

## 出國報告(出國類別：訓練)

# 參加國際空運協會(IATA)舉辦之「一般貨物接收 及處理人員之危險物品規則訓練(Dangerous Goods Regulations (DGR) for General Cargo Accepting and Processing Personnel)」 課程數位學習報告書

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派赴國家：臺灣，中華民國

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## 壹、目的

國際民航組織(ICAO)於 2019 年第 27 次危險物品委員會獲致共識，空運危險物品作業人員訓練改採以能力為基礎之訓練與評估方法(Competency-Based Training and Assessment Approach, CBTA)執行，續於 2021-2022 年危險物品航空安全運送技術規範(TI)正式納入相關規範，並自 2023 年 1 月 1 日起正式實施。CBTA 修改以作業功能為導向，依照作業需求設計課程，使危險物品訓練更貼合作業需求，以解決現行訓練科目過於概略而可能無法完全滿足各類危險物品作業人員處理業務所需技能之問題。

自 2023 年起，國際民航組織(ICAO)及國際空運協會(IATA)將空運危險物品訓練分為 10 類作業人員，包含：危險物品貨主、一般貨物接收及處理人員、危險物品貨物接收及處理人員、貨物處理及裝載人員、運務人員、裝載規劃人員、前艙組員、簽派人員、後艙組員及安檢人員，國際空運協會(IATA)並針對前揭更新，開設相關線上及實體課程，此次參加國際空運協會(IATA)舉辦之危險物品貨物接收及處理人員線上課程，以持續強化我國危險物品空中安全運輸作業。

## 貳、過程

- 一、訓練名稱：參加國際空運協會(IATA)舉辦之「一般貨物接收及處理人員之危險物品規則訓練(Dangerous Goods Regulations (DGR) for General Cargo Accepting and Processing Personnel)」課程

二、訓練日期：111年12月10日

三、主辦單位：國際空運協會(IATA)

四、舉行地點：臺灣，中華民國

## 參、CBTA 基本概念

自2023年起，國際民航組織(ICAO)及國際空運協會(IATA)決定將空運危險物品作業人員訓練改採以能力為基礎之訓練與評估方法(Competency-Based Training and Assessment Approach, CBTA)，以下茲就CBTA進行簡介

### 一、何謂能力(Competency)

(一)能力(Competency)是人員各項表現中得以用於預測工作成功表現的一環。它可透過觀察組織相關知識、技能和態度在特定條件下執行活動或任務的行為表現得知。

(二)可觀察行為(Observable behaviours)是可以觀察到與工作相關的單一行為，可能是可衡量的，也可能是不可衡量的。

(三)這些行為反應了相關的知識(knowledge)、技能(skills)及態度(attitudes):

1.知識(knowledge):用於使一個人能夠運用技能和態度以及回憶事實、識別概念、應用規則、程序或原則之特定資訊。

2.技能(skills):技能是執行某項活動或行動的能力。

3.態度(attitudes) 態度是一種持續的內在心理狀態或

傾向，影響個人對某些對象、人或事件的個人行為選擇，這是可以學習的。

## 二、CBTA 評估原則

- (一) 定義個別職務所需相關能力。
- (二) 工作能力和訓練、工作要求的績效和評估項目之間需有明確的關聯性。
- (三) 工作能力的制定方式確保學員可以在個別職務的工作環境中得到一致的訓練、觀察和評估。
- (四) 學員能夠成功的示範並符合所需能力的標準。
- (五) 在作業程序中的相關人員，要通曉其工作能力的標準。
- (六) 評估能力要有明確的績效標準。
- (七) 工作能力表現的證據是有效且可信的。
- (八) 講師和其他的評估員的評估作業需要高度可信的一致性。
- (九) 能力評估建立於多方的觀察。
- (十) 個人展現所有所需能力的綜合表現達到指定的標準

## 肆、訓練課目

此次參加國際空運協會(IATA)舉辦之「一般貨物接收與處理人員之危險物品規則訓練 (Dangerous Goods Regulations (DGR) for General Cargo Accepting and

Processing Personnel)」課程，主要受訓對象為接受一般貨物(非危險物品)之作業人員，課程主要分為「課程 0 危險物品認知」、「課程 3 處理/接收貨物」及「課程 7 蒐集安全資訊」。



## Dangerous Goods Regulations

### H.6.2 Function: Personnel Responsible for Processing or Accepting Goods Presented as General Cargo

Personnel responsible for processing goods presented as general cargo must be competent to perform tasks aimed at preventing undeclared dangerous goods from being accepted into air transport and loaded on an aircraft. They may work for freight forwarders, ground handling agents or operators. Personnel would need to have relevant knowledge to competently perform these tasks. They may need additional knowledge and be capable of performing at a more advanced skill level depending on the actual function/tasks assigned. The following are tasks that these personnel typically perform and for which training and assessment would therefore be required.

**TABLE H.6.2.A**  
Sample Task List for Personnel Responsible for Processing or Accepting Goods Presented as General Cargo

Function: Personnel responsible for processing or accepting goods presented as general cargo		Processing/accepting cargo
0	Dangerous goods applicability	*
0.1	Recognising dangerous goods	*
0.1.1	Understand the definition	*
0.1.2	Recognise the legal framework (global, national)	*
0.1.3	Identify the application and scope	*
0.1.4	Differentiate hazard and risk	*
0.2	Understanding the general situations	*
0.2.1	Develop a sense of forbidden dangerous goods	*
0.2.2	Recognise potential hidden dangerous goods	*
0.2.3	Familiarise with passenger provisions	*
0.3	Identifying different roles and responsibilities	*
0.3.1	Clarify the individual and collective role of the supply chain stakeholders	*
0.3.2	Recognise the impact of State A operator variations	*
0.4	Understanding the importance of classification & packaging	*
0.4.1	Identify the general information about classes, divisions	*
0.4.2	Understand general principles of packing groups	*
0.4.3	Consider multiple hazards	*
0.5	Understanding hazard communication	*
0.5.1	Recognise the basic marking requirements	*
0.5.2	Recognise the basic labelling requirements	*
0.5.3	Identify the required documentation	*
0.6	Familiarising with emergency response	*
0.6.1	Create awareness about general emergency procedures	*
0.6.2	Understand the employer's emergency response requirements	*
3	Processing/accepting cargo	***
3.1	Process/accept cargo other than dangerous goods	***
3.1.1	Check documentation for indications of hidden/undeclared dangerous goods	***
3.1.2	Check packages for indications of hidden/undeclared dangerous goods	***
7	Collecting safety data	**
7.1	Report dangerous goods accidents	**
7.2	Report dangerous goods incidents	**
7.3	Report undeclared/miss-declared dangerous goods	**
7.4	Report dangerous goods occurrences	**

## 伍、訓練內容

本次訓練共分 3 個課程及測驗，以下就有關重點摘錄如下：

### 一、(課程 0)危險物品認知

課程教材請參閱附件 1

(一)危險物品定義：危險物品是對健康、安全、財產、環境會造成危害的物質或物品。

#### (二)航機起飛前

- 1.運務人員向旅客確認未攜帶或託運未經許可之危險物品。
- 2.貨運人員確認所收運之貨物未含未申報或隱藏性危險物品。
- 3.安檢人員確認行李、貨物及郵件未含未申報或隱藏性危險物品。
- 4.作業人員依據 IATA DGR 之相容性規定，作好危險物品隔離，並確認儲存或裝載之貨物未含未申報或隱藏性危險物品。
- 5.執行起飛前檢查。

#### (三)航機落地後

- 1.執行落地後檢查。
- 2.確認未含申報錯誤或未申報之危險物品。
- 3.危險物品適當裝載及隔離。

#### (四)貨物供應鏈

託運人→地面運輸業者→航空貨運承攬業→航空貨物集散站經營業→民用航空運輸業者。



#### (五)危險物品安全運送原則

- 1.危險物品正確分類。
- 2.注意空運限制。
- 3.危險物品正確包裝。
- 4.作業人員適當訓練。
- 5.危險物品文件。
- 6.隱藏性危險物品識別。
- 7.意外事件通報。

#### (六)國際規範

- 1 聯合國(UN) 危險物品運送規則(model regulations on the transport of dangerous goods)。
- 2.國際原子能總署(IAEA) 放射性物質安全運送規則(Regulation for the safe transport of Radioactive Material)。
- 3.國際民航組織(ICAO) 危險物品航空安全運送技術規範(Technical Instruction for the Safe Transport of Dangerous Goods by Air, TI)。
4. 國際空運協會(IATA) 危險物品規則(Dangerous Goods Regulations, DGR)。

#### (七)CBTA 訓練要求

- 1.因材施教：因應人員任務特性予以分類，包括：
  - (1)危險物品貨主。
  - (2)一般貨物接收及處理人員。
  - (3)危險物品貨物接收及處理人員。
  - (4)貨物處理及裝載人員。

- (5)運務人員。
  - (6)裝載規劃人員。
  - (7)前艙組員。
  - (8)簽派人員。
  - (9)後艙組員。
  - (10)安檢人員。
- 2.每 24 個月複訓。
  - 3.訓練完應接受測驗。
  - 4.執行持續性評估：針對作業人員之知識(knowledge)、技能(skills)及態度(attitudes)三方面進行評估，以確認作業人員足以擔當所賦予之危險物品空運作業角色。

#### (八)空運限制

- 1.危險物品運輸有一些限制條件，如禁止上機之危險物品、僅限貨機裝載之危險物品及可於客貨機裝載之危險物品。
- 2.隱藏性危險物品可能為組員及乘客攜帶的物品或者以貨運交寄的貨物，作業人員必須時刻保持識別隱藏性危險物品的警覺。
- 3.禁止空運：某些危險物品因為以空運交寄之風險性太高，國際民航組織及國際空運協會禁止其空運，在 IATA DGR 第 4.2 節(藍頁)中，會標記不得以「貨機」、「客機」及「限量包裝」等形式運送。
- 2.僅限貨機裝載：某些危險物品因為以「客機」載運的風險太高，或該筆危險物品的載運量超過客機允許量(如該危險物品以客機載運時，每件不得超過 1 公斤)，國際民航組織及國際空運協會限制前揭危險物品僅能以「貨機」裝載。

3.客貨機皆可裝載：若危險物品以空運運送之風險較低時，則得以「客機」或「貨機」運送，但仍須遵守危險物品運輸之包裝、標籤、標記與裝載等規定。

4.組員及旅客可攜帶或託運上機之危險物品(IATA DGR 第 2.3 節)：

舉例：

- 酒精性飲料：酒精濃度超過 24%但小於等於 70%之酒精性飲料每人攜帶的總淨量不得超過 5 公升，可攜帶上機或以託運行李交寄。
- 非放射性梳妝用品(消毒酒精)：單瓶不超過 0.5 公升，每人可攜帶總量不超過 2 公升(如攜帶 4 個 0.5 公升之消毒酒精)，可攜帶上機或以託運行李交寄。
- 乾冰：每個人最多可攜帶 2.5 公斤，以手提行李或託運行李交寄，以託運行李運送時，每個包裝必須標示「乾冰」或「固態二氧化碳」(DRY ICE 或 CARBON DIOXIDE, SOLID)以及乾冰的淨重或其淨重不超過 2.5 公斤之說明。
- 香煙打火機、安全火柴：每人最多限帶 1 個香菸打火機或 1 盒安全火柴，僅可隨身攜帶。
- 供醫療使用的氧氣瓶或氣瓶：須經航空公司同意始可裝載上機，每 1 個氣瓶毛重不能超過 5 公斤；裝有氣體之氣瓶、閥和調節器必須要保護好以避免損壞而導致內容物散發；可攜帶上機或以託運行李交寄，惟須注意應填寫機長通知書告知機長氧氣瓶(或氣瓶)數量與裝載於航空器內之位置。

