with them in accordance with the laid down processes and procedures.
- 2.2 Upon successful completion of the dangerous goods training, a person shall be able to –
- (i) fully understand and differentiate between shipper's and operator's responsibilities;
  - (ii) identify all dangerous goods which are:
    - (a) forbidden for air transport; or
    - (b) permitted as cargo in accordance with the Technical Instructions; or
    - (c) excepted from the requirements of the Technical Instructions.
  - (iii) identify the nine classes of dangerous goods by their principle criteria;
  - (iv) extract the relevant information from the List of Dangerous Goods and apply it;
  - (v) comprehend and apply the packing instructions;
  - (vi) properly mark and label a dangerous goods package and verify that the marking or labelling requirements have been met;
  - (vii) complete a dangerous goods transport document and verify that the information provided thereon complies with the Technical Instructions.
  - (viii) using an acceptance checklist, correctly accept or reject a shipment;
  - (ix) comprehend and apply the separation and segregation requirements;
  - (x) comply with the requirements for providing the pilot-in-command with the pertinent information on the dangerous goods on board the aircraft;
  - (xi) recognise and apply the appropriate State and/or Operator variations; and
  - (xii) apply relevant emergency procedures.

**3. REQUIREMENTS FOR TRAINING**

3.1 There are various categories of personnel which are required to be trained in dangerous goods regulations. The aspects of training to be covered for each category of personnel may vary depending upon the responsibilities of the person. However, personnel shall receive training in the requirements commensurate with their responsibilities. Nevertheless the dangerous goods training for each category of personnel shall include the following:-

- (a) General familiarization training – which shall be aimed at providing familiarity with the general provisions;
- (b) Function-specific training – which shall provide detailed training in the requirements applicable to the function for which that person is responsible; and
- (c) Safety training – which shall cover the hazards presented by dangerous goods as well as safe handling and emergency response procedures to be followed.

3.2 An operator, depending upon its size, may have several training programmes customized to the individual responsibilities of its staff.

3.3 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 7, 8, 9, 10, 11 and 12 shall be required to be trained whether or not such operators carry dangerous goods.

3.4 Training shall be provided or verified upon employment of personnel identified in the Technical Instructions.

3.5 Recurrent training shall take place within 24 months of the previous training to ensure that the knowledge is current. However, if recurrent training is completed within the final three months of validity of previous training, the period of validity shall extend from the date on which the recurrent training was completed until 24 months from the expiry date of that previous training.

**4. APPLICATION FOR APPROVAL**

4.1 An application for grant of approval for establishment of a Dangerous Goods Training Programme shall be made to the DGCA (Dangerous Goods Division).

4.2 The application shall be accompanied by the Dangerous Goods Training Manual and shall include, in addition to any other relevant information, the following details:-

- (i) Name of the training organisation;

- (ii) Categories of personnel to be trained (as mentioned in the Technical Instructions).
- (iii) Particulars of the class-room facilities and training aids;
- (iv) Description of the training materials to be used to meet the training requirements.
- (v) Names, qualifications and experience of the Chief Instructor and other Instructors;
- (vi) Maximum number of participants to be enrolled in a class; and
- (vii) The frequency at which the course is likely to be conducted;

## **5. DANGEROUS GOODS TRAINING MANUAL**

5.1 The Dangerous Goods Training Manual shall, in addition to any other relevant information, contain the following chapters, namely:-

- (i) Introduction
- (ii) Indian legal regime on carriage of dangerous goods by air
- (iii) Categories of personnel to be trained
- (iv) Qualifications and experience of the instructors
- (v) Course Objective
- (vi) Course Structure/Methodology
- (vii) Course Contents
- (viii) Course Schedule
- (ix) Lesson Plan
- (x) Assignments/Exercises
- (xi) Model Examination Papers
- (xii) Course Evaluation
- (xiii) Specimen Certificate
- (xiv) Maintenance of Training Records

5.2 The terms to be used in the Manual shall be in line with those defined in the Technical Instructions and the Aircraft (Carriage of Dangerous Goods) Rules, 2003.

5.3 A system shall be developed to review and revise the Manual so as to incorporate the amendments, as and when issued, to the provisions of Annex 18 to the Chicago Convention, the Technical Instructions (Doc. 9284 AN/905), the Aircraft (Carriage of Dangerous Goods) Rules, 2003, and any other related document. A copy of the Manual so revised shall be submitted to the DGCA immediately for concurrence/approval.

