



# Advisory Circular

**AC 92-03(0)**

**AUGUST 2009**

## **DANGEROUS GOODS TRAINING COURSES AND INSTRUCTORS**

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*Advisory Circulars (ACs) are intended to provide advice and guidance to illustrate a means, but not necessarily the only means, of complying with the Regulations, or to explain certain regulatory requirements by providing informative, interpretative and explanatory material.*

*Where an AC is referred to in a 'Note' below the regulation, the AC remains as guidance material. ACs should always be read in conjunction with the referenced regulations.*

## 2. PURPOSE

2.1 To provide advice to the aviation industry on the regulatory requirements for:

- the various types of dangerous goods training courses and how to obtain approval from the Civil Aviation Safety Authority (CASA);
- the required qualifications of instructors on dangerous goods training courses approved by CASA and how approval to instruct on those courses may be obtained; and
- the qualifications required of instructors on courses not required to be approved by CASA.

2.2 It applies to:

- in-house dangerous goods (DG) instructors and training courses run by:
  - commercial aircraft operators;
  - ground handling agents (GHA);
  - freight forwarders;
  - shippers of dangerous goods; and
  - screening authorities; and
- independent dangerous goods training organisations seeking the approval of CASA to conduct dangerous goods training.

## 3. STATUS OF THIS AC

3.1 This is a new AC. Material that was previously in AC 92-1(0) regarding dangerous goods training courses and instructors has been removed and expanded upon to create this AC. It includes deficiencies that have been discovered during CASA audits on training organisations and also incorporates changes brought about by the amendment to the Civil Aviation (Fees) Regulations 1995.

## 4. ACCRONYMS

<b>AC</b>	Advisory Circular
<b>ARN</b>	Aviation Reference Number
<b>CASA</b>	Civil Aviation Safety Authority
<b>CASR</b>	Civil Aviation Safety Regulations
<b>DG</b>	dangerous goods
<b>DGR</b>	Dangerous Goods Regulations
<b>GHA</b>	ground handling agents
<b>IATA</b>	International Air Transport Association
<b>ICAO</b>	International Civil Aviation Organization
<b>MSDS</b>	Material Safety Data Sheets

<b>NOTOC</b>	Notice to Captain
<b>TI</b>	Technical Instructions
<b>ULD</b>	Unit Load Device
<b>UN</b>	United Nations

## 5. WHAT ARE THE EMPLOYEE GROUPINGS?

**5.1** An employee is defined in CASR 92.085 as being in one of six groups, Group A to Group F. For example, a Group A employee means “an employee whose duties include accepting, or supervising someone whose duties include accepting, cargo known or believed to contain dangerous goods consigned for transport on an aircraft at any time after it leaves the custody of the original consignor”, and (unless the contrary intention appears) includes a deemed employee whose function includes those duties.

**5.2** The “deemed” employee referred to is also defined in the regulation and refers to a person who, though not directly employed, performs services for an operator etc. For example, an employee of a contractor or a contracted employee would fit the definition of a “deemed” employee.

**5.3** Group B employees are those employees, or the supervisors of those employees, who accept cargo and that cargo is not dangerous, for consignment on air transport. A critical function of the Group B employee is that they are able to distinguish and classify as to whether goods are dangerous or not.

**5.4** Groups C and D employees relate to functions performed by flight, cabin crew and load planners.

**5.5** Group E is applicable to those employees involved in handling, or supervising those employees that handle, cargo and passengers. This group also includes security screeners. Further detail regarding the employee groups can be found in AC 92-01(1) – Dangerous Goods Training for Employees.

**5.6** Group F employees are those employees, who are involved with enclosing dangerous goods in packaging; marking or labelling the dangerous goods consignment, or preparing the dangerous goods transport document (commonly referred to as a “shipper’s declaration”).

**5.7** Where an operator uses the services of a GHA (or a freight forwarder performing the ground handling function) to handle cargo **on the operator’s behalf**, then the training for the GHA’s employees needs to cover off those aspects that are applicable to operators.

*Note: Ground handling agents and freight forwarders providing ground-handling services for operators must also have ready access to the operator’s dangerous goods manual and comply with the instructions contained in that manual.*

## 6. WHAT TYPES OF COURSES ARE THERE?

6.1 Part 92 of the CASRs contains two syllabi for dangerous goods training:

- The Table 92.135-1 syllabus is for those courses which are required to be approved by CASA before relevant employees undergo instruction. Instructors on these courses must also be approved by CASA; and
- The Table 92.135-2 syllabus is for those courses which may be conducted for relevant employees without requiring an approval from CASA. Instructors on these courses must themselves have completed satisfactorily, in the previous two years, an approved course for either Group A or Group B employees.

6.2 For an independent training organisation, most courses will be generic in nature. The purpose of the employee groups and the requisite training can be summarised as:

- **acceptance** - an initial course for the acceptance of dangerous goods. This is traditionally a 3+ day face-to-face course and will cover all classes of dangerous goods;
- **recertification** - for the recertification of the acceptance course; traditionally one or more days conducted face-to-face;
- **non-DG acceptance** - for the acceptance of non-dangerous goods; principally designed so that employees can determine whether goods are classified as dangerous or non-dangerous and accept the non-dangerous goods into the air freight environment;
- **flight crew and load planners** - for flight crew to understand the nature of the risks of any dangerous goods on board and procedures to be followed in the event of an incident; and, for load planners, the various considerations when preparing a load involving incompatible dangerous goods or cargo, and ensuring that the Captain is informed;
- **cabin crew** - designed so that these employees are familiar with the various dangerous goods, what may be carried on an aircraft and what to do should an emergency involving dangerous goods occur; and
- **shippers** - courses for those companies that send dangerous goods – designed so that employees will properly classify, pack, mark, label and document a dangerous goods consignment. Some shipper's courses will cover all nine classes of dangerous goods and will take 3 days for the initial course and one day for a recertification course. However, there are increasing numbers of stand-alone courses which cover only one class of dangerous goods – such as flammable liquids; biological substances or radioactives. These tailored courses will usually take 4-8 hours to complete.

6.2.1 All of the above DG courses are required to be approved by CASA. The following generic courses do not require CASA approval:

- security screeners;
- customer service officers (check-in staff); and
- ramp/baggage handlers and/or cargo handling staff.

**6.3 Recertification Courses.** After initial training, and within two years of receiving that training, an employee whose duties are the acceptance of dangerous goods (Group A) may undertake a recertification training course i.e. a “refresher” course, or may choose to undertake a complete acceptance course; however, recertification must take place within the two yearly cycle. These “refresher” training courses are designed to refresh knowledge and update employees on technical, procedural or company policy changes since the employee was last trained. Where an employee has not undertaken training within the two year interval provided by the regulations, the employee must attend another initial course unless an exclusion has been sought from, and provided by, CASA.

**6.4 Combination Courses.** Some employees in the aviation environment will have duties that cover several employee groups. For example, staff members who accept dangerous goods will also invariably accept non-dangerous goods thus they will require training that covers Group A and Group B employee groupings. Pilots employed by a major airline will require only Group C training for their role in the actual carriage of dangerous goods; whereas a pilot with a Charter operator, operating from locations where there are no supporting ground handling agencies, may have additional responsibilities such as the acceptance and examination of non-dangerous cargo and passenger baggage. The latter pilot may undertake a single approved course meeting the requirements of the regulations enabling all of those duties to be carried out. More examples of combinations and requisite training can be found in AC 92-01(1).

## 7. COURSE DELIVERY METHODS

**7.1** In general, there are three delivery methods that CASA currently approves. These are face-to-face, correspondence and computer based training. It is a currently held view that the training for initial and recertification courses for the acceptance of dangerous goods requires active and constant interaction with an instructor. Applicants considering applying for approval of a dangerous goods “acceptance” course by one of these methods should be aware of the potential difficulties associated with meeting CASA’s standards for these courses as well as ensuring that the technical content is always up-to-date. CASA should be consulted before proceeding with development of acceptance or recertification courses by distance education means.