5.郵件：原則不得載運危險物品，參照 IATA DGR 第 2.4 節。

6.航空公司航材及因飛航任務裝載上機之危險物品：如滅火器

與氧氣產生器等，可參照 IATA DGR 第 2.5 節。

#### (九) 託運人責任

1. 託運人將危險物品交付空運前，應確認非屬禁止空運者，並應依國際民航組織危險物品航空安全運送技術規範(ICAO TI)及國際空運協會危險物品處理規則(IATA DGR)規定，予以正確分類、識別、封裝、標示、申報及檢附申報單及其他運送文件。
2. 提供員工訓練及相關資訊。
3. 控管貨物。
4. 危險物品運送文件保存至少 3 個月。

#### (十) 航空器所有人或使用人責任

1. 航空器所有人或使用人對於危險物品，應依 ICAO TI/IATA DGR 規定，予以正確接收、貯存、裝載、事件報告、裝載與檢查。
2. 事件報告。
3. 員工訓練。
4. 對旅客及託運人之資訊提供。
5. 危險物品運送文件保存至少 3 個月。

#### (十一) 危險物品分類

1. 第 1 類：爆炸物品。
2. 第 2 類：氣體。
3. 第 3 類：易燃液體。
4. 第 4 類：易燃固體、自燃物質、遇水釋放易燃氣體之物質。
5. 第 5 類：氧化物、有機過氧化物。

- 6.第 6 類：毒性物質、傳染性物質。
- 7.第 7 類：放射性物質。
- 8.第 8 類：腐蝕性物質。
- 9.第 9 類：其他危險物品。

#### (十二)包裝群組

- 1.第 3 類、第 4 類、第 6.1 組、第 8 類才有包裝群組分別。
- 2.包裝群組 I:代表危險性高→要用 X 級以上的包裝件(強度強)。  
包裝群組 II:代表危險性中→要 Y 級以上的包裝件(強度中)。  
包裝群組 III:代表危險性低→可用 Z 級以上的包裝件(強度弱)。

#### (十三)差異條款

各國及航空公司之差異條款，可參照 IATA DGR 第 2.8 節，如 USG-11 係指美國政府第 11 條差異規定，CI-01 係指中華航空第 1 條差異規定。

#### (十四)包裝

##### 1.單一包裝 VS 組合包裝：

- (1)單一包裝是單獨一個包裝，沒有外包裝箱(如單獨使用鋼桶或塑膠罐裝載危險物品)。
- (2)組合包裝是有內包裝(如玻璃/塑膠瓶罐)與 UN 外包裝(如紙箱)組合而成之包裝。

##### 2.All pack in one VS OVERPACK：

- (1)All pack in one 是為了節省 UN 包裝件的使用，把不同類的危險物品裝載在一個 UN 外包裝(如紙箱)內，這時須注意同箱內危險物品之相容性(可查閱 IATA DGR 9.3A 表)，另應計算該箱的 Q 值，以避免超過該箱可容納之危

險物品裝載數量。

(2) OVERPACK 是為了運送之方便，把原來即可單獨運送之危險物品包裝(如單獨鋼桶)，放在木棧板上後再以綁帶或膠膜固定。

(3) OVERPACK 就算把外面的綁帶、膠膜和木棧板拆掉，還是可以單獨運送，但 All pack in one 若把 UN 外包裝移除後，因為缺少了 UN 包裝件，所以不允許單獨運送。

### 3. 一般標記

(1) 託運人姓名地址。

(2) 收貨人姓名地址。

(3) UN/ID no.。

(4) 運送專用名稱。

(5) UN 包裝件標記。

### 4. 標籤

(1) 危險性標籤：危險物品九大類標籤。

(2) 處理指示標籤：限貨機裝載標籤、方向指示標籤、遠離熱源標籤等。

### 5. 標記的用意

(1) 標示包裝件數。

(2) 標示包裝件符合標準(UN)。

(3) 提供安全處理與貯存資訊。

(4) 標示該危險物品之危險性。

### 6. 文件

(1) 空運提單。

(2) 危險物品申告書(DGD)。

## 二、(課程 3) 處理/接收貨物

課程教材請參閱附件 2

### (一)隱藏性危險物品

- 1.沒有危險物品運送文件(DGD)的貨物。
- 2.包裝箱沒有危險物品標籤或標示的貨物。
- 3.包裝箱有 GHS 標示的貨物。
- 4.先確認相關資訊(如安全成份分析表 SDS)，確認後方可運送，  
並須符合 IATA DGR 規範。
- 5.作業人員應接受適當訓練以利識別。

舉例：

- 鐵管：可能含磁性。
- 潛水用品：可能含氣瓶或水下加熱裝置。
- 疫苗：可能含乾冰或冷凍液態氣體。
- 工具箱：可能含有氣瓶或可燃性液體。

### (二)未申報之危險物品

- 1.沒有危險物品運送文件(DGD)的貨物。
- 2.包裝箱沒有危險物品標籤或標示的貨物。
- 3.包裝箱有 GHS 標示的貨物。
- 4.可參照 IATA DGR 第 2.2.4 節及 Table B.4.A(GHS)予以識別。

舉例：

- 包裝箱上印有化學工廠、油漆、漂白水等字樣。
- 使用 UN 包裝件但卻未申報之貨物。
- 液態瓶罐。

### 三、(課程 7)蒐集安全資訊

課程教材請參閱附件 3

#### (一)緊急應變

- 1.所有涉及危險物品運送之人員皆須受訓。
- 2.人員應熟悉緊急應變程序。
- 3.緊急聯絡電話保持常新。
- 4.定期演練。

#### (二)緊急應變程序

- 1.立即通報相關人員。
- 2.識別發生溢漏/燃燒之危險物品。
- 3.隔離該件貨物。
- 4.淨空並管制該區域。
- 5.尋求專業應變單位之支援(消防、環保署、原能會)。
- 6.各機場應有危險物品緊急應變程序。

#### (三)緊急應變注意事項

- 1.若人員遭污染，儘速以大量清水清洗。
- 2.移除受污染衣物。
- 3.禁止飲食或抽煙。
- 4.手不接觸眼口鼻。
- 5.儘速尋求醫療協助。

#### (四)資訊提供

- 1.應提供作業人員急緊急應變程序。
- 2.緊急應變程序應隨時可取得。



- 3.發生意外事件時，航空公司須將危險物品相關資訊提供予緊急應變單位。
- 4.航空公司應在相關手冊內規範緊急應變程序。
- 5.航空公司應提供作業人員緊急應變相關資訊。

(五)發生危險物品意外事件時，航空公司應通報

- 1.該國相關當局。
- 2.涉及該事件之相關國家當局(起運國、目的地國)。
- 3.緊急應變單位(消防、醫療、環保署、原能會)。

## 陸、心得及建議

國際民航組織(ICAO)於 2019 年第 27 次危險物品委員決議將空運危險物品作業人員訓練改採「以能力為基礎之訓練與評估方法」(Competency-Based Training and Assessment Approach, CBTA)執行，業於 2021-2022 年危險物品航空安全運送技術規範(TI)納入相關規範，並自 2023 年 1 月 1 日起正式實施。

本次實施 CBTA 前，ICAO TI 及 IATA DGR 係將空運危險物品訓練分為 12 類作業人員，其中第 6 類人員之訓練涵蓋所有訓練科目，所具備知能尚可督導其他類別人員。惟於 CBTA 新制實施後，ICAO Doc.10147「CBTA 訓練及評估指導文件」及 IATA DGR 均將空運危險物品訓練分為 10 類作業人員，包含：危險物品貨主、一般貨物接收及處理人員、危險物品貨物接收及處理人員、貨物處理及裝載人員、運務人員、裝載規劃人員、前艙組員、簽派人員、後艙組員及安檢人員，而各類人員所應接受之訓練

課程不一，爰本組選派適當人員分別參加前揭相關課程，職此次參加的為一般貨物接收及處理人員危險物品訓練。

旨揭訓練採線上課程授課，上課內容分為數個單元課程，每個單元課程內含數十頁簡報(如附件 1 至 3)，每頁簡報須經瀏覽或俟旁白解說完成後，才能續看下一頁；須待前一單元課程全部觀看完畢後，才能選取下一課程進行研讀；另課程訓練視窗，國際空運協會(IATA)已以程式設定焦點，若電腦主視窗非未處於該線上課程訓練視窗時(亦即一邊聽課，一邊處理別的事務)，則課程會立即暫停，以防學員分心，增加學習專注度，建議可列入本局及民航業者未來規劃線上課程之參考。此外，因此次課程內容多有旁白講述(類似線上講師)及隨堂小測驗(QUIZ)，故課程內容表訂雖為 4 小時，但實際上課時數約為 8 小時(含操作及等待點閱下一張簡報時間)。

此次 IATA 線上課程測驗，學員可執行測驗 2 次(亦即有補考 1 次之機會)，限時 75 分鐘，及格分數 80 分，題目為是非、單選及複選共 30 題，每題配分 3.3 分，考試時雖可參考相關資料，惟題目用字充滿文字陷阱(考題如附件 4)，許多題目模稜兩可，對非英語系國家是一大挑戰。另值得注意的是，此次 IATA 線上課程一旦測驗通過，雖可立即取得及格證書(如附件 5)，然該課程即無法再次觀看，建議後續若要參加 IATA 線上課程的同仁，於測驗前可先將教材內容截圖存檔，俾利後續參考與複習。

因應疫情，國際空運協會(IATA)持續推廣線上課程或

視訊課程，減少人員近距離之接觸，因沒有受訓地點之限制，廣受各界歡迎，亦可減少受訓人員舟車勞頓及差旅費用的支出；然而，此次線上課程終究有其缺點，因課程為預先製作之簡報內容及旁白敘述，缺少面對面的實際講授，在研讀過程中遇有疑問或有經驗想分享時，無法第一時間提出與講師或參訓學員互動交流；過往參加的 IATA 實體課程，授課講師把自己定位「促進者」(Facilitator)而非「指導者」(Instructor)，主要任務在便利整體學習的進行，受訓學員常自動自發在課堂上分享自身經驗，並獲得其他學員及講師廣大且熱烈迴響，此次因為疫情及經費限制，有此小小缺憾，後續若有實體課程及線上課程兩者皆開設時，建議仍以參與實體課程為優先考量。

此次選派適當人員參加 IATA CBTA 線上課程，可讓本局危險物品檢查員瞭解國際最新危險物品訓練規範，幫助本局檢查員於執行民航業者危險物品檢查作業時，確認民航業者之危險物品訓練符合國際規範。本次訓練課程內容，已與本局危險物品檢查員及相關業者分享，以持續強化我國危險物品空中安全運輸作業。



**附件 1：教材(模組課程 0)**



**1** Understand the philosophy of the course

The slide on the tablet shows the following text: "Dangerous Goods Training", "Understanding the basics of dangerous goods", "0.1.1 - Understand the definition", and the IATA logo. The background of the slide is an image of a large commercial airplane on a runway.

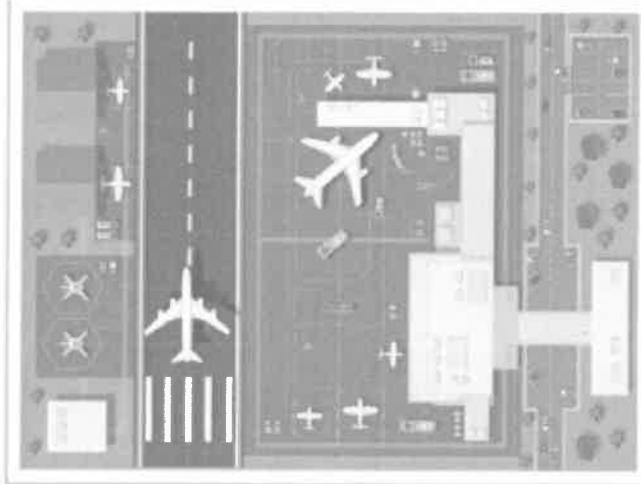
**1** Understand the philosophy of the course

The grid contains four images: top-left shows a pilot in uniform standing in an airplane cabin; top-right shows a large commercial airplane on a tarmac with ground crew; bottom-left shows a worker wearing a hard hat and safety vest handling cargo; bottom-right shows two people, one with a backpack, interacting with a large piece of equipment or cargo.