**6. DANGEROUS GOODS INSTRUCTORS**

- 6.1 For the establishment and maintenance of a Dangerous Goods Training Programme, there shall be a minimum of two qualified Instructors. One of the Instructors, preferably the senior most, shall be designated as the Chief Instructor.
- 6.2 The Dangerous Goods Instructor shall have the following minimum qualifications:-
- (i) successful completion of the dangerous goods training in Category 6, which shall be valid for at least six months from the date of application for approval; and
  - (ii) successful completion of the 'Professional Skills for Dangerous Goods Instructors' course; OR
  - (iii) a minimum of five years experience as an instructor.
- 6.3 A dangerous goods instructor should preferably have two years experience in cargo operations including acceptance and handling of dangerous goods.
- 6.4 Since the instructors form an important part of the Dangerous Goods Training Programmes, approval of DGCA shall be obtained before inducting any new instructor.
- 6.5 A new instructor shall conduct at least three courses under the supervision and guidance of an already approved instructor.
- 6.6 A dangerous goods instructor shall conduct at least two courses within a period of six months. In case of a longer gap, he shall be required to undergo a recurrent course in Category 6.

**7. GRANT OF APPROVAL**

- 7.1 On receipt of the duly completed application and the Dangerous Goods Training Manual, an inspection shall be carried out by an officer, who is authorised to do inspection under rule 10A of the Aircraft (Carriage of Dangerous Goods) Rules, 2003 to verify whether the training organisation is fully equipped and is competent to provide the training in accordance with the requirements specified in this CAR.
- 7.2 Upon being satisfied that the training organisation has the capability to conduct the training in a proper and efficient manner in accordance with the provisions of this CAR, the Director-General or any other officer authorised in this behalf may grant approval to the Dangerous Goods Training Programme.
- 7.3 The validity of the approval shall be for a period not exceeding one year, whereafter it may be renewed subject to continued compliance with the laid down requirements/conditions.

7.4 At any time, if the training organisation is not in a position to comply with the requirements stipulated in this CAR or the conditions of approval, it shall intimate DGCA about it and suspend the training forthwith. During this period, the training organisation shall take appropriate remedial action under intimation to DGCA who may restore the approval if the action taken is found to be satisfactory.

**8. DURATION OF TRAINING COURSES**

8.1 The subject matter relating to transport of dangerous goods with which various categories of personnel should be familiar is indicated in the Technical Instructions. Depending upon the scope and complexity of the topics to be covered, the duration of the training course for each category of personnel shall be so fixed as to achieve the objectives of the course.

8.2 The minimum duration of the training courses for various categories of personnel is given below :-

(a) (i) Shippers and persons undertaking the responsibilities of shippers (Category 1).	
(ii) Staff of freight forwarders involved in processing dangerous goods (Category 3).	40 hours for Initial Training and 20 hours for Recurrent Training.
(iii) Operator's and ground handling agent's staff accepting dangerous goods (Category 6).	
(b) (i) Packers (Category 2).	
(ii) Staff of freight forwarders involved in processing cargo, mail or stores (other than dangerous goods) (Category 4).	16 hours for Initial Training and 8 hours for Recurrent Training.
(iii) Staff of freight forwarders involved in the handling, storage and loading of cargo, mail or stores (Category 5).	
(iv) Operator's and ground handling agent's staff accepting cargo, mail or stores (other than dangerous goods) (Category 7).	
(v) Operator's and ground handling	

agent's staff involved in the handling, storage and loading of cargo, mail or stores and baggage (Category 8).

- (c) (i) Passenger-handling staff (Category 9).
- (ii) Flight crew members and load planners (Category 10).
- (iii) Crew Members (other than flight crew members) (Category 11).
- (iv) Security staff who are involved with the screening of passengers and their baggage and cargo, mail and stores (Category 12).

8 hours for Initial Training as well as for Recurrent Training.

8.3 A detailed Course Schedule indicating the period to be devoted for each topic included in the course contents shall be prepared and included in the Dangerous Goods Training Manual.

## **9. DUTIES OF CHIEF INSTRUCTOR**

9.1 The Chief Instructor shall be responsible to DGCA for the efficient conduct of training in accordance with the scope of training and also for ensuring that standard of training is maintained and the terms and conditions of approval are observed.

9.2 In order to achieve this objective, the Chief Instructor shall ensure that:

- a) appropriately qualified instructors are available in adequate number.
- b) the participants possess the minimum educational qualifications and meet other requirements, if any.
- c) the training aids and equipment are maintained in a proper and serviceable condition.
- d) each participant is provided a copy each of the latest edition of the ICAO Technical Instructions/IATA Dangerous Goods Regulations, the Aircraft (Carriage of Dangerous Goods) Rules, 2003, the Civil Aviation

Requirements and any other directions issued by DGCA on the carriage of dangerous goods by air.

e) high standard of instruction and examination is maintained.

9.3 The Chief Instructor shall obtain approval of DGCA before inducting any new instructor.

9.4 The Chief Instructor shall be responsible for setting up the question papers, conducting the examination, checking/marking of answer sheets and issuance of certificates to the successful participants. He shall maintain a liaison with DGCA in this regard.