**7.2** The variety of correspondence methods that have previously been considered include structured video presentation coupled with a workbook; structured correspondence workbook with and without an accompanying interactive DVD. Other delivery media will be considered on their respective merits, especially in light of evolving practices and technology.

**7.3 Distance Education Controls.** If the course is to be conducted by correspondence or a distance education method, a full course package, as is intended for issue to students, together with full details of course control procedures and identification of course controller(s) should be provided. The control procedures should comprise prevention and detection controls and, as a minimum, include:

- mechanisms to guard against inappropriate collaboration when completing course assessments. As a minimum, there should be different tests/assignments for training organisations that send correspondence material to a number of people in the same organisation. The result should be that employees in one company, undertaking the same course, at substantially the same time, will have a different exam to complete.

Where employee numbers at the location are high and different exams for all is not practical, then there should also be a quick analysis of corresponding wrong answers and similarity in handwriting styles;

- mechanisms to ensure that the course content is completed in an appropriate time, manner and speed that is reasonable for a candidate; and
- that each section has some form of review to ensure that the section has been adequately understood.

## 8. HOW OFTEN IS TRAINING REQUIRED TO BE UNDERTAKEN AND DEEMED DATES?

**8.1** Training is required to be undertaken at intervals of not more than two years. However, CASR 92.090 allows an employee to undertake the training up to three months before the date on which the training is due without affecting the due date. Example: Mary's training is due by 28 June 2007.

<b>Mary undertakes re-training:</b>	<b>Mary's new expiry date is:</b>
On or before 27 March 2007	2 years from the date of training
Between 28 March 2007 to 28 June 2007	28 June 2009
After 28 June 2007	2 years from the date of training

**8.2** Whilst it is not compulsory for training providers to monitor and issue certificates that take account of the deemed date, there is a competitive disadvantage in not offering this facility when reminding previous clients that the validity of their qualification is due to expire. Furthermore there is commercial value in sending reminders prior to the three month window afforded by CASR 92.090 and recommending that training be scheduled near the start of the three month window and not at the end, in view of there being minimal leeway should course completion not be achieved by the expiry date.

**8.3** There is also an implied obligation on training organisations to track and provide deemed dates for those organisations that offer a recertification course for acceptance of dangerous goods. One of the conditions of the course approval will be that the recertification course is only available to students who have undertaken training within the relevant time period.

## 9. WHAT SHOULD BE IN A DANGEROUS GOODS COURSE?

**9.1** It is not appropriate for a training course to include mandatory syllabus items without adequate supporting detail and explanation. The principle of ‘training’ is to provide the student with adequate knowledge and skills in a particular topic to be able to apply understanding of that topic in both a theoretical and practical sense. An employee is only required to undertake training in those syllabus subjects which are relevant to the employee’s responsibilities and duties within the organisation. Similarly, only those parts of each syllabus subject which are relevant need to be covered. The exception is that CASR 92.135 requires that all employees, on all courses, must undertake training in the provisions concerning passengers and crew. The training requirements for employees are more fully articulated in AC 92-01(1).

**9.2 Depth of material and purpose of training.** Dangerous goods are appropriately named hazards which can affect both persons and property. Aviation safety is of paramount concern; not just of the aircraft, but also for the employees who handle the freight and baggage and the passengers on board the aircraft. **The purpose of the training should not only be how to handle dangerous goods correctly; there should be an equal, if not greater, emphasis on detecting and acting when things are not correctly presented.**

**9.3** For example, the training should not only cover the correct way to do things, such as accepting dangerous goods, asking for a Material Safety Data Sheets (MSDS) and the proper completion of the transport documents; equally importantly it should also emphasise some of the pitfalls and errors that occur in daily operations, such as detecting that a plastic box with a “4G” United Nations (UN) specification mark is suspicious; or that an MSDS with “UN No - n/a” and a flashpoint of 53C is in fact a hidden dangerous good. Essentially there are three components to all the DG training courses:

- **General topic familiarisation.** This is common to all relevant employees in every organisation. It deals with dangerous goods generally, such as identifying the various classes and associated potential hazards to employees and aircraft and the legislation surrounding the Dangerous Goods cargo regime;
- **Specific functional training.** This will be targeted at and relevant to the employee’s job functions i.e. a Group B employee should be able to recognise a UN specification outer packaging by the markings, but there is little real value in that Group B employee being taught and tested on the finer points of UN specification package markings. Similarly, whilst they do not need to know the different toxicity criteria between Packing Groups I, II and III, they should be able to interpret an MSDS for toxic criteria and understand the threshold between it being dangerous and not being classified as dangerous; and
- **Safety training.** This component is crucial to the safety of aviation and associated employees and personnel. It goes to the components of emergency procedures on the ground and in flight, inspection and decontamination, incident management and subsequent reporting.

**9.4** Appendix A to this Advisory Circular is a matrix listing the syllabus items for dangerous goods training courses which are required to be approved by CASA.

**9.5** Appendix B is a matrix listing the syllabus items for dangerous goods training courses which may be conducted without approval, subject to the instructor being qualified (see Qualifications of Instructors – Sections 10 and 11) and the relevant syllabus items being covered. Each matrix provides advice on which syllabus subjects are required to be undertaken by employees with different duties and responsibilities.

**9.6** Appendix C provides amplification of all syllabus items such that a training provider can objectively determine that their material will equip the student to undertake the functions of that syllabus item.

**9.7** Appendix D provides amplification to those syllabus items such that a training provider can better objectively determine that their material will equip the students of courses not requiring CASA approval and the associated employee groups in Annex B, to undertake the functions of their duties.

**9.8** The matrices in Annexes A and B have identified various duty/responsibility combinations and named common titles of employees. However, advice should be sought from CASA where a particular circumstance is not covered in the matrix or where further information is required.

**9.9 Operator's DG Manuals.** The syllabus of training for operator employees in Tables 92.135-1 and 92.135-2 includes “the purpose, contents and distribution requirements of the operator's dangerous goods manual”. This is intended to cover the requirements relating to a dangerous goods manual rather than the specific content.

**9.10** Regulation 92.055 requires that operators take steps to ensure employees are made aware of the content of the operator's dangerous goods manual relevant to their duties before the employee first performs the duties.

**9.11** It is not mandatory that this requirement of CASR 92.055 be met via a training course, but operators who run an in-house course may choose to do so. Operators that outsource their dangerous goods training to one provider, and who experience high volumes of employees being trained, may also make arrangements with the course provider, to cover the specifics of their dangerous goods manual and policies and procedures. Where the operator uses an external generic course provider without the course being tailored for operator specifics, then the operator will need to institute a robust mechanism to ensure that employees are aware of the content of the company's dangerous goods manual, relevant to their duties, before the employee commences those duties.

**9.12** Where a training organisation is training a number of employees from one operator, or is that operator's preferred training provider, then a copy of the operator's dangerous goods manual ought to be sought and held.

**9.13 Exams, generally.** It is mandatory for all courses to “provide for a test of the employee's knowledge of the relevant subjects based on the training”. Whilst not compulsory, there is value in a Group F shipper's course including a practical component. The test should cover all areas of responsibility and questions should be worded so as to objectively verify that the student has received and understood the training. It should have sufficient number of questions which are appropriate to the employee's duties and the relevant syllabus items.