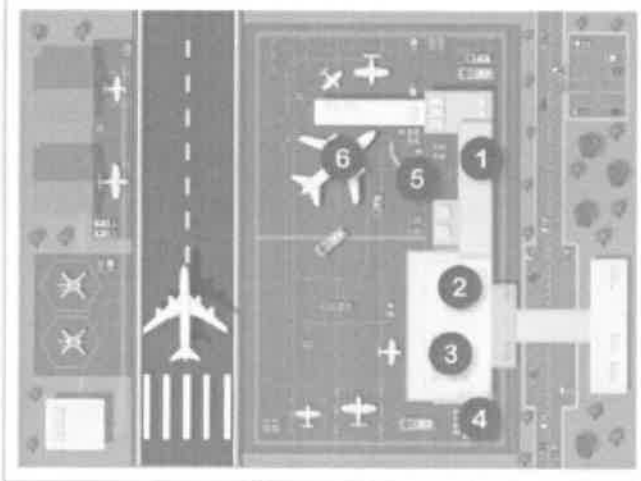
**3** Understand the principles of transporting dangerous goods through a simple route map

The route maps show a flight path from a departure point to an arrival point. The left map is labeled "Before the flight Departure" and the right map is labeled "After the flight Arrival". Both maps include icons for an airplane, a cargo plane, and various symbols representing cargo handling and safety procedures.

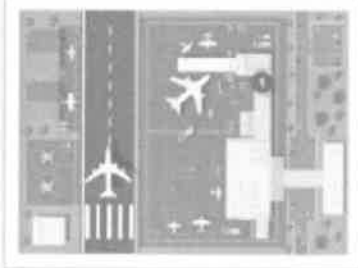
3 Before the flight



3 Before the flight



3 Before the flight

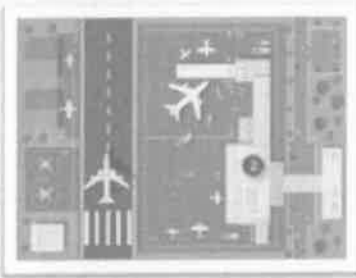


Seek for hidden/undeclared dangerous goods



3

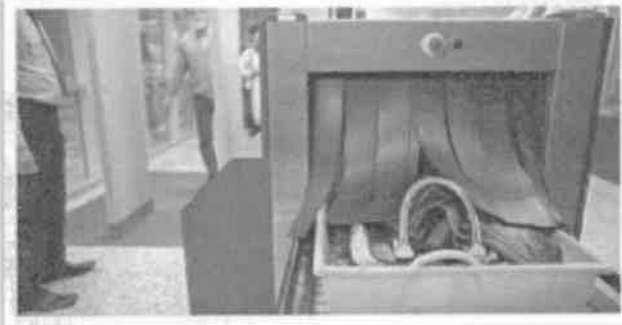
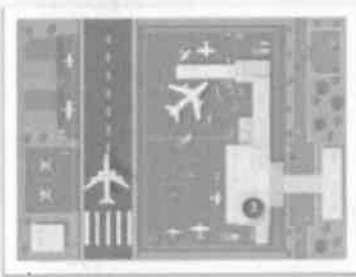
Before the flight



Seek for hidden/undeclared dangerous goods  
Establish dangerous goods checklist

3

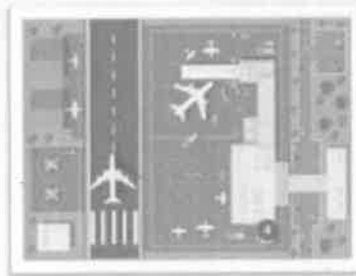
Before the flight



Seek for hidden/undeclared dangerous goods

3

Before the flight



Operate handling, segregation  
Seek for undeclared dangerous goods

3

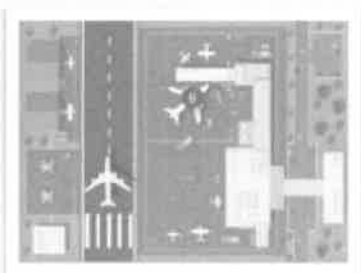
Before the flight



Cargo/baggage delivery apron

3

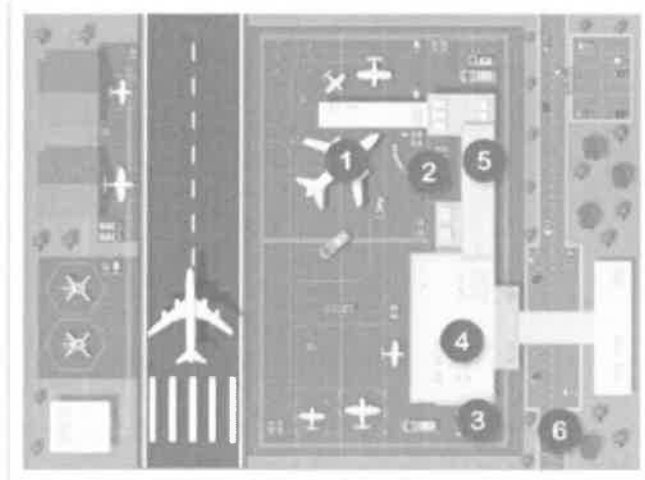
Before the flight



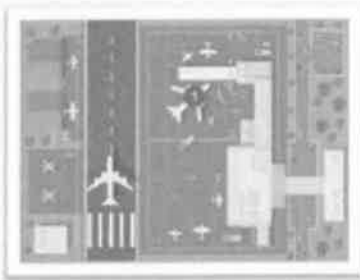
Inspect prior and after loading  
Seek for hidden/undeclared dangerous goods

3

After the flight

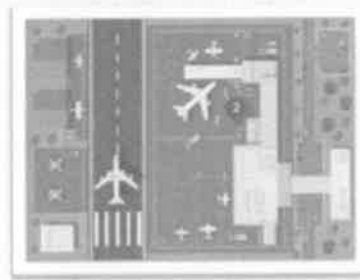


**3** After the flight



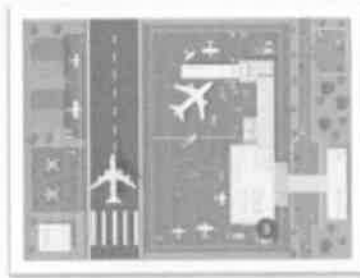
Inspect prior and after unloading of cargo/baggage  
Passenger handling

**3** After the flight



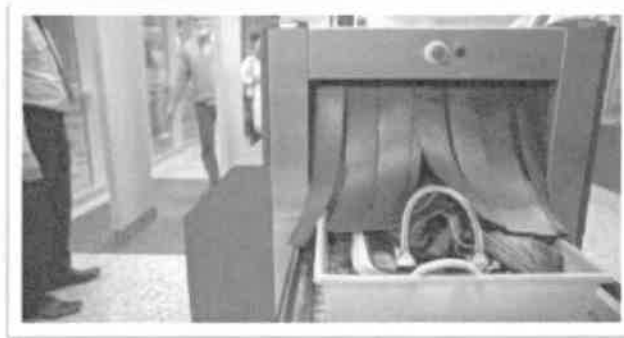
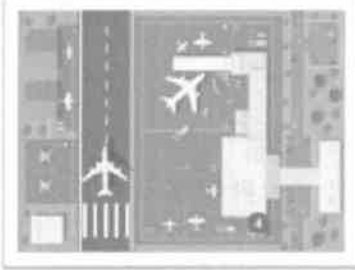
Check for mis-declared or miscarriage shipments

**3** After the flight



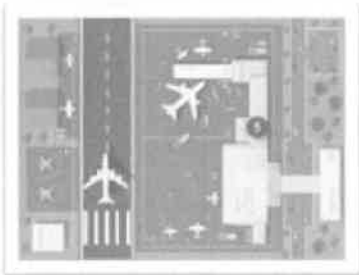
Storage, handling and segregation

3 After the flight



Cargo/Baggage screening and clearance

3 After the flight

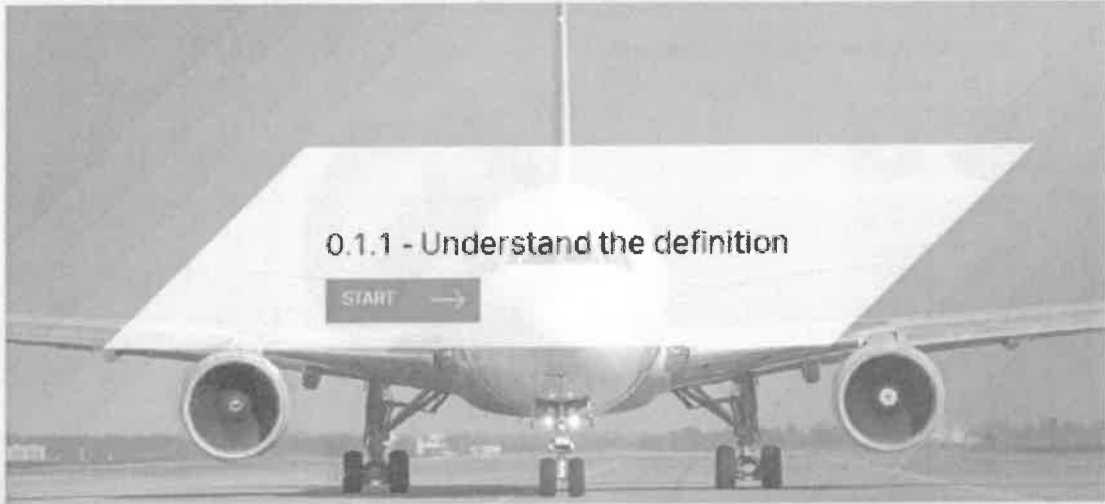


Passenger terminal

3 After the flight



Cargo delivery



### Forbidden Dangerous Goods

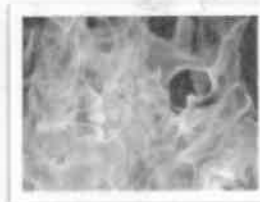
Any article or substance which, as presented for transport, is liable to



Explode



Dangerously react



Produce flame



Dangerous emission of gases or vapours



**MUST NOT** be carried on aircraft under any circumstances

### General Philosophy

Dangerous Goods can be transported safely by air provided certain principles are strictly followed

- 1
- 2
- 3
- 4
- 5
- 6
- 7



Correct classification of dangerous goods

### General Philosophy

Dangerous Goods can be transported safely by air provided **certain principles** are strictly followed

- 1
- 2
- 3
- 4
- 5
- 6
- 7



Prohibition

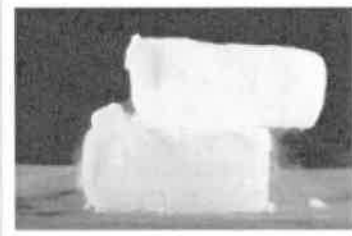
### General Philosophy

Dangerous Goods can be transported safely by air provided **certain principles** are strictly followed

- 1
- 2
- 3
- 4
- 5
- 6
- 7



Packaging



Quantity per package

### General Philosophy

Dangerous Goods can be transported safely by air provided **certain principles** are strictly followed

- 1
- 2
- 3
- 4
- 5
- 6
- 7



Training

### General Philosophy

Dangerous Goods can be transported safely by air provided **certain principles are strictly followed**

- 1
- 2
- 3
- 4
- 5
- 6
- 7



Documentation

### General Philosophy

Dangerous Goods can be transported safely by air provided **certain principles are strictly followed**

- 1
- 2
- 3
- 4
- 5
- 6
- 7



Hidden dangerous goods

### General Philosophy

Dangerous Goods can be transported safely by air provided **certain principles are strictly followed**

- 1
- 2
- 3
- 4
- 5
- 6
- 7



Incident and accident reporting

**What is the definition of dangerous goods?** ?  
 Select the right answer then click on SUBMIT.

- Dangerous Goods are articles or substances which are capable of posing a hazard to people due to the toxicity, flammability and corrosivity.
- Dangerous Goods are articles or substances which are capable of posing a hazard to health, safety, property or the environment.
- Dangerous Goods are articles or substances which are capable of generating incidents or accidents which have great consequences to health, safety, property or the environment.