9.5 He shall be responsible for systematic maintenance of the training records as required by paragraph 13 of this CAR.

9.6 The Chief Instructor shall also ensure that proper and adequate facilities are provided to the authorised officers of DGCA for inspection of the Dangerous Goods Training Programme.

## **10. STANDARD OF TRAINING**

10.1 The minimum educational qualifications of the participants for the dangerous goods regulations training shall be 10+2.

10.2 The class room shall be fully equipped with modern equipments such as computer, VCD, LCD, power point projector etc. It shall be ensured that all the facilities and teaching aids as mentioned in the Dangerous Goods Training Manual and the class room environment as demonstrated during inspection/audit, shall be maintained at all times.

10.3 Every participant shall be provided a copy of the ICAO Technical Instructions / IATA Dangerous Goods Regulations Manual and other training material such as Emergency Response Guidance, handouts etc. for reference during the course.

10.4 Adequate number of films on dangerous goods produced by IATA or other organisations shall be procured and the relevant portions shown to the participants during the course for clear understanding of the concepts.

10.5 Whenever any training course is planned, an intimation shall be sent to DGCA so as to reach him at least fifteen days prior to the commencement of the course.

10.6 In order to enable the instructor to give personal attention to all the participants, the ideal size of a dangerous goods course should be 10 to 15 participants. However, the maximum number of students shall not exceed 20 in any case.



- 10.7 Each course shall be limited to one category of personnel. However, certain categories of personnel may be clubbed depending upon the commonality of course contents for these categories as specified in the Technical Instructions.
- 10.8 The participants for recurrent training shall not be mixed with those for the initial training.
- 10.9 Objectives shall be clearly stated at the start of each course and sufficient exercises shall be included in the course to demonstrate achievement of these objectives.
- 10.10 The syllabus for each category of personnel shall include adequate coverage of the Indian legal regime on carriage of dangerous goods by air
- 10.11 A minimum of 50 persons shall be trained by a training organisation every year.
- 10.12 During the conduct of the training, the Dangerous Goods Training Manual shall be followed in letter and spirit. However, any direction from the DGCA in regard to the conduct of the course shall be complied with.

#### **11. EXAMINATION AND CERTIFICATION**

- 11.1 At the end of a training course, each participant shall be required to successfully pass a comprehensive written examination to test his understanding of the subject.
- 11.2 A participant shall have 100% attendance before he is allowed to appear in the examination.
- 11.3 The examination shall be so designed as to enable the participant to demonstrate an understanding of all the subjects covered. The difficulty level of the questions shall be such that the examination tests the ability of the participant to perform his job functions in compliance with the provisions of the Aircraft (Carriage of Dangerous Goods) Rule, 2003 and the Technical Instructions.
- 11.4 A participant shall be required to secure 80% marks to pass the examination.
- 11.5 The participants who successfully complete the course shall be issued a certificate to this effect.
- 11.6 Those who fail to secure 80% marks in the examination may be allowed to reappear in the test for the next batch within a period of three months of the training.
- 11.7 A report on the conduct of the training course indicating the marks obtained by each participant shall be submitted to the DGCA within seven days of the date of examination.

**12. RENEWAL OF THE APPROVAL**

- 12.1 A request for renewal of the approval of the Dangerous Goods Training Programme shall be made to DGCA at least 30 days prior to expiry of the approval.
- 12.2 An internal audit report confirming that the training organisation maintains the required capability and meets the requirements of this CAR shall also be submitted along with the request for approval.
- 12.3 On receipt of the request, an audit of the training organisation shall be carried out by an officer of the DGCA authorised in this behalf. On being satisfied that the training is being conducted in a proper and efficient manner and the requirements specified in this CAR as well as the conditions of approval are being complied with, the approval may be renewed for a period not exceeding one year.

**13. TRAINING RECORDS**

- 13.1 The following records shall be preserved for a minimum period of three years from the date of the completion of the most recent training:-
- (i) a copy of the registration form duly filled in by the participants;
  - (ii) a description or reference of the training materials used to meet the training requirements;
  - (iii) a copy of the Question paper / Answer sheet of each participant;
  - (iv) a copy of the course evaluation form completed by the participants; and
  - (v) a copy of the certificates issued to the successful participants.
- 13.2 The following records shall be maintained for a minimum period of five years from the date of completion of the most recent training:-
- (i) the name of the participant;
  - (ii) the category in which training conducted, indicating whether initial or recurrent;
  - (iii) the commencement and conclusion dates of the course; and
  - (iv) the result of the examination conducted at the end of the course.
- 13.3 The records shall be made available upon request to an authorised officer of the DGCA for inspection.

*Nasim Zaidi*

**(Dr. Nasim Zaidi)  
Director General of Civil Aviation**