Furthermore, testing must be to a suitable depth; for example “How many classes of Dangerous Goods are there?” is not a satisfactory objective assessment against any of the requisite syllabus items; whereas “What are the potential risks associated with a leaking package displaying a class 8 label (a) to an aircraft and (b) to an individual” will address the syllabus item “risk to the aircraft and occupants associated with the class of DG”. Some topics can be addressed with two or three multiple choice questions. However, for some functional employee groups, scenario situations should be created; for example, Group A employee tests should provide for the acceptance of a number of consignments of dangerous goods wherein there are multiple errors.

**9.14** Sufficient time should be allowed for the test so that students are not placed under undue pressure, although the period chosen should not be unrealistically long. The test should be open book i.e. it should not test reliance on memory. The test should provide for the review of operational documents, which contain information relevant to the duties performed. The test should be conducted in conditions such that students are unable to confer with fellow students.

**9.15 Exams – Groups A and F courses.** As well as multiple choice aspects, there should be three consignments for acceptance/shipping, one of which is to be a radioactive shipment, one involving liquids and one involving Q values, and there should be errors on the documentation and discrepancies in the marking and/or labelling. Group A and F courses ought to highlight some of the finer nuances in classification; i.e. determining precedence of hazards and packing groups. Where a Group F course is limited to certain classes, then the exam need only cover aspects which are commensurate with the employee’s functions.

**9.16 Exams – Groups B, C and D courses.** Group B tests must highlight screening out and differentiating between dangerous and non-dangerous goods. Groups C and D need to address the operator’s DG manual and emergency procedures. Independent generic DG correspondence course providers can still tailor an element of “operator specifics” in the exam by including questions such as “What is the company procedure if a passenger arrives with medical oxygen?” Whilst the independent training organisation may not know the answer, it will still be possible to determine if the student has referred to the company’s manuals by the nature of the answer. All three groups of employees (B, C and D) need to recognise the requirements of CASR 92.070 (DG statement of contents).

**9.17 Instructor’s notes.** At one level, these should be in sufficient detail to enable CASA to determine the depth of detail that the instructor will be delivering and that there will be adequate coverage of each syllabus item. At another level, especially for organisations using multiple instructors (or the expectation of growth to more than one instructor), these should enable different instructors covering the same course to at least deliver the same course to the same standard.

**9.18 Workbooks.** These should be designed and structured to be worked through during the course. They should add value as a training aid and also be a useful resource for the student to revisit during the intervening two year period. Workbooks which are handed out but not referred to or used, will not serve any useful purpose. It is expected that extracts from working documents (such as Table 2.3A from the International Air Transport Association (IATA) Dangerous Good Regulations (DGRs) or the pink pages of the International Civil Aviation Organization (ICAO) Emergency Response Guide) will be current, up-to-date and preferably either marked as not being for operational purposes or marked with the year of the document from which it was copied.

The extracts should be annotated with relevant comments such that the student will recall at a later date that there is useful interpretative material available in the workbook. Workbooks which add extra value are those which also highlight major changes that came in the current and those which are expected to occur next year. Ordinarily, workbooks (and courses) should be revisited and updated in November/December of each year to pick up imminent changes that will apply from 1 January.

**9.19 Certificates.** Certificates, if sent electronically, must not be able to be easily altered and must have some form of unique identifier so that records can be rechecked on request to determine the certificate's validity.

## **10. FACILITIES**

**10.1** A training organisation conducting face-to-face training must have access to, or provide, facilities that are environmentally conducive to learning. Aspects for consideration include lighting, temperature control, seating comfort, sustenance, refreshment, washroom etc. Consideration must also be given to facilities that contribute to imparting knowledge, such as workbooks, training aids, media presentation (Video, overhead projector, powerpoint) and practical demonstration and practise.

**10.2 Roaming facilities – criteria.** A training organisation looking to conduct training away from their normal base of operations should have a process in place to gauge the suitability of a venue prior to running a course there. For example: it is not a conducive environment for conducting training if the company boardroom, nominally arranged to be the classroom for the day, has noise distractions (road/school playground etc) right outside the window, poor lighting, or is used as a thoroughfare for employees. The training environment should be assessed prior to the actual training taking place. This could be effected by way of a checklist over the telephone beforehand.

## **11. QUALIFICATIONS OF INSTRUCTORS – APPROVED COURSES**

**11.1** It is highly desirable that any instructor nominated for approval be experienced in cargo and dangerous goods operations relevant to the level of instructor approval applied for. Formal instructor qualifications, such as Certificate IV in Assessment and Workplace Training or 'Train the Trainer', are recommended but not compulsory. Instructors are expected to have a good working knowledge of the CASA legislation and technical publications applicable to the courses being instructed, and applicants may be tested on that knowledge during the initial application or ongoing CASA audits.

**11.2** The usual formal qualification required of an instructor nominated to instruct on any course for which approval of CASA is required, is the satisfactory completion of an approved dangerous goods "acceptance" course in the previous two years, that is, a course for Group A employees. However, this standard may be waived if CASA is satisfied that the applicant has other compensating equivalent qualifications and/or experience.

**11.3 Trainee Instructors.** Where a training organisation or operator proposes to develop a new in-house instructor, then that instructor requires an approval, even if the instruction is given under the supervision of another approved instructor.

**11.4** Applications for trainee instructors should be made to the relevant CASA office and should contain the following information:

- name;
- address;
- Aviation Reference Number (ARN). Where the individual does not have an ARN, then CASA Form 1162 – Flight Crew Photo ID/Student Pilot Licence Application is to be filled out and submitted with the application;
- experience and background that is relevant to dangerous goods and/or instructing;
- for trainee instructors, the proposed trainee instructor development schedule (which courses will be taught where, on which days and which approved instructor will be supervising the trainee instructor);
- anticipated date for CASA assessment of the instructor; and
- payment for the trainee instructor approval.

**11.5** The training organisation that is developing/mentoring the trainee instructor should keep a record of the instructor's development, the modules taught and post-instructional critiques. The trainee instructor's progress records and critiques should be made available to CASA at the assessment. The assessment will take about three hours of tuition time and the instructor's depth of knowledge, relevant to the courses to be taught, and their ability to impart the course material will be assessed.

## **12. QUALIFICATIONS OF INSTRUCTORS – DG COURSES NOT REQUIRING CASA APPROVAL**

**12.1** Persons instructing Group E employees on dangerous goods training courses (which do not require the approval of CASA) are, similarly, not required to be approved. However, those persons must themselves have undertaken an approved course for either Group A or Group B employees within the preceding two years before instructing, or have been excluded from this requirement by CASA. CASA has provided, and will continue to provide, blanket exclusion for instructors of Group A or B courses who have not undergone such a course themselves in the preceding two years, from having to do one when giving Group E training.

### **13. HOW TO APPLY FOR CASA APPROVAL OF DANGEROUS GOODS TRAINING COURSES AND INSTRUCTORS**

**13.1** The Civil Aviation (Fees) Regulations 1995 require CASA to charge for the assessment of exclusions at a prescribed hourly rate. In order to minimise costs, it is important that applicants ensure their applications reflect the applicable items of CASR Part 92 and paragraph **13.2** below. Incomplete applications, or courses which do not cover all relevant syllabus items to an adequate depth for the employee to discharge their functional responsibilities, will result in a greater expense to the applicant. Applicants may contact a CASA DG Inspector on 131757 or by sending an email to [dg@casa.gov.au](mailto:dg@casa.gov.au). Formal applications must be made in writing to CASA, at:

Dangerous Goods Inspector,  
Civil Aviation Safety Authority  
GPO Box 2005  
CANBERRA ACT 2601