Correct

Continue



**Basis of the Regulations**

Different organizations are involved in the legal aspects of the transport of dangerous goods by air

			
UN (SCoETDG)	IAEA	ICAO	IATA



### Basis of the Regulations

Different organizations are involved in the legal aspects of the transport of dangerous goods by air



UN (SCoETDG)



### Basis of the Regulations

Different organizations are involved in the legal aspects of the transport of dangerous goods by air



IAEA



### Basis of the Regulations

Different organizations are involved in the legal aspects of the transport of dangerous goods by air



ICAO



## Basis of the Regulations

Different organizations are involved in the legal aspects of the transport of dangerous goods by air



## Meaning for some symbols and abbreviations in the IATA DGR



Addition of a new item



Change to an item



Additional IATA requirements



Item relates entirely to radioactive shipments

## Meaning for some symbols and abbreviations in the IATA DGR



Addition of a new item



Change to an item



Additional IATA requirements



Item relates entirely to radioactive shipments



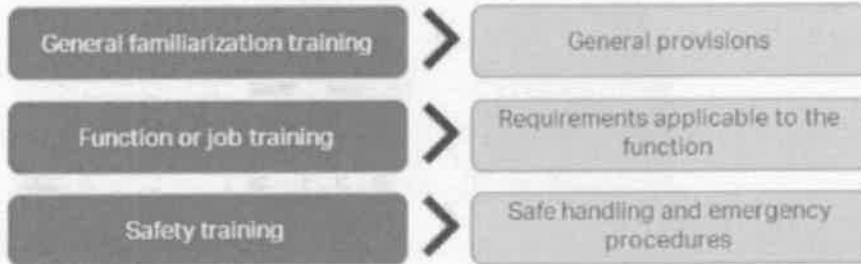
Shall / Must for mandatory requirement

Should / May for preferred requirement

## Training requirements

Personnel must be trained in the requirements commensurate with their responsibilities

Training must include



## Training requirements – Table 1.5.A

Currently, all personnel involved in the transportation of cargo or mail must comply with the below training aspects according to Table 1.5.A

Table 1.5.A Minimum Requirements for Training Controls (1-1-2)

Aspects of transport of dangerous goods by air with which they should be familiar, as a minimum	Shippers and packers		Freight forwarders		Operators and ground handling agents												Security screeners							
	1	2	3	4	Category																			
General philosophy	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Restrictions	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
General requirements for shippers	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Classification	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
List of dangerous goods	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
General packing requirements	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Packing instructions	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Labelling and marking	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Shipper's Declaration and other relevant documentation	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Acceptance procedures	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Recognition of undeclared dangerous goods	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Storage and loading procedures	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Pilot notification	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Provisions for passengers and crew	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Emergency procedures	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Table 1.5.B for No Carry Operators

Table 1.5.C for Designated Postal Operators

## Training requirements – Example

Aspects of transport of dangerous goods by air with which they should be familiar, as a minimum	Shippers and packers		Freight forwarders		Operators and ground handling agents												Security screeners							
	1	2	3	4	Category																			
General philosophy	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Restrictions	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
General requirements for shippers	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Classification	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
List of dangerous goods	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
General packing requirements	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Packing instructions	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Labelling and marking	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Shipper's Declaration and other relevant documentation	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Acceptance procedures	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Recognition of undeclared dangerous goods	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Storage and loading procedures	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Pilot notification	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Provisions for passengers and crew	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Emergency procedures	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

## Competency-Based Training and Assessment CBTA

This online training program has been designed and developed using the new CBTA Approach



*Implementation of these provisions have been deferred and are now expected to be adopted into the 2021-2022 edition of the ICAO Technical Instructions*

## Competency-Based Training and Assessment CBTA

The main principle of this approach is to provide training covering



Knowledge



Skills

To allow employees to perform their job at the required performance level that satisfies safety

## Competency-Based Training and Assessment CBTA

The adapted task lists for certain Well-Defined Functions for the new CBTA approach for personnel



Preparing dangerous goods



Processing or accepting general cargo



Processing/accepting dangerous goods

## Competency-Based Training and Assessment CBTA

The adapted Task lists for certain Well-Defined Functions for the new CBTA approach for personnel



Planning of aircraft loading



Flight crew



Flight operation officers

## Competency-Based Training and Assessment CBTA

The adapted Task lists for certain Well-Defined Functions for the new CBTA approach for personnel



Accepting passenger and crew baggage



Cabin crew



Screening of passengers and crew

### 0.1.3 - Identify the application scope

START →

## Applicability

The IATA Dangerous Goods Regulations are applicable to



Airlines Members or Associate Members



Airlines of Multilateral Interline Traffic Agreement



Shippers/Agents offering dangerous goods

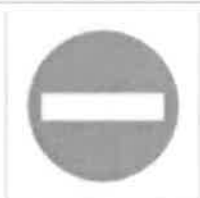
### 0.2.1 - Develop a sense of potential hidden dangerous goods

START →

## Dangerous Goods transport

A number of **limitations** are placed on the transport of dangerous goods

1



Forbidden under any circumstance

2



Cargo aircraft only

3



Passenger and Cargo aircraft

## Hidden hazard

A substantial range of items which are classified as **dangerous goods** are often carried onboard by the crew and passengers



Cargo declared under general description may contain hazardous articles that are not apparent



**Awareness and vigilance must be maintained at all times**

## Dangerous Goods Regulations

Here are some of the useful provisions that provide staff with information with regards to hidden dangerous goods



DGR 2.2.4



Table 2.3.A



Table B.4.A

DGR 2.2.4 gives examples for items that may contain dangerous goods

### Air Waybill descriptions

Battery-powered devices/equipment

Camping equipment

Tool boxes

Vaccines

*Click on each description*

DGR 2.2.4 gives examples for items that may contain dangerous goods

Air Waybill descriptions

Battery-powered devices/equipment ✓

Camping equipment

Tool boxes

Vaccines



*May contain wet or lithium batteries*

DGR 2.2.4 gives examples for items that may contain dangerous goods

Air Waybill descriptions

Battery-powered devices/equipment ✓

Camping equipment

Tool boxes

Vaccines



*May contain flammable gases, liquids, solids*

DGR 2.2.4 gives examples for items that may contain dangerous goods

Air Waybill descriptions

Battery-powered devices/equipment ✓

Camping equipment

Tool boxes

Vaccines



*May contain explosives, compressed gases or aerosols, flammable gases, adhesives, paints*



DGR 2.2.4 gives examples for items that may contain dangerous goods

Air Waybill descriptions

- Battery-powered devices/equipment ✓
- Camping equipment
- Tool boxes ✓
- Vaccines ✓



May be packed in Carbon dioxide, solid (dry ice)

Table 2.3.A indicates permitted dangerous goods carried by passengers or crew

The pilot in command must be informed of the location				
Permitted in or as carry-on baggage				
Permitted in or as checked baggage				
The approval of the operator is required				
e-cigarettes (including e-cigs, e-pipes, other personal vaporizers) containing batteries must be individually protected to prevent accidental activation.	NO	NO	YES	NO



Table B.4.A provides information on the Globally Harmonized System of Classification and Labeling of Chemicals (GHS)



Diamond-Shaped GHS pictograms identify substances that only pose a hazard for supply and use and may indicate the presence of dangerous goods

## Some other limitations of dangerous goods

**DGR 2.4**

Transport of dangerous goods by Post



**DGR 2.5**

Dangerous Goods in Operator's Property



What type of information can be found in the following references from the Regulations?

Drag the information at the right place then click on **SUBMIT**.

**DGR 2.2.4**

Examples of suspicious items

**Table 2.3.A**

Permitted dangerous goods carried by passengers or crew

**Table B.4.A**

Information on the Globally Harmonized System pictograms

**DGR 2.4**

Transport of dangerous goods by Post

**DGR 2.5**

Dangerous Goods in Operator's Property



**Correct**

Continue

0.2.2 – Recognize the difference between hidden vs undeclared dangerous goods

START →



**What are undeclared dangerous goods?**  
*Select the right answers then click on SUBMIT.*

- Items containing dangerous goods, but are not identified or incorrectly identified
- Items where the required transport document (shipper's declarations) is missing
- Items that have marks or labels missing

Correct

Continue



**Cargo declared under a general description may contain hazardous articles than are not apparent**



Awareness and vigilance must be maintained at all times

Personnel must be adequately trained

**With the aim of preventing undeclared dangerous goods from being loaded on an aircraft and passengers from taking it in their baggage**



Cargo and passenger staff should seek confirmation from shippers/passengers about the content of any item of cargo or baggage

What are the differences between hidden and undeclared dangerous goods?  
 Drag the elements at the right place then click on **SUBMIT**.

**Incorrect**  
 Here is the solution.

**Hidden dangerous goods**

- Declared under general description
- Possible in baggage or cargo

**Undeclared dangerous goods**


- Declared as dangerous goods by shipper but not booked as DG by Agent
- Booked as dangerous goods by Agent but delivered to Airline without marks and labels
- In cargo and possibly in baggage

**Continue**




**General requirements**


The Regulations permit very few dangerous goods to be carried by passengers and crew



Alcohol beverages



Non-radioactive medicinal or toiletry articles



Dry ice

### General requirements

The Regulations permit very few dangerous goods to be carried by passengers and crew



Matches, safety or small lighter



Radioisotopic Cardiac pacemakers

### General requirements

Many everyday items that are considered as dangerous goods may subject to certain controls, be carried by passengers and crew



On the person



Checked baggage



Carry-on baggage

### Dangerous Goods Training

Understanding the basics of dangerous goods  
0.2.3 – Familiarize with passenger provisions vs cargo provisions in various situations (examples)



Table 2.3.A indicates which dangerous goods can be carried by passengers and crew

Alcoholic beverages, when in retail packaging, containing more than 24% but not more than 70% alcohol by volume, in receptacles not exceeding 5 L, with a total net quantity per person of 5 L.	The pilot-in-command must be informed of the location			
	Permitted in or as carry-on baggage			
	Permitted in or as checked baggage			
	The approval of the operator is required			
	NO	YES	YES	NO



Passenger vs Cargo provisions

Passenger Provision

Only for items permitted under 2.3.2 to 2.3.5 for personal use

Limitation as described in 2.3

Dangerous Goods are forbidden for carriage by passengers or crew



Cargo Provision

Generally not for personal use

Must be declared as cargo according to the 4.2

Dangerous Goods can be declared as cargo if they are not forbidden under any circumstances

Carrying dangerous goods various situations



Ashley is carrying a peck of perishable with dry ice used as refrigerant. Is it permitted?

Select the right answers then click on SUBMIT.