**13.2** Applications for courses should contain the following information:

- identification of the legal entity making the application. This will either be the full name of the individual or legal name registered under the Corporations Act;
- where applicable, the trading name that is to be used including proof of registration;
- the ACN/ABN in respect of a company;
- name of contact person including telephone, facsimile and email addresses;
- physical location and postal addresses;
- the ARN for the organisation and the instructors. Where the applicant(s) does not have an ARN, then CASA form 1162 must be completed for individuals and submitted with the application.
- a clear concise statement identifying the duties and responsibilities of the employees for whom the course is intended. For example:
  - Group A employees of general aviation/airline operators; i.e. operators employees responsible for acceptance of dangerous goods;
  - Group B employees of general aviation/airline operators; i.e. employees responsible for acceptance of non-dangerous cargo;
  - Group C employees with Group B responsibilities as well; i.e. flight crew with responsibilities for acceptance of non-dangerous cargo;
  - Group A employees of domestic/international freight forwarders; i.e. employees with responsibility for acceptance of dangerous goods (and, if applicable, acting as GHAs for operator/s);
  - Group A and Group B employees of GHAs; i.e. employees responsible for accepting dangerous goods/non dangerous goods on behalf of operator/s;
  - Group D employees of an operator; i.e. cabin crew; and
  - Group F employees consigning Class 3 and Class 8 liquid dangerous goods, i.e. employees of shippers of dangerous goods;

- course content as it relates to the syllabus at Table 92-135-1 in the regulations. Further guidance on the relevant syllabus items for various typical employee responsibilities is provided at Annex A; amplification for those syllabus items is provided at Annex C;

*Note: The order in which the syllabus items are listed in the Annex is to align it with the sequence in the regulations. It is not intended that this should necessarily be the order in which the syllabus items are instructed.*

- a compliance matrix identifying where each syllabus item is covered in the course package will save time in the CASA assessment of the course and reduce costs in the approval process;
- whether the course is intended as initial or refresher training;
- course examination details including sample examination papers, with model answers and marking key, as applicable;

*Note: The course examination is to cover each syllabus item to a depth that demonstrates the candidate's capability of performing the functions of the job.*

- course duration in days or hours of instruction;
- where it is intended to conduct the course;
- identification of the intended instructor(s) including qualifications and relevant experience;
- a sample copy of the certificate to be issued to the students, in accordance with the requirements of CASR 92.135. The certificate should, as a minimum, provide the information required by CASR 92.145(2)(b)(i) and (ii). (Where the 'deeming' provision of CASR 92.090 is used, the certificate should clearly indicate the actual date the training was conducted and the date the training is deemed to have been conducted.);
- for face-to-face courses - a copy of the instructor's notes/guide. As a minimum, this should refer to the instructional aids to be used, the essential elements to be addressed in each module and the method by which the course material will be imparted;
- student workbooks and copies of any other classroom exercises, handouts, overhead projector slides or powerpoint-style presentations;
- for refresher courses – the mechanism by which the training organisation will ensure that candidates are not outside their two year training period; and
- as dangerous goods training courses may be subject to compliance monitoring by CASA, an undertaking to notify CASA, in advance, of the dates of planned courses as well as acknowledgment of the compliance monitoring requirement.

**13.3** Before a dangerous goods training course is approved, CASA must be satisfied that the standard of the course will enable an employee, on completing the course satisfactorily, to carry out the assigned duties and responsibilities effectively. Therefore, not only must CASA be satisfied that the course content offered is in accordance with the duties and responsibilities of the employees to be trained, but also that the nominated instructor is able to impart the required knowledge.

## **14. DURATION OF COURSE AND INSTRUCTOR APPROVALS**

**14.1** To ensure that approved dangerous goods training courses are kept up to date and appropriate for use, and that instructors maintain their skills, approvals issued by CASA for both the course and the instructor may have a limited period of validity.

**14.2** It is expected that course content will be changed to reflect amendments to CASA legislation and ICAO or IATA publications as they take effect, and such changes do not require further CASA approval during the validity period of the approval.

**14.3** Instructors and persons responsible for approved courses should ensure that they apply to CASA for renewal/re-approval of the course or instructor at least 30 days before the expiry of the approvals. This is to allow CASA sufficient time to consider the application and, if appropriate, issue new course or instructor approvals. **CASA will not notify an organisation or individual of the impending expiry of approvals.**

## **15. CURRENCY OF INSTRUCTORS**

**15.1** Holders of approvals to instruct on a dangerous goods training course should remain current. This can be achieved by either instructing all syllabus subjects relevant to the course for which an instructor's approval is held or by satisfactorily completing a relevant approved course, as a student, within the previous two years. Instructors on courses for which an approval is not required, who do not hold an approval from CASA to instruct on an approved course, should, unless granted an exclusion under CASR 92.155, have satisfactorily completed an appropriate approved course within the two years prior to instructing.

## **16. WHAT STUDENT RECORDS MUST BE KEPT?**

**16.1** Dangerous goods training organisations should maintain detailed records of all persons trained for at least three years.

**16.2** Records should be maintained in such a way that there is the ability to quickly establish the training status of a group of employees at a given location, or of a particular classification of employees, such as group E or group B employees, by employer, by trained date or by student name. Records may be kept electronically provided a hard copy can be provided. These records should include:

- the names of the employees who undertake the training;
- the name of the person conducting the training;
- a reference to the training material used to meet the training requirements, e.g. CASA's approval instrument number (if an approved course); and
- the date(s) the training was conducted. Where the 'deeming' provision of CASR 92.090 is used, the record should clearly indicate the actual date the training was conducted and the date the training is deemed to have been conducted.

**16.3** For in-house courses run by employers, the employer should retain a copy of any certificate required by CASR 92.135(5) issued to an employee. Provision should be made for the issue to the employee of a copy of the certificate where the employee ceases employment.

**17. WHAT INSTRUCTOR RECORDS SHOULD BE KEPT?**

**17.1** Whilst not mandatory, records should be kept for the preceding two years as evidence that instructor standards have been assessed, maintained, remediated, improved and/or standardised. These records ought to include peer review, principal instructor assessment and standardisation meetings covering course enhancements and refinements.

Executive Manager  
Standards Development and Future Technology

## APPENDIX A

## DANGEROUS GOODS SYLLABUS OF TRAINING – APPROVED COURSES

Syllabus item	Subject	Operator's employees						Ground handling agent's employees		Freight forwarder's employees		Shipper's employees
		Cabin crew	Cargo staff		Flight crew and load planners			Accepting DG	Accepting cargo (non-DG)	Accepting DG	Accepting cargo (non-DG)	
			Accepting DG	Accepting cargo (non-DG)	Operator carries DG	Combined flight crew and cargo (non-DG) acceptance	Operator does not carry DG as freight					
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)
1	The Act and Regulations with emphasis on the relationship between CASRs and ICAO/IATA and Statement of Contents provisions of CASR 92.070 and CASR 92.075	X	X	X	X	X	X	X	X	X	X	X
2	Dangerous goods manual: purpose, contents and distribution	X	X	X	X	X	X	X	X	X	X	X
3	Kinds of cargo/passenger baggage likely to be DG	X	X	X	X	X	X	X	X	X	X	X
4	Methods used to identify cargo which could be DG		X	X		X		X	X	X	X	
5	Risk to aircraft and occupants associated with each of the nine classes of DG	X	X	X	X	X	X	X	X	X	X	X
6	General philosophy on carriage of DG	X	X	X	X	X	X	X	X	X	X	X
7	DG forbidden under any circumstance		X		X	X		X		X		X
8	a. General applicability b. General transport requirements	<b>b only</b>	X	<b>b only</b>	X	X	<b>b only</b>	X	X	X	<b>b only</b>	X
9	DG of the operator	X	X	X	X	X	X	X	X			
10	DG in air mail		X	X	X	X	X	X		X	X	
11 and 12	DG in excepted/limited quantities		X		X	X		X		X		X



(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)
13	Definitions	X	X	X	X	X	X	X	X	X	X	X
14	Classification of DG	X	X	X	X	X	X	X	X	X	X	X
15	The dangerous goods list: a. information provided in the list; b. abbreviations used; c. n.o.s. entries "not otherwise specified".		X	X	X	X		X	X	X		X
16	Packing instructions including general packing requirements		X					X		X		X Relevant to classes consigned
17	Shipper's responsibilities: a. general; b. package markings; c. package labelling; d. identification of labels; e. documentation (shipper's declaration).	d only	X	d only	d only	d only	d only	X	d only	X	d only	X
18	Operator's responsibilities: a. acceptance procedures; b. storage, loading and segregation; c. provision of information to Pilot-in- Command (NOTOC); d. emergency procedures.	d only	X	d only	b, c, d only	b, c, d only	d only	X	d only			
19	Packagings: a. nomenclature and codes; b. markings and what they mean; c. requirements; d. performance tests.		X					X		X		X
20	Provisions concerning passengers and crew, including information to passengers	X	X	X	X	X	X	X	X	X	X	X
21	Proper shipping names		X		X	X		X		X		X
22	State and operator variations		X		X	X		X				
	<b>Syllabus items marked X should be instructed</b>											

## APPENDIX B

## DANGEROUS GOODS SYLLABUS OF TRAINING – COURSES NOT REQUIRED TO BE APPROVED

Syllabus item	Subject	Screening Authority's employees	Operator's employees		Ground handling agent's employees		Freight forwarder's employees
		Security Screeners	Porters/aircraft loaders/pick-up drivers	Passenger Service Officers	Porters/aircraft loaders/pick-up drivers	Passenger Service Officers	Employees handling cargo but without responsibility for acceptance of cargo
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
1	The Act and Regulations	X	X	X	X	X	X
1A	Statement of contents provisions of the regulations at CASR 92.070 and CASR 92.075		X		X		X
2	The operator's Dangerous Goods Manual: Purpose, contents and distribution		X	X	X	X	X Only if acting as ground handling agent
3	Kinds of cargo/passenger baggage likely to be dangerous goods		X	X	X	X	X
4	Methods used to identify cargo containing dangerous goods		X		X		X
5	Effect on aircraft of each class of dangerous goods		X	X	X	X	X
6	General philosophy on carriage of dangerous goods	X	X	X	X	X	X
7	Exceptions for dangerous goods of the operator		X		X		
8	Definitions		X	X	X	X	X
9	The nine classes of dangerous goods		X	X	X	X	X
10	Recognition of dangerous goods labels	X	X	X	X	X	X
11	Storage and loading of dangerous goods		X		X		
12	Provisions concerning passengers and crew	X	X	X	X	X	X
13	Relevant State and operator variations	X		X		X	
<b>Syllabus items marked X should be instructed</b>							

## APPENDIX C

## AMPLIFICATION OF SYLLABUS ITEMS FOR APPROVED DANGEROUS GOODS COURSES

Table 92.135-1 Syllabus for training Courses requiring CASA approval	Reference: Annex A to Advisory Circular AC 92.3(0) (March 2006)	General explanation and expansion of requirement for syllabus item for various groups of employees
1) The requirement of the Act and those Regulations (Part 92) relating to consignment and carriage of dangerous goods.	1) The Act and Regulations with emphasis on the relationship between the CASRs and ICAO/IATA and Statement of Contents provisions of CASR 92.070 and 92.075.	<p><b>All groups</b> - Provide an overview of the international regulatory framework of ICAO and IATA. This should stem from the UN and International Atomic Energy Agency (IAEA) and lead into a discussion of the Australian Civil Aviation Act ("the Act") and Regulations (Part 92). Students need to understand the interrelationship between ICAO/IATA and CASA. Training needs to include coverage of the Act (sections 23, 23A, 23B and 29); Part 92 and the penalties that apply. The definition of "strict liability" should be included. Training requirements must be made known (eg: Regulatory requirement and what level of training is being given to these employees and how often). Statement of contents covered in both the Act and Part 92. Pertinent Regulations should be discussed as they relate to an operation i.e.: requirement for DG manual - Regulations 92.040, 92.045 and 92.055 and reporting of Incidents 92.065 are only a small example of what should be highlighted from the Regulations. All employees should be aware of the compliance aspects and that responsibility to comply not only rests with the operator but with individual as well.</p> <p><b>Statement of contents</b> - covered in both the Act and Part 92. Should cover the requirements for a description of contents, a signature (or equivalent) and/or declaration of no-dangerous goods. Should cover employee's entitlement to rely on that signature/declaration and the impact of penalties should the signature/declaration be absent when hidden DG are discovered.</p>
2) If the course is to be undertaken by an operator's employee, the purpose, contents and distribution requirements of the operator's DG manual.	2) Dangerous Goods Manual: Purpose, contents and distribution.	<p><b>Groups A-D inclusive</b> - This is intended to cover the requirements relating to a DG manual rather than the specific content.</p> <p><b>Operator's employees</b> - Regulation 92.055 requires that operators take steps to ensure employees are made aware of the content of the operator's DG manual relevant to their duties before the employee first performs those duties. There are a number of areas where the procedures of the operator may need to be made specific. These could be in relation to company policies, passenger baggage where there are references to "operator approval", certain classes of DG that are not to stowed in certain lockers or holds, actions in the event of an in-flight emergency, reporting of DG accidents and incidents and reporting of undeclared DG. It is recommended that operator-specific courses be tailored to address these areas.</p>
3) Parts 7;1.4, 7;5 and 7;6 of the Technical Instructions (TIs) (the kinds of cargo or passenger baggage that are likely to be, or contain, DG).	3) Kinds of cargo/passenger baggage likely to be a DG.	<p><b>All employees</b> - Approximately 95% of all DG incidents relate to undeclared DG in cargo and forbidden items in passengers bags. Training should include information on hidden hazards and what may be found under general descriptions. This would pick up the usual suspects (surfboards, toolboxes etc).</p>
4) Methods used to identify cargo containing dangerous goods.	4) Methods used to identify cargo that could be dangerous goods.	<p><b>Group A and B employees</b> - Training in this item should emphasise the five senses in identifying hidden or mis-declared DG with common representative examples based on experience. It should also cover sourcing manufacturer's data through 1800 numbers, the internet and obtaining MSDSs; boxes with old labels; strange smells; content description not matching the feel of the box; usage of UN Specification packaging for general cargo; etc.</p> <p><i>Note: this item and classification (item 14) are crucial in equipping the employee to detect and identify potential hidden and mis-declared DG.</i></p>