	The position comment must be informed of the location			
	Permitted in or as carry-on baggage			
	Permitted in or as checked baggage			
	The approval of the operator is required			
Dry ice (carbon dioxide, solid) in quantities not exceeding 2.5 kg per person when used to pack perishables NOT SUBJECT TO Special Regulations in checked or carry-on baggage provided the baggage (package) carries the message of carbon dioxide 903. Checked baggage must be marked "Dry Ice" or "Carbon dioxide, solid" and with the net weight of dry ice or an indication that there is 2.5 kg or less dry ice	YES	YES	YES	NO

- On one's person
- Checked baggage
- Carry-on baggage



Dry ice used to pack perishables is permitted in or as checked and carry-on baggage.

**Incorrect**

Continue

**Ashley can carry a pack of perishable with dry ice used as refrigerant...**  
Select the right answers then click on **Submit**.

The pilot-in-command must be informed of the location

	Permitted in or as carry-on baggage			
	YES	YES	YES	NO

The approval of the operator is required

Dry ice (carbon dioxide, solid), in quantities not exceeding 2.5 kg per person when used to pack perishables not subject to these Regulations in checked or carry-on baggage, provided the baggage (package) permits the release of carbon dioxide gas. Checked baggage must be marked 'dry ice' or 'carbon dioxide, solid' and with the net weight of dry ice or an indication that there is 2.5 kg or less dry ice.

If quantities doesn't exceed...

2.5 kgs       5 kgs       7 kgs

On checked baggage, must be marked ...

Dry ice       Carbon dioxide, solid       The net weight

**Correct**  
Continue

**Paul is carrying mobile phones containing lithium ion batteries with a watt-hour rating of 25. Is it permitted?**  
Select the right answers then click on **Submit**.



The pilot-in-command must be informed of the location

	Permitted in or as carry-on baggage			
	NO	YES	YES	NO

The approval of the operator is required

Lithium Batteries: Portable electronic devices (PED) containing lithium metal or lithium ion cells or batteries, including electric power tools or portable engine compartments (PEC) and consumer electronics such as cameras, mobile phones, laptops and tablets, when carried by passengers or crew for personal use (see 2.1.1.3). For lithium metal batteries, the lithium metal content must not exceed 2 g and for lithium ion batteries the watt-hour rating must not exceed 100 Wh. Devices in checked baggage must be completely switched off and must be protected from damage. Each person is permitted a maximum of 10 PED. Baggage equipped with a lithium battery other than lithium polymer cells, the battery must be removable. If offered as checked baggage the battery must be removed and carried in the cabin. The operator may operate the carriage of more than 10 PED.

On one's person       Checked baggage       Carry-on baggage

**Correct**  
Continue

**Cargo declared under a general description may contain hazardous articles than are not apparent**

Awareness and vigilance must be maintained at all times

Personnel must be adequately trained



**Dangerous Goods Training**

Understanding the basics of dangerous goods  
 0.3.1 - Clarify the individual and collective role of the supply chain stakeholders



According to the Regulations, there are two responsibilities involved



**Dangerous Goods Training**

Understanding the basics of dangerous goods  
 0.3.1 - Clarify the individual and collective role of the supply chain stakeholders



The traditional cargo flow starts from the shipper and ends by the operator





### Shipper's responsibilities

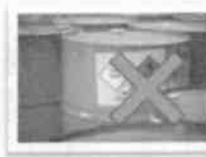
When offering a consignment of dangerous goods, the shipper must



Comply with the Regulations



Provide information and training to staff



Control articles (prohibition)



Identify, classify, pack, mark, label of items



Document retention for 3 months

### Operator's responsibilities

In transporting dangerous goods, an operator must comply with



Acceptance and Storage



Loading & Inspection



Reporting



Staff training



Document retention for 3 months

Who is responsible for the below aspects?  
Drag the elements at the right place then click on SUBMIT.



#### Incorrect

Shippers are responsible for the preparation and processing of dangerous goods.

Meanwhile, operators are responsible for handling the consignments of dangerous goods.

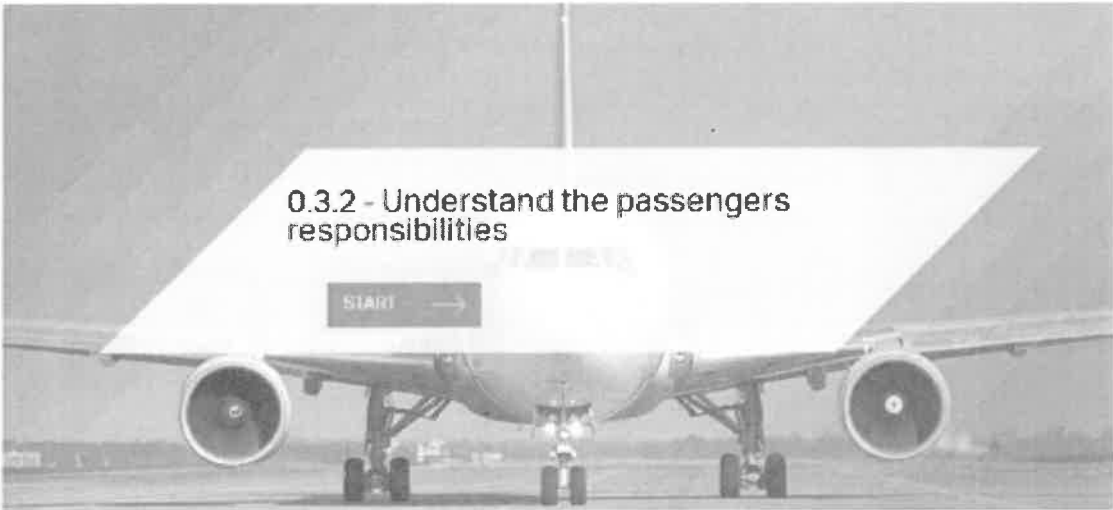
Continue

#### Shippers

- Identification ✓
- Packing and packaging ✓
- Marking & labelling ✓
- Provision of information ✗
- Documentation ✓

#### Operators

- Classification ✗
- Storage ✓
- Reporting ✓
- Acceptance ✓
- Loading and inspection ✓



Dangerous Goods Training

Understanding the basics of dangerous goods  
0.3.2 - Understand the passengers responsibilities



**Passengers responsibilities**

Passengers are required to follow rules and requirements established by

 Airlines	 Airport authorities	 States
------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------

Dangerous Goods Training

Understanding the basics of dangerous goods  
0.3.2 - Understand the passengers responsibilities



*Click on each pin to discover where the information must be provided*

### Operator's responsibilities

Passengers must be informed about forbidden dangerous goods



By the operator or the operator's handling agent

### Operator's responsibilities

Passengers must be informed about forbidden dangerous goods



By any organization or enterprise other than an operator involved in the air transport of passengers

### Operator's responsibilities

Passengers must be informed about forbidden dangerous goods



By the operator or the operator's handling agent

## Operator's responsibilities

Passengers must be informed about forbidden dangerous goods



By any organization accepting excess baggage consigned as cargo

Where does the operator's handling agent display information to warn passengers?  
*Select the right answers then click on SUMMIT.*

- Where boarding passes are issued
- Where baggage is accepted
- In baggage claim areas

**Incorrect**

All the answers are correct.

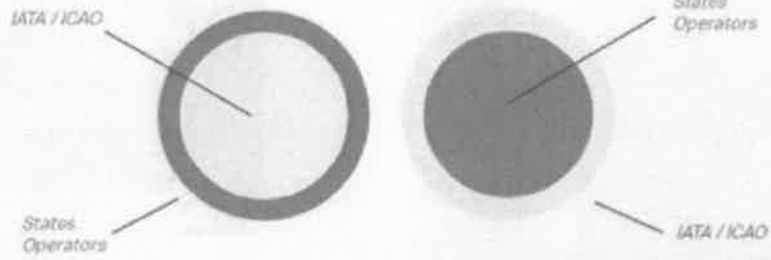
Continue

## 0.3.3 - Recognize the role and impact of States and Operators variations

START →

### States and operators variations

States and operators may submit their own variations for the transport of dangerous goods by air



### State variations - Example



### State variations - Example



Prior authorization is required from the appropriate Authority in the US to ship certain dangerous goods

State variations - Example



Forbids the transport of certain dangerous goods

State variations - Example



A permit is required to import or export radioactive materials in Australia

State and operator variations in the IATA DGR

State variation: identified by a two-letter country code and the letter "G" (for Government), followed by a 2 digits number in sequence

AUG - 01

Operator variation: identified by two alpha-numeric characters followed by a two-digit group in strict numerical sequence

AC - 01



Operator variations - Examples



Operator variations - Examples



Additional packing requirements



Emergency telephone number is required on shipping document



Specific passengers and crew limitations

0.4.1 - Differentiate between hazard vs risk

START →

What is the difference between the term hazard and risk?  
 Drag the elements at the right place then click on SUBMIT.

**Hazard**  
 Causes Injuries or damages ✓  
 Is a potential source ✓

**Risk**  
 Expresses a probability for an event to occur ✓  
 May indicate the severity of an event ✓



Correct

Continue

Dangerous Goods Training | Understanding the basics of dangerous goods  
 0.4.1 - Differentiate between hazard vs risk

**Hazard**  
 Condition of potentially causing



			
Injuries to personnel	Damage to equipment or structures	Loss of material	Reduction of ability to perform a prescribed function

Dangerous Goods Training | Understanding the basics of dangerous goods  
 0.4.1 - Differentiate between hazard vs risk

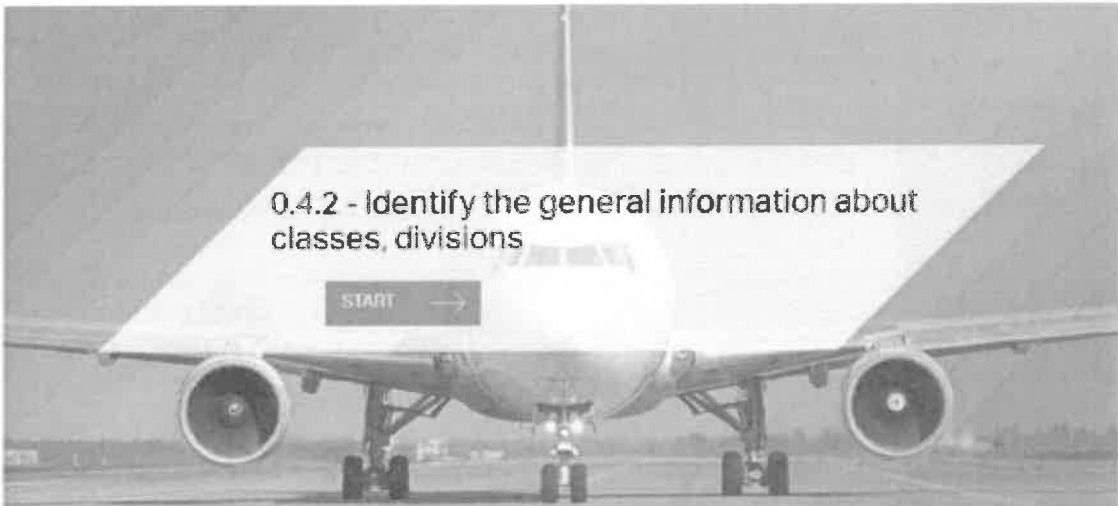
**Risk**  
 Assessment that considers both



**Hazard severity of a hazard** (represented by a semi-circle gauge)


**Probability of a hazard** (represented by a pie chart)





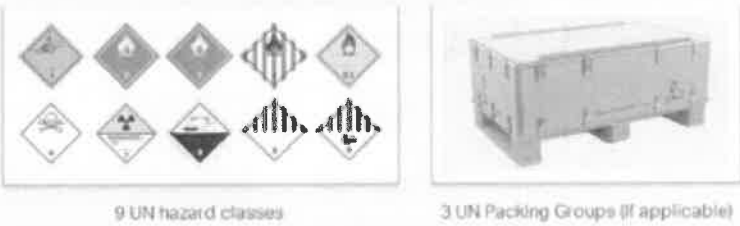
**General principles for classification of Dangerous Goods**

Dangerous Goods are often recognized as hazardous materials




**General principles for classification of Dangerous Goods**

Dangerous Goods are defined as those goods which meet the criteria of



9 UN hazard classes      3 UN Packing Groups (if applicable)

 **The order in which hazard classes are numbered is just for convenience**

General principles for classification of Dangerous Goods

Some of the 9 hazard classes are further subdivided into hazard divisions

Hazard classes with their divisions

Example



→ Class 1 - Explosives

- Division 1.1 - Articles and substances having a mass explosion hazard.
- Division 1.2 - Articles and substances having a projection hazard but not a mass explosion hazard.
- Division 1.3 - Articles and substances having a fire hazard, a minor blast hazard and/or a minor projection hazard but not a mass explosion hazard.
- Division 1.4 - Articles and substances presenting no significant hazard.
- Division 1.5 - Very insensitive substances having a mass explosion hazard.
- Division 1.6 - Extremely insensitive articles which do not have a mass explosion hazard.