5) The manner in which DG in each class of dangerous goods mentioned in the TIs could jeopardise the safety of an aircraft or anyone on it.	5) Risk to aircraft and occupants associated with each of the nine classes of DG.	<b>All employees</b> - Training should highlight that the classes of DG indicate their potential for injury and damage. This should include information on the risks to health, safety, property and the environment should there be an incident involving one of the nine classes and pertinent divisions of DG.  <b>For specific class shipper courses</b> – this need only be limited to the relevant hazard class/division.
6) The matters in the Foreword to the Technical Instructions.	6) General Philosophy on the carriage of DG.	<b>All employees</b> - When giving students an overview of the general philosophy on transporting DG by air the basic principles that minimise risk should be highlighted. These are; identification of items and substances according to risk, restricting and forbidding some items from air travel, packing and packaging requirements and quantity control, marking and labelling, loading and stowage restrictions, documentation, emergency procedures, reporting of incidents and accidents, and relevant training.
7) Part 1;2.1 of the Technical Instructions.  <i>(DG forbidden for transport by air under any circumstance).</i>	7) DG forbidden under any circumstance.	<b>Group A, B, C and F employees</b> - Depending on their hazard, DG are:  (a) forbidden under any circumstances; (b) forbidden on both passenger and cargo aircraft but can be carried in exceptional circumstances subject to Exemption or Approval by the States concerned; (c) forbidden on passenger aircraft but permitted on cargo aircraft; and/or (d) permitted on both passenger and cargo aircraft.  The training should explain the various degrees to which some DG are forbidden; where listings may be found and how State(s) approval(s) can be sought.
8) Parts 1;1.1 and 1;1.2 of the Technical Instructions.  <i>(General applicability and General transport requirements).</i>	8) General applicability and general transport requirements.	<b>All employees</b> - The detailed requirements for the transport of DG by air are found in the TIs. There are a few exceptions, which should be noted. The transport requirements are also outlined in the TIs and must be adhered to. This is amplified at IATA 1.2.1 and 1.2.6.
9) Part 1;2.2 of the Technical Instructions.  <i>(Exceptions for DG of the operator).</i>	9) DG of the operator.	<b>Groups A, B, C and D for operators and GHAs only</b> - A number of airworthiness and operational items are DG eg: chemical oxygen generators, escape slides/rafts, batteries etc, but when fitted to the aircraft are not subject to the requirements of the TIs and Part 92. Some DG are allowed to be carried for catering or cabin service supplies. The training should cover that replacement items and those removed for replacement need to be consigned as DG.
10) Part 1;2.3 of the Technical Instructions.  <i>(Dangerous Goods in air mail).</i>	10) DG in airmail.	<b>Groups A, B and C</b> - The conventions of the UPU apply to International mail. The ICAO TIs prohibit DG other than certain Infectious Substances (UN 3373) which may be packed in dry ice, and very low activity radioactive material, in airmail. Operators need to have procedures for carrying mail containing such DG. Some countries have imposed exclusions on these DG being in their airmail. Training should explain the requirements and what action to take if it is suspected that airmail contains prohibited DG. Australia Post could carry other dangerous goods domestically in their airmail; however, this would be subject to all the usual provisions of the ICAO TIs. Likewise Australia Post is also able to convey DG, in certain circumstances, via other modes of transport.
11) Part 1;2.4 of the Technical Instructions.  <i>(Dangerous Goods in excepted quantities).</i>	11) DG in excepted quantities.	<b>Employees of Groups A and F</b> - Provisions exist for very small quantities of DG to be shipped without meeting all the requirements of the regulations. Cover in detail. Should mention that DG in excepted quantity is not permitted as checked or carry-on baggage, nor in airmail. They may only go as cargo.  <b>For Groups B and C</b> - An overview of the specific requirements should be given.
12) Part 3;4 of the Technical Instructions.  <i>(Dangerous Goods in limited quantities).</i>	12) DG in limited quantity.	<b>Employees of Groups A and F</b> - Provision exists for small amounts of DG to be packed in non-specification packaging.  <b>For Group C employees</b> - An overview of the requirements should be given.  <i>Note: Many students fail to understand the differing requirements of excepted and limited quantities.</i>

13) Part 1;3.1 of the Technical Instructions. <i>(Definitions).</i>	13) Definitions.	<b>All employees</b> - Definitions of commonly used terms from a DG perspective. A number of relevant definitions such as ‘Dangerous Goods’, ‘Dangerous Goods Accident’ and ‘Dangerous Goods Incident’, ‘Passenger aircraft’, ‘Cargo aircraft’, ‘Batteries’, etc should be given to aid understanding of the relevant requirements.
14) Part 2 of the Technical Instructions. <i>(Classification of Dangerous Goods).</i>	14) Classification of DG.	<b>All employees</b> - Employees need to appreciate the different types of DG and how they are classified, to assist in recognising them if they are found in cargo and /or baggage.  <b>For Group A and F</b> – this module requires an in-depth coverage of all classes and hazard divisions. Students should also be able to deal with a variety of differing characteristics including mixtures and solutions, precedence of hazards, NOS determination, packing group criteria etc. – <b>Note – Many courses fail to provide adequate coverage of classes 1 and 7 – particularly, excepted packages, activity limits, types of radioactive materials (i.e. LSA, Special Form) and determining the Transport Index.</b>  <b>For Groups B and C</b> - Training for the acceptance of non-DG need not cover the detailed criteria, but should be sufficient to determine whether an item is classified as dangerous or not. i.e. the student should be able to determine that a compressed cylinder of Nitrogen at 180 kPa at 20°C is not dangerous or that a liquid with a flashpoint of 24°C is class 3 but need not know the packing group.  <i>Note: Presenting examples of genuine, inaccurate MSDSs will convey the importance of classification as a tool in screening out hidden DG.</i>
15) Parts 3;1 and 3;2, Table 3-1 and Part 3;3 of the Technical Instructions respectively. <i>(General arrangement of the DG List, The Dangerous Goods List and Special Provisions).</i>	15) The dangerous goods list: a. information provided in the list; b. abbreviations used; c. n.o.s entries.	<b>Groups A, B, C and F</b> – Coverage of the various columns in the list and how they are interpreted is required. Coverage of the abbreviations used and reference to the legend is required. Coverage of Special Provisions is required to give employees an understanding that there may be occasions when prohibited DG may travel on aircraft.  Courses also need to cover Packing Groups and associated indication of danger as well as distinction in numbering between radioactive and non-radioactive DG.  <i>Note: Especially relevant to flight crew are the Proper Shipping Names and Emergency Response Code. Also need to clearly address for flight crew that nos*goods must have the technical name on the Notice to Captain (NOTOC).</i>
16) Part 4 of the Technical Instructions. <i>(Packing Instructions).</i>	16) Packing Instructions including general packing requirements.	<b>Groups A and F</b> - Coverage of Limited Quantity, inner, outer and combination packagings. Difference between package, packaging and packing. Reference to State and operator variations. Determination and application of Q values and compatibility when put different DG in one package.  Acceptance level and full shipper courses should cover a representative sample of characteristic hazards and classes and associated packagings through both the course work and exam i.e. Class 2, a liquid (3 or 8), a toxic or class 5, a class 7, a couple of class 9s, passenger or cargo aircraft only, single and combination packagings, packing groups I through III, limited quantities etc.  <i>Note: Frequent course omissions and student failure to understand are Ullage and Absorbent Material Requirements in the general component and the general requirements and general packing provisions at the commencement of the explosives and gases packing instructions.</i>
17) Part 5 of the Technical Instructions. <i>(Shipper’s Responsibilities).</i>	17) Shipper’s responsibilities: a. general; b. package markings; c. package labelling; d. identification of labels; e. documentation (shipper’s declaration).	<b>Groups A and F</b> - are required to cover all of the shipper’s responsibilities.  <b>For other employees</b> - (and freight shed security screeners) - labels are required on packages of DG both to identify the contents and to aid handling. The training should provide for illustration of all the hazard and handling labels; should depict the labels so that the specific hazard can be identified should a damaged package be found; should explain what the symbols and the colours on the labels mean.  An explanation of the handling labels is also required with emphasis given to recognition of the ‘Cargo Aircraft Only’ handling label. Training needs to include the information that an operator’s employee may replace a label on a package if it becomes detached or damaged during transit (this is only possible after the acceptance process).

<p>18) Part 7 of the Technical Instructions. <i>(Operator's responsibilities).</i></p>	<p>18) Operator's responsibilities:</p> <ol style="list-style-type: none"> <li>a. acceptance procedures;</li> <li>b. storage, loading and segregation;</li> <li>c. provision of information to Pilot in command;</li> <li>d. emergency procedures.</li> </ol>	<p><b>All employees of operators and GHAs</b> - Training should confirm that apart from the DG that is permitted to be carried by passengers and crew, DG must not be carried in an aircraft cabin occupied by passengers or on the flight deck.</p> <p><b>a. Acceptance procedures – Group A employees</b> - Use of current checklist, completion of all items, use in concurrent inspection of package and documentation.</p> <p><b>b. Storage, Loading and Segregation - Groups A, B and C</b> - Temporary storage in freight shed, continue to apply segregation principles and measures to prevent inadvertent loading of cargo aircraft only goods onto passenger aircraft. Also need to cover inspection and decontamination.</p> <p>Table 7-1 of the TIs details the classes/divisions of DG that must be segregated from each other when loaded on an aircraft. An explanation of Table 7-1 or the equivalent Table 9.3.A from the IATA should be provided. Packages of DG must be secured in a manner that will prevent movement and damage in flight, including when loaded in a unit load device (ULD). Packages which are noted to be damaged or leaking in an aircraft must be removed and any adjacent baggage or cargo and the aircraft and ULD (if applicable) must be inspected for contamination, which if found must be removed. There are special responsibilities of the operator in respect of damaged or leaking packages of infectious substances and radioactive material, which includes the involvement of appropriately, qualified personnel. Employees should be made aware of the appropriate procedures for dealing with these items and referred to the section of the DG manual where these procedures are documented. Packages of radioactive material must be loaded in such a manner that the exposure to radiation is kept to acceptable levels for passengers/crew and unexposed film. Similar consideration needs to be applied to toxic materials, livestock, and dry ice.</p> <p><b>Groups A and C</b> - The DG manual has tables of maximum Transport Index limits for each of the aircraft operated by the airline. These should be explained to crew. The limitations on loading magnetised material and dry ice should also be covered. Packages of DG must be inspected for signs of damage or leakage immediately prior to loading and after unloading. How this responsibility is delegated within the airline and how it is validated (Captain's signature on NOTOC).</p> <p><b>c. Provision of information to the pilot in command – Group C employees</b> - All DG (other than excepted quantities) carried as cargo must be notified to the Pilot in Command (P-I-C) in written form. The main details should be highlighted to crew (with actual examples of the pro-forma used by the operator). Flight crew <b>must</b> be able to interpret the NOTOC and understand the relevance of the Emergency Response Drill Codes. The P-I-C is required to sign this document and retain a copy, which is held on the flight deck. Only one copy can be held for each sector and a new NOTOC provided at each transit port.</p> <p><b>d. Emergency procedures</b> – relevant to the employee group.</p> <p><b>Groups A, B, C and D employees</b> – ground emergency procedures.</p> <p><b>Group C and D employees</b> - If unlawful DG is detected in the cabin the crew should be trained in the appropriate response. For operator's crew this should also include the in-flight spill kit.</p> <p>Students should be made aware of the possibility of a passenger having forbidden DG (or even goods that they are permitted to have) causing an incident on the ground or in flight. An operator should have procedures for dealing with this eventuality and these should be demonstrated to crew in detail. There is also the possibility that an incident may arise in general cargo and be caused by DG. The training should cover the procedures that are applied.</p> <p>If an operator provides for a DG Spill Kit to be carried on board, students should be made aware of the location and contents. Correct use of the items (through simulation of an incident) would enhance understanding and knowledge. As part of DG Emergency Procedures, some references to actual DG incidents i.e. Valujet or de-identified occurrences from the operator's own incident reports would provide some interest and encourage comment and feedback from crew (not necessary but recommended).</p>
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<p>19) Part 6 of the Technical Instructions. <i>(Packaging nomenclature, marking requirements and tests).</i></p>	<p>19) Packagings: a) nomenclature and codes; b) markings and what they mean; c) requirements; d) performance tests.</p>	<p><b>Group A and F employees</b> – Should cover the different markings and what they are. Students should be given examples of where UN specification markings do not marry up with the package (i.e. wooden box with 4G marking - <i>it happens!</i>).</p> <p>Obtain and present copies of performance test results – demonstrate and reinforce that just putting any old inner in a 4G box doesn't render it as complying with the packaging performance test.</p> <p>Class 7 courses also need to pick up Type A, B(U) and B(M) packagings and relevant approvals.</p>
<p>20) Part 8 of the Technical Instructions. <i>(Provisions concerning passengers and crew).</i></p>	<p>20) Provisions concerning passengers and crew including information to passengers.</p> <p><i>Note: This module is compulsory for all dangerous goods courses.</i></p>	<p><b>All employees – all courses</b> - With the exception of a specified list of permitted items, dangerous goods are forbidden for carriage by passengers and crew. Operators and screening authorities should have procedures for dealing with passengers or crew who may, unknowingly, try to board an aircraft with forbidden DG.</p> <p>The permitted list Table 2.3.A of the IATA DGRs should be provided either as a reference or the information given directly in the training. As part of this training, employees should be made aware of the “Operator Approved” procedure, which should be documented in the DG manual. Operators must ensure that information is promulgated in such a manner that passengers are warned as to the types of DG which they are forbidden from transporting aboard an aircraft.</p> <p>Training should include how the operator achieves this and as a minimum it should include information provided with the ticket and notices at airports.</p> <p><i>Note: There is value in covering why Dry Ice should be vented and the procedures in IATA for preparing camping stoves and wheelchairs.</i></p>
<p>21) Attachment 1 to the Technical Instructions. <i>(Lists of Proper Shipping Names).</i></p>	<p>21) Proper Shipping Names.</p>	<p><b>Groups A, C and F</b> – The numerical sequence of the DG List – the corresponding IATA reference is at 4.3. Also make note of the correct reference to DGs is the Proper Shipping Name. This is what appears on the Shipper's Declaration and NOTOC.</p>
<p>22) Attachment 3 to the Technical Instructions. <i>(Notified variations from the Instructions).</i></p>	<p>22) State and operator variations.</p>	<p><b>Groups A, C and F</b> - States (governments) and operators can place additional restrictions on the carriage of dangerous goods by air (as prescribed by the TIs and IATA DGRs). Relevant variations and any operator specific variations should be made known to employees.</p>