Identify the class number, the class name and how many divisions are included.  
Drag the right element at the right place then click on SUBMIT.

Click on the manual to download the document.

**Correct**

Mark	Class Number	Class Name	How many divisions?
	Class 2	Gases	3
	Class 3	Flammable liquids	Nil
	Class 4	Flammable solids	3
	Class 5	Oxidizing substances and organic peroxides	2

Continue

Identify the class number, the class name and how many divisions are included.  
 Drag the right element at the right place then click on **SUBMIT**.

Click on the manual to download the document.

**Correct**

Continue

Mark	Class Number	Class Name	How many divisions?
	Class 6	Toxic and infectious substances	2
	Class 7	Radioactive material	Nil
	Class 8	Corrosives	Nil
	Class 9	Miscellaneous dangerous substances and articles	Nil



**Dangerous Goods Training** | Understanding the basics of dangerous goods  
 0.4.3 - Understand general principles of Packing Groups

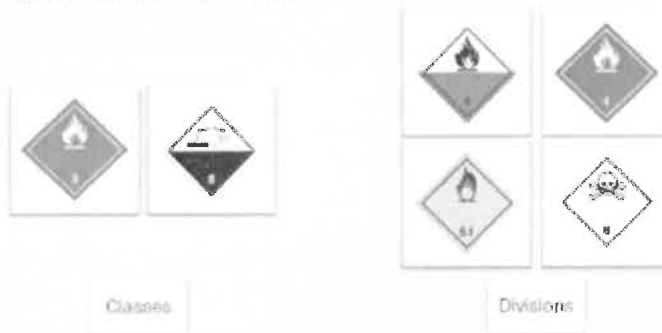
**IATA**

**Packing Groups**  
 An indication of the relative degree of danger presented by various articles and substances within a class or division

Packing Group I	➔	High Danger
Packing Group II	➔	Medium Danger
Packing Group III	➔	Low Danger

**Packing Groups**

Criteria for Packing Groups I, II and III have been developed for substances in certain classes and divisions



**General Packing requirements**

When preparing any package of dangerous goods, the shipper must comply with



General Packing requirements



**General Packing requirements**

Dangerous Goods must be packed in good quality packaging



General Packing requirements

Dangerous Goods must be packed in good quality packaging



UN Specification



Limited Quantity



Excepted

General Packing requirements

Dangerous Goods must be packed in good quality packaging



Re-use



Salvage



Other packagings

Types of Packagings

Shippers must comply with the general Packing requirements



Single



Combination

Both packages must be manufactured and tested in accordance with the UN specifications packagings

Different type of packagings



These packages must comply with certain requirements as set by IATA Regulations

Check whether the below statements are true.  
Select the right answers then click on **SUBMIT**.

- Overpacks and All packed in one packagings are methods of Packing same dangerous goods
- Single packaging doesn't require an outer packaging for protection
- Combination packaging consist of an outer packaging and inner packaging

**Incorrect**

Shippers can pack different Dangerous Goods in the same outer packaging as "All Packed in One" type of packaging or packages of Dangerous Goods to form one handling unit as an "Overpack" for convenience of handling and stowage.

Continue

Do all classes and divisions assign to Packing Groups?  
Select the right answer then click on **SUBMIT**.

- Yes
- No

**Incorrect**

Some classes and divisions of Dangerous Goods are assigned to a Packing Group for Packing purposes: Classes 3, 8 and Divisions 4.2, 4.3, 5.1 and 6.1. The other classes and divisions are not assigned to a Packing Group unless specified.

Continue

**SUBMIT**



Understanding the basics of dangerous goods



0.4.4 - Consider multiple hazards

Classification of Multiple Hazard



Classification of Multiple Hazard

Class of Hazard	Packing Group	Class 2		Class 3		Class 4		Class 5		Class 6		Class 7		Class 8		Class 9		
		1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	
1	1																	
1	2																	
2	1																	
2	2																	
3	1																	
3	2																	
4	1																	
4	2																	
5	1																	
5	2																	
6	1																	
6	2																	
7	1																	
7	2																	
8	1																	
8	2																	
9	1																	
9	2																	

The Precedence of Hazards and Packing Groups

## Classification of Multiple Hazard

Class or Division	Packing Group	4.2	4.2	4.3	4.3	4.3
		II	III	I	II	III
3	I			4.3 I	4.3 I	4.3 I
3	II			4.3 I	4.3 II	4.3 II
3	III			4.3 I	4.3 II	4.3 III
4.1	II	4.2 II	4.2 II	4.3 I	4.3 II	4.3 II
4.1	III	4.2 II	4.2 III	4.3 I	4.3 II	4.3 III
4.2	II			4.3 I	4.3 II	4.3 II
4.2	III			4.3 I	4.3 II	4.3 III
4.3	I					
4.3	II					
4.3	III					

### 0.5.1 - Recognize the different marking basic requirements

START →

## Dangerous Goods Training

Understanding the basics of dangerous goods  
0.5.1 - Recognize the different marking basic requirements



### General marking requirements

Correct marking is an important element in the safe transport process



Shippers



Type of marks

1

Use of particular packaging

ACETYL IODIDE, UN 1898, Net Qty 10L

SHIPPER:  
Chemifac Ltd.  
19 Wandsworth Road  
London S.E.1 England

CONSIGNEE  
Farell GmbH  
Hagenring 14  
D-38100 Braunschweig  
Germany

Mandatory marks

Type of marks

2

Design of a packaging

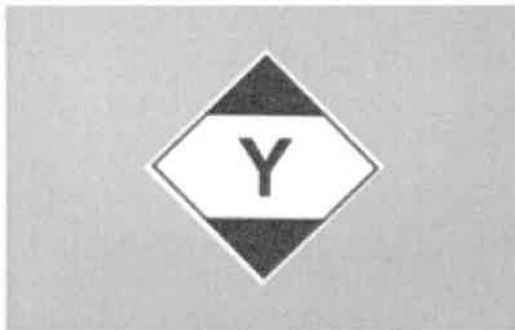
4G/X20/S/17/GB/0234



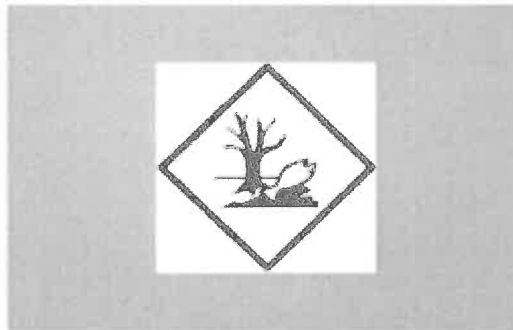
Marks fulfill the following general purposes

- 1 Indicate the content of the package
- 2 Indicate that packaging meets approved standards
- 3 Provide safe handling and stowage information
- 4 Indicate the nature of the hazard

Additional marks



**Limited Quantities mark**  
Must be displayed on packages that are packed in accordance with the limited quantities provisions



**Environmentally hazardous substance mark**  
Must be affixed to packages containing environmentally hazardous substances

### Additional marks



**Handling and storage mark**  
Must be displayed on packages to give indications on handling and storage instructions.



**Lithium batteries mark**  
Applies to packages containing lithium cells or batteries

### Additional marks



**Salvage packaging mark**  
Must be displayed on damaged, defective, leaking or non-conforming packages that have spilled or leaked.



**Overpack mark**  
Must be marked with the word Overpack. This mark must be at least 12 mm high

When shipping two non-identical Dangerous Goods packages, the net quantity contained in each package must be shown.  
Select the right answer then click on **SUBMIT**.

- True  
 False





Correct

Continue



**General labelling requirements**

Correct labelling is an important element in the safe transport process

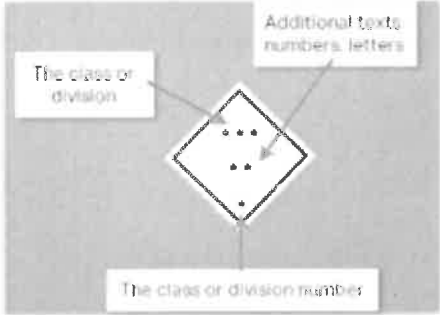


Shippers



**Type of labels**

1  
Hazard labels



The class or division

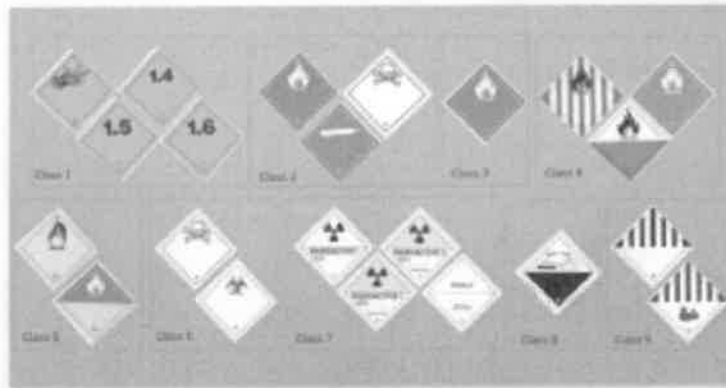
Additional texts numbers, letters

The class or division number

## Type of labels

1

Hazard labels

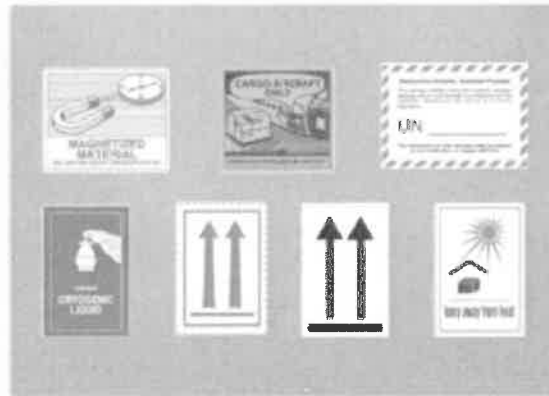


UN/ID no.	Proper Shipping Name/Description	Class or Div. (Sub Hazard)	Hazard Labels
A	B	C	D
→ 1090	Acetal	2	Flammable Liquid
→ 1089	Acetaldehyde	2	Flammable Liquid
→ 1790	Acetic acid, glacial	8 (C)	Corrosive Flammable Liquid

Type of marks

2

Handling labels



Handling labels



**Magnetized material**  
The material must be stowed away from the aircraft compass detector unit.

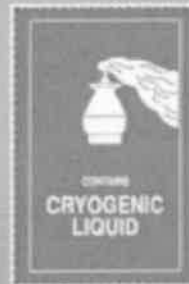


**Cargo Aircraft Only**  
Used for packages packed according the Cargo Aircraft Only packing instructions.

### Handling labels

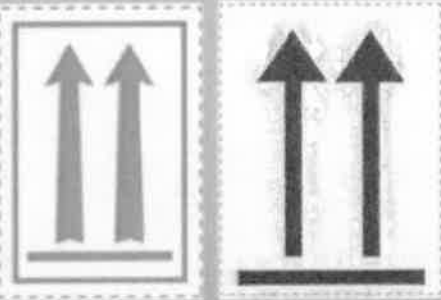


**Radioactive material excepted packages**  
Must be affixed to excepted packages of radioactive material



**Cryogenic liquid**  
Must be used in addition to the non-flammable gas (division 2.2) hazard label

### Handling labels



**Package orientation**  
Must be used on combination packaging containing liquid dangerous goods



**Keep away from heat mark**  
Must be used in addition to the applicable hazard label on package of Div. 4.1 and 5.2

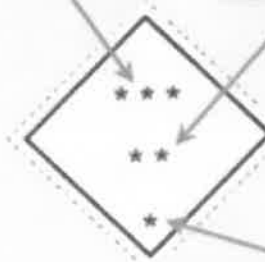
What is the information required on all hazard labels?  
*Drag the right element at the right place then click on SUBMIT.*



Correct

The class or division ✓

Additional texts, numbers, letters ✓



The class or division number ✓

Continue

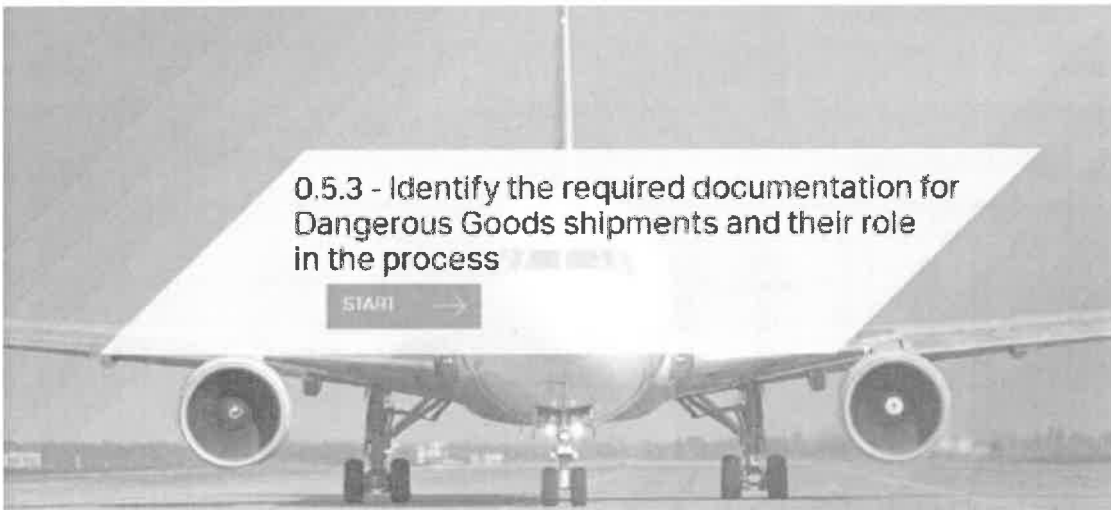
Check whether the below statements are true.  
Select the right answers then click on **SUBMIT**.

- Hazard labels are required for all dangerous goods in all classes
- Handling labels are required, either by itself or in addition to hazard labels, for some dangerous goods
- The blue pages in the Dangerous Goods Regulations manual, Column D, the primary hazard label is listed first followed by any subsidiary hazard label

✕ Incorrect

Here is the solution.

Continue



Documentation

All dangerous goods require appropriate transport documentation



Air Waybill



Declaration for Dangerous Goods



**Air WayBill (AWB) - Shipper's Declaration is Required**

The image shows a scan of an Air Waybill (AWB) form. A circled '1' is placed in the 'Shipper's Declaration' section, which is located in the lower-left quadrant of the form. The form contains various fields for flight details, shipper information, and cargo details.

**Air WayBill (AWB) - Shipper's Declaration is Required**

Agent of Declaration		Requested Flight/Date		Amount of Insurance		<small>FOR THE USE OF CARRIER, SHIPPER AND ALL INTERESTED PARTIES:                  THIS IS A SHIPPER'S DECLARATION AND NOT A CONTRACT OF CARRIAGE.                  IT IS SUBJECT TO THE AIR CARRIAGE AGREEMENT AND THE AIR CARRIAGE REGULATIONS.                  IT IS NOT VALID UNLESS SIGNED BY THE SHIPPER.</small>	
Shipping Information <b>Dangerous Goods as per attached DGD - Cargo Aircraft Only</b>							
No. of Pieces (Gross Weight)	Gross Weight	kg/m <sup>3</sup>	Rate Class <small>(Indicatively See IATA)</small>	Chargeable Weight	Rate/Charge	Rate	Notes and Quantity of Goods (Net Dimensions or Volume)
1	20	Kg					<b>Ammunition</b>

**Air WayBill (AWB) - Shipper's Declaration is Required**

The image shows a scan of an Air Waybill (AWB) form, similar to the one above. A circled '2' is placed in the 'Shipper's Declaration' section, which is located in the lower-right quadrant of the form. The form contains various fields for flight details, shipper information, and cargo details.

## Air WayBill (AWB) - Shipper's Declaration is Required

Agent of Originator		Requested Flight/Date		Amount of Insurance		IATA/ATA/ATA of Carriage Insurance and Commission (IATA/ATA/ATA) and other relevant information, including general conditions of carriage, are attached hereto and form part of this document.	
Handling instructions:							
ICD							
No. of Pieces (CT)	Gross Weight	Kg	Rate Class	Chargeable Weight	Rate/Charge	Total	Name and Quantity of Goods Item, Classification, or Hazard
2	110	Kg	Commodity Code No.				Frozen fish UN 1845 Carbon dioxide, solid 2 X 40 Kg

## Declaration for Dangerous Goods (DGD)

Shipper's Declaration for Dangerous Goods						
<b>Shipper</b> Name, Company, Address, City, State, Country <b>Compline</b> Title, ID Tel. Fax, E-mail, Fax Postal Code Country			Date of Issue: DD MM YYYY Place: _____ Country: _____ City: _____			
<b>TRANSPORT DETAILS</b> This document is valid for the following: Mode: _____ Subject of Declaration: _____			<b>WARNING</b> It shall be verified in all respects with the applicable International Transport Regulations that the goods are in Class 1 of the IATA/ATA/ATA and listed in Appendix 1.			
<b>IDENTIFICATION</b> Name, Label, Markings (Article 1)			<b>HAZARD CLASS</b> (Article 2)			
<b>NET WEIGHT AND QUANTITY OF DANGEROUS GOODS</b> (Article 3)			<b>PLACING</b> (Article 4)			
Article No.	Proper shipping name	Class or Division (Article 2)	Placing (Article 4)	Quantity and type of packing	Placing (Article 4)	Additional
00100	Proper shipping name	4.00	-	1 Piece 1000 x 100	00	
00200	Self-heating liquid (N.O.S.) (Excluded from Class 3)	2.2	-	1 1000ml Can 10 x 100	00	
00300	Flammable solid	3	-	1 1000ml Can 10 x 100	00	
The package (including its contents) shall be marked with correct weight and dimensions of each box by printed or indelible markings in accordance with the applicable regulations.						
I hereby declare that the contents of this declaration are true and accurate and that I am the Shipper/Originator of the goods described herein.						<b>Signature</b> (Article 5)
I hereby declare that the contents of this declaration are true and accurate and that I am the Shipper/Originator of the goods described herein.						<b>Date</b> (Article 5)
I hereby declare that the contents of this declaration are true and accurate and that I am the Shipper/Originator of the goods described herein.						<b>Signature</b> (Article 5)

**Check whether the below statements are true.**  
Select the right answer then click on **SUBMIT**.

- The Dangerous Goods Declaration may be accompanied by an accurate translation in another language.
- Only one Dangerous Goods Declaration copy is required with dangerous goods consignment.
- The Dangerous Goods Declaration must be deleted immediately after the flight.

**Incorrect**

DGD form must be completed in English as first language.  
Two completed and signed DGD must be delivered with the Shipment.  
Copy must be retained for minimum of 3 months.

Continue


**You are shipping one package of dangerous goods on Cargo Aircraft Only. Where must the information be included on the Air Waybill?**  
Select the right answer then click on **SUBMIT**.

- Optional Shipping Information
- Handling Information
- Other charges

**Correct**

Continue

### Declaration for Dangerous Goods (DGD)



- DGD form must be completed in English
- Two completed and signed DGD with the Shipment
- If no sufficient space, an additional pages may be used
- Alterations and amendments not acceptable unless signed by the Shipper
- Must be accurate, easy to identify, legible and durable
- Copy must be retained for minimum of 3 months



### Employer emergency procedures



Must be available whenever dangerous goods are handled

### Emergency procedure



Training is required for all personnel specified by the IATA Regulations

## Emergency procedure



Local requirements and emergency contacts must be known

Place the correct action in the right order below.  
Drag the elements at the right place then click on SUBMIT.

?

X

Incorrect

Look at the solution.

Continue

1

Advise supervisor

2

Identify the substances involved

3

Isolate the package

4

Isolate the area and advise emergency services

## General procedure to follow in the event of an emergency

1



Advise the supervisor immediately

General procedure to follow in the event of an emergency

2



Identify the substances involved

General procedure to follow in the event of an emergency

3



Isolate the package by removing other packages

General procedure to follow in the event of an emergency

4



Isolate the area and advise emergency services

## General procedure to follow in the event of an emergency

5



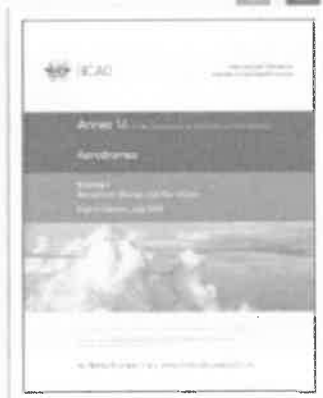
Contact with contents must be avoided

0.6.2 - Recognize country specific emergency procedures including exemptions and approvals

START →

## State emergency procedures

1 2



Airport authorities must establish procedures dealing with emergency events related to dangerous goods transport.

## State emergency procedures

When other forms of transport are inappropriate



may grant an approval or exemptions to permit the transport of dangerous goods

Both airport authorities and States must have specific emergency procedures.  
Select the right answer then click on **SUBMIT**.

- True
- False

**Incorrect**

ICAO Annex 14 Aerodromes, Emergency and other services, require that procedures be established by airport authorities and states to deal with emergency involving dangerous goods.

Continue

## 0.6.3 - Apply the employer emergency response requirements

START →



## Employer emergency procedures



Information must be provided with regards to the action to be taken in the event of emergencies involving dangerous goods.

## Employer emergency procedures



Airport local authorities contact details must also be provided to employees.

## Emergency response information



Appropriate information must immediately be available at all times.

### Contaminated Cargo or Baggage Handling



All reasonable steps must be followed to identify the nature and source of contamination.

### Contaminated Cargo or Baggage Handling



If the cause of the contamination is due to dangerous goods, baggage or cargo must be isolated to nullify the hazard.


## 附件 2、教材(模組課程 3)



Menu


**Dangerous Goods Training**

Processing/accepting cargo  
3.4.1 – Check documentation for indications of undeclared dangerous goods



**3.4.1 – Check documentation for indications of undeclared dangerous goods**


START →



⏮

**Dangerous Goods Training**


Processing/accepting cargo  
3.4.1 – Check documentation for indications of undeclared dangerous goods



**Learning Objectives**

At the end of this training session, you should be able to:

- Illustrate the undeclared dangerous goods
- Check documentation for indications of undeclared dangerous goods




⏮ [ ] ⏭

◀ PREV    NEXT ▶



**Dangerous Goods Training**

Processing/accepting cargo  
3.4.1 – Check documentation for indications of undeclared dangerous goods



**Undeclared Dangerous Goods**

Operators' acceptance staff must be adequately trained to identify and detect dangerous goods presented as general cargo

⏮ [ ] ⏭

◀ PREV    NEXT ▶

### Undeclared Dangerous Goods

When cargo is declared under general description, it may contain hazardous articles that are not apparent



Such articles may also be found in baggage

### Undeclared Dangerous Goods

Operators must pay attention to the general description of items



Diving equipment



Toolboxes



Camping equipment

### Undeclared Dangerous Goods

Operators must also pay attention to some other indications that dangerous goods may be present



Labels and marks



GHS pictograms

### Undeclared Dangerous Goods

To assist in the detection of undeclared dangerous goods, acceptance staff should



Check any **general description** on the Air Waybill

### Undeclared Dangerous Goods

To assist in the detection of undeclared dangerous goods, acceptance staff should




Request documentary evidence



**Undeclared Dangerous Goods**

Staff must be provided with information that are readily available



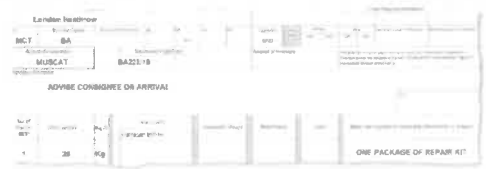
DGR 2.2.4

on any general descriptions that are often used for items in cargo or in passengers' baggage

◀ PREV    ▶ NEXT ▶

**Undeclared Dangerous Goods**

You have received an Air Waybill with a general description of "one package of repair kit"



In order to follow the proper procedure, you need to check the commodity description against the list of DGR 2.2.4.

**REFRIGERATORS** — may contain liquefied gases or an ammonia solution  
**REPAIR KITS** — may contain organic peroxides and flammable adhesives, solvent based paints, resins, etc.

◀ PREV    ▶ NEXT ▶



◀ PREV    ▶ NEXT ▶





You have received an Air Waybill with a general description of "Frozen Embryos".  
What do you suspect this item may have?  
Select the right answers then click on SUBMIT.

- Carbon dioxide, solid (dry ice)
- Refrigerated liquefied gas
- Infectious substances

**Incorrect**

FROZEN EMBRYOS may contain refrigerated liquefied gas or Carbon dioxide, solid (dry ice) as per DGR 2.2.4.

Continue



You have received an Air Waybill with a general description of "Frozen Embryos".  
What do you suspect this item may have?  
Select the right answers then click on SUBMIT.

- Refrigerated liquefied gas
- Infectious substances
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Continue



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Continue



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Continue



You have received an Air Waybill with a general description of "Frozen Embryos".  
What do you suspect this item may have?  
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- Carbon dioxide, solid (dry ice)
- Infectious substances
- Refrigerated liquefied gas

**Incorrect**

FROZEN EMBRYOS may contain refrigerated liquefied gas or Carbon dioxide, solid (dry ice) as per DGR 2.2.4.

Continue



You have received an Air Waybill with a general description of "Frozen Embryos".  
What do you suspect this item may have?  
Select the right answers then click on SUBMIT.



- Infectious substances
- Refrigerated liquefied gas
- Carbon dioxide, solid (dry ice)

**Incorrect**

FROZEN EMBRYOS may contain refrigerated liquefied gas or Carbon dioxide, solid (dry ice) as per DGR 2.2.4.

Continue





Which shipping document needs to be checked by the acceptance personnel during the detection of undeclared dangerous goods process?  
*Select the right answers then click on SUBMIT.*

- Dangerous Goods Declaration
- Air Waybill
- Any documentary evidences from shippers that the shipment does not contain dangerous goods

Correct

Continue



What procedure should the staff follow in the event that one of the cargo packages have been suspected to contain dangerous goods?  
*Select the right answer then click on SUBMIT.*

- Staff should seek confirmation
- Refuse the package
- Accept the package

Correct

Continue



A shipping document has been received with a description of "METAL PIPING". Does it contain any hazardous substances in according to the regulations?  
*Select the right answer then click on SUBMIT.*

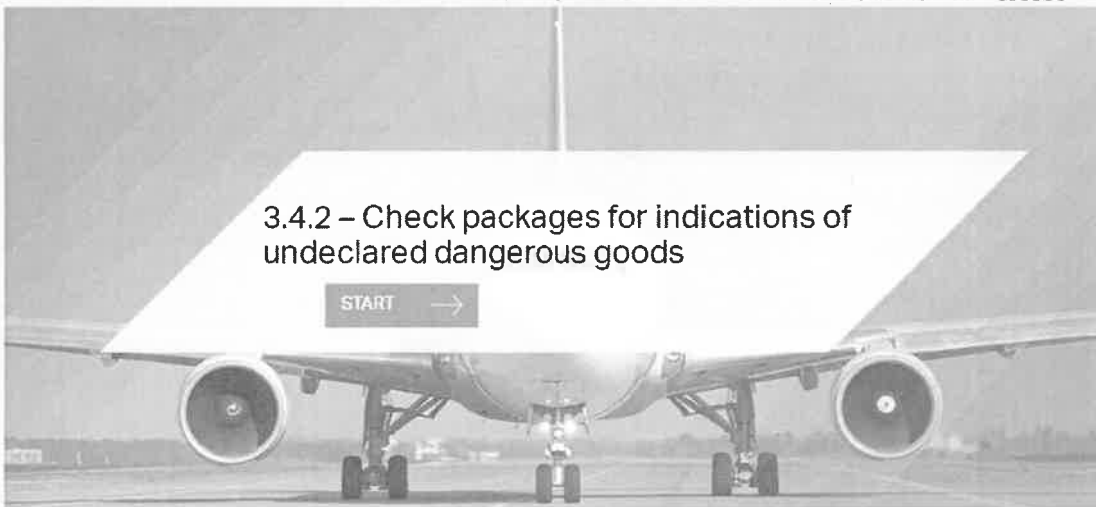
- Yes
- No

Correct

Continue



PREV



PREV

**Learning Objectives**

At the end of this training session, you should be able to:

Be aware of undeclared dangerous goods

Check packages for any indications of undeclared dangerous goods



PREV NEXT

### Undeclared Dangerous Goods

Any shipment where dangerous goods are not identified. Meaning, there is no visible indication that the package contains a dangerous material.



Missing transport document



No marks or labels



Other hazard communication



### Undeclared Dangerous Goods

Operators' acceptance staff must be adequately trained to identify and detect dangerous goods presented as general cargo



### Undeclared Dangerous Goods

When cargo is declared under general description, it may contain hazardous articles that are not apparent



Such articles may also be found in baggage



### Undeclared Dangerous Goods

Operators must also pay attention to some other indications that dangerous goods may be present



Labels and marks



GHS pictograms

### Undeclared Dangerous Goods

Here are some of the useful provisions that provide staff with information with regards to undeclared dangerous goods



DGR 2.2.4



Table B.4.A

### Undeclared Dangerous Goods

DGR 2.2.4 gives examples for items that may contain dangerous goods




*Package received with the following marks*



Chemicals - may contain items meeting any of the criteria for dangerous goods, particularly flammable liquids, flammable solids, oxidizers, organic peroxides, toxic or corrosive substances.





**Undeclared Dangerous Goods**  
Here are some of the useful provisions that provide staff with information with regards to undeclared dangerous goods



which identify substances that only pose a hazard for supply and use and may indicate the presence of dangerous goods

◀ PREV    ▶ NEXT


What types of hazard are represented by the GHS pictograms below?  
*Drag the pictograms at the right place then click on SUBMIT.*

Explosive		Aquatic toxicity	
Flammable		Corrosive	

Correct

Continue

**Other indicators**



Click on the pictures to enlarge them

Specific marking and labelling      Specific types of packaging      Physical state

◀ PREV

Other indicators



Specific marking and labelling



Other indicators



Specific types of packaging



Other indicators

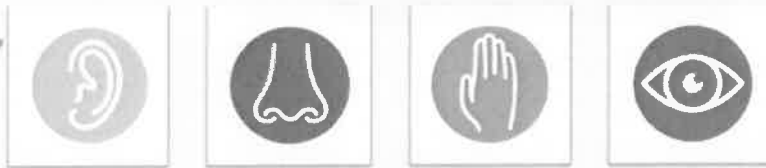


Physical state





Human senses play a major role



Identifying undeclared or hidden dangerous goods



Will you accept these packages?  
Select the right answer then click on SUBMIT.

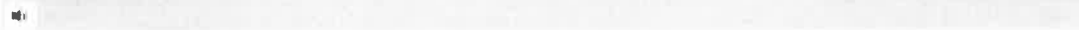


- Yes
- No



Correct

Continue



If you are one of the cargo acceptance staff, what should you do if you suspect a box that has been handed over to you in a cold state? ?  
Select the right answer then click on SUBMIT.

- Seek confirmation from the shipper
- Refuse the package
- Accept the package



Correct

Continue



Menu



← PREV

### 附件 3、教材(模組課程 7)





**Learning Objectives**  
At the end of this training session, you should be able to:

- Define dangerous goods accidents
- Provide the operator with information in case of aircraft accident

Navigation: < PREV NEXT >



**Accidents are an occurrence**

1 which results in

- Fatal or serious injury
- Major property damage
- Environmental damage

Navigation: < PREV NEXT >

Operators must report dangerous goods accidents to the:



Appropriate Authorities of the State



The State in which the accident occurred



Operators must



provide information to the emergency services

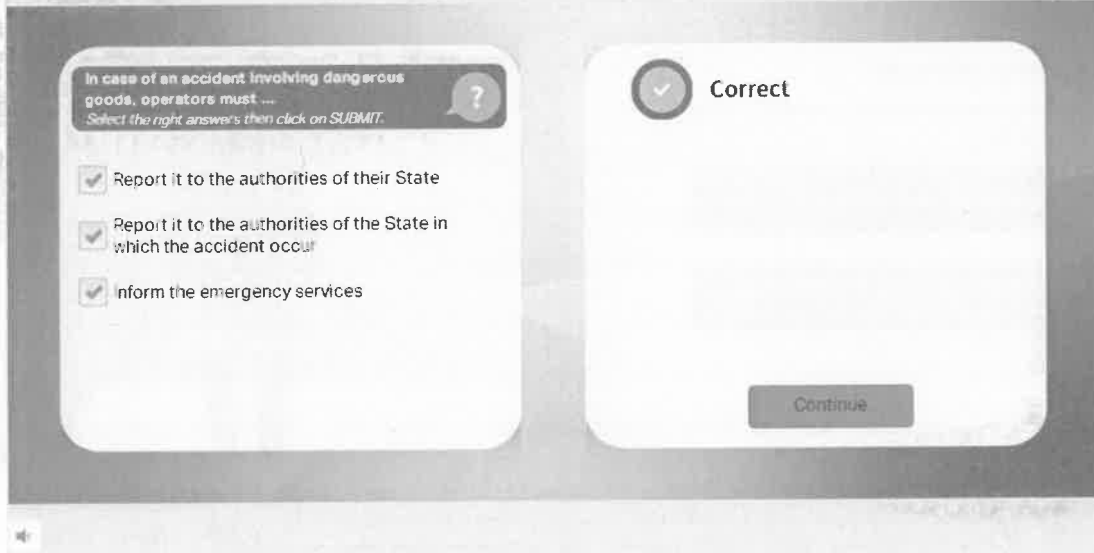