## APPENDIX D

### AMPLIFICATION OF SYLLABUS ITEMS FOR DANGEROUS GOODS COURSES WHICH DO NOT REQUIRE CASA APPROVAL

Table 92.135-2 Syllabus for training Courses requiring CASA approval	Reference: Annex B to Advisory Circular AC 92.3(0) (December 2005)	General explanation and expansion of requirement for syllabus item for various groups of employees
1) The requirement of the Act and these Regulations (Part 92) relating to consignment and carriage of dangerous goods.	1) The Act and Regulations 1A) Statement of Contents provisions of CASR 92.070 and 92.075.	<p><b>Act and Regulations - All employees</b> - Provide an overview of the international regulatory framework of ICAO and IATA. Students need to understand the interrelationship between ICAO/IATA and CASA. Training needs to include coverage of the Act (sections 23, 23A, 23B and 29); Part 92 and the penalties that apply. The definition of “strict liability” should be included. Training requirements must be made known (e.g.: regulatory requirement and what level of training is being given to these employees and how often). Pertinent regulations should be discussed as they relate to an operation i.e.: requirement for DG manual. Regulations 92.040, 92.045 and 92.055 and reporting of Incidents 92.065 are only a small example of what should be highlighted from the regulations. All employees should be aware of the compliance aspects and that responsibility to comply not only rests with the operator but with individuals as well.</p> <p><b>Statement of contents – shed, ramp and pick-up drivers</b> - covered in both the Act and Part 92. Should cover the requirements for a description of contents, a signature (or equivalent) and/or declaration of no-dangerous goods. Should cover employee’s entitlement to rely on that signature/declaration and the impact of penalties should the signature/declaration be absent when hidden DG are discovered.</p>
2) If the course is to be undertaken by an operator’s employee, or deemed employee, the purpose, contents and distribution requirements of the operator’s DG manual.	2) The operator’s Dangerous Goods Manual - purpose, contents and distribution.	<p><b>All operators and GHA employees</b> - This is intended to cover the requirements relating to a DG manual rather than the specific content. Regulation 92.055 requires that operators take steps to ensure employees are made aware of the content of the operator’s DG manual relevant to their duties before the employee first performs those duties. There are a number of areas where the procedures of the operator may need to be made specific. These could be in relation to company policies, passenger baggage where there are references to “operator approval”, certain classes of DG that are not to stowed in certain lockers or holds, actions in the event of an in-flight emergency, reporting of DG accidents and incidents and reporting of undeclared DG. It is recommended that operator-specific courses be tailored to address these areas.</p>
3) Parts 7;1.4, 7;5 and 7;6 of the TIs (the kinds of cargo or passenger baggage that are likely to be, or contain, DG).	3) Kinds of cargo/passenger baggage likely to be dangerous goods.	<p><b>All employees</b> - Approximately 95% of all DG incidents relate to undeclared DG in cargo and forbidden items in passenger bags. Training should include information on hidden hazards and what may be found under general descriptions. This would pick up the usual suspects (surfboards, toolboxes etc)</p>
4) Methods used to identify cargo containing dangerous goods.	4) Methods used to identify cargo that could be dangerous goods.	<p><b>Shed, ramp and pick-up drivers</b> - Training in this item should emphasise the five senses in identifying hidden or mis-declared DG with common representative examples based on experience. It should also cover sourcing manufacturer’s data through 1800 numbers, the internet and obtaining MSDSs; boxes with old labels; strange smells; content description not matching the feel of the box; usage of UN Specification packaging for general freight; etc.</p> <p><i>Note: this item and classification (item 14) are crucial in equipping the employee to detect and identify potential hidden and mis-declared DG.</i></p>
5) The manner in which DG in each class of dangerous goods mentioned in the TIs could jeopardise the safety of an aircraft or anyone on it.	5) Risk to aircraft and occupants associated with each of the nine classes of DG.	<p><b>Shed, ramp and pick-up drivers</b> - Training should highlight that the classes of DG indicate their potential for injury and damage. This should include information on the risks to health, safety, property and the environment should there be an incident involving one of the nine classes and pertinent divisions of DG.</p>



6) The matters in the Foreword to the Technical Instructions.	6) General Philosophy on the carriage of DG.	<b>All employees</b> - When giving students an overview of the general philosophy on transporting DG by air the basic principles that minimise risk should be highlighted. These are; identification of items and substances according to risk, restricting and forbidding some items from air travel, packing and packaging requirements and quantity control, marking and labelling, loading and stowage restrictions, documentation, emergency procedures, reporting of incidents and accidents, and relevant training.
7) Part 1;2.2 of the Technical Instructions. ( <i>Exceptions for DG of the operator</i> ).	7) DG of the operator.	<b>Shed, ramp and pick-up drivers</b> - A number of airworthiness and operational items are DG e.g.: chemical oxygen generators, escape slides/rafts, batteries etc, but when fitted to the aircraft are not subject to the requirements of the TIs and Part 92. Some DG are allowed to be carried for catering or cabin service supplies. The training should cover that replacement items and those removed for replacement need to be consigned as DG.
8) Part 1;3.1 of the Technical Instructions. ( <i>Definitions</i> ).	8) Definitions.	<b>All employees</b> - Definitions of commonly used terms from a DG perspective. A number of relevant definitions such as ‘Dangerous Goods’, ‘Dangerous Goods Accident’ and ‘Dangerous Goods Incident’, ‘Passenger aircraft’, ‘Cargo aircraft’ etc should be given to aid understanding of the relevant requirements.
9) Part 2 of the Technical Instructions. ( <i>Classification of Dangerous Goods</i> ).	9) The nine classes of dangerous goods.	<b>All employees</b> - Employees need to appreciate the different types of DG and how they are classified, in order to assist in recognising them if they are found in cargo and /or baggage.
10) Part 5;3 of the Technical Instructions. ( <i>Labelling</i> ).	10) Recognition of Dangerous Goods Labels.	<b>Shed, ramp, pick-up drivers and freight shed security screeners</b> - labels are required on packages of DG both to identify the contents and to aid handling. The training should provide for illustration of all the hazard and handling labels; should depict the labels so that the specific hazard can be identified should a damaged package be found; should explain what the symbols and the colours on the labels mean.  An explanation of the Handling labels is also required with emphasis given to recognition of the ‘Cargo Aircraft Only’ handling label. Training needs to include the information that an operator’s employee may replace a label on a package if it becomes detached or damaged during transit (this is only possible after the acceptance process).
11) Part 7;2 of the Technical Instructions. ( <i>Storage and Loading</i> ).	11) Storage and Loading of Dangerous Goods	<b>Storage, Loading and Segregation</b> – During temporary storage in a freight shed, continue to apply segregation principles and measures to prevent inadvertent loading of cargo aircraft only goods onto passenger aircraft. Also need to cover inspection and decontamination.  Table 7-1 of the TIs details the classes/divisions of DG that must be segregated from each other when loaded on an aircraft. An explanation of Table 7-1 or the equivalent Table 9.3.A from IATA should be provided. Packages of DG must be secured in a manner that will prevent movement and damage in flight, including when loaded in a ULD. Packages which are noted to be damaged or leaking in an aircraft must be removed and any adjacent baggage or cargo and the aircraft and ULD (if applicable) must be inspected for contamination, which if found must be removed. There are special responsibilities of the operator in respect of damaged or leaking packages of infectious substances and radioactive material, which includes the involvement of appropriately, qualified personnel. Employees should be made aware of the appropriate procedures for dealing with these items and referred to the section of the DG manual where these procedures are documented. Packages of radioactive material must be loaded in such a manner that the exposure to radiation is kept to acceptable levels for passengers/crew and unexposed film. Similar consideration needs to be applied to toxic materials, livestock, and dry ice.  Should also cover ground emergency procedures; usage of DG spill kit; including dyking, personal protective equipment (PPE), salvage drums etc.  Some references to actual DG incidents i.e. Valujet or de-identified occurrences from the operator’s Incident reports would provide some interest and encourage comment and feedback from crew (not necessary but recommended).

<p>12) Part 8 of the Technical Instructions. <i>(Provisions concerning passengers and crew).</i></p>	<p>12) Provisions concerning passengers and crew including information to passengers.</p> <p><i>Note: This module is compulsory for all dangerous goods courses.</i></p>	<p><b>All employees – all courses</b> - With the exception of a specified list of permitted items, dangerous goods are forbidden for carriage by passengers and crew. Operator and screening authorities should have procedures for dealing with passengers or crew who try to board an aircraft with forbidden DG.</p> <p>The permitted list Table 2.3.A of the IATA DGRs should be provided either as a reference or the information given directly in the training. As part of this training, employees should be made aware of the “Operator Approved” procedure, which should be documented in the DG manual. Operators must ensure that information is promulgated in such a manner that passengers are warned as to the types of DG which they are forbidden from transporting aboard an aircraft.</p> <p>Training should include how the operator achieves this and as a minimum it should include-information provided with the ticket and notices at airports.</p> <p><i>Note: There is value in covering <b>why</b> Dry Ice should be vented and the procedures in IATA for preparing camping stoves and wheelchairs</i></p>
<p>13) Attachment 3 to the Technical Instructions. <i>(Notified variations from the Instructions).</i></p>	<p>13) Relevant State and operator variations.</p>	<p><b>All employees</b> - States (governments) and operators can place additional restrictions on the carriage of dangerous goods by air (as prescribed by the TIs and IATA DGRs). Relevant variations and any operator specific variations should be made known to employees.</p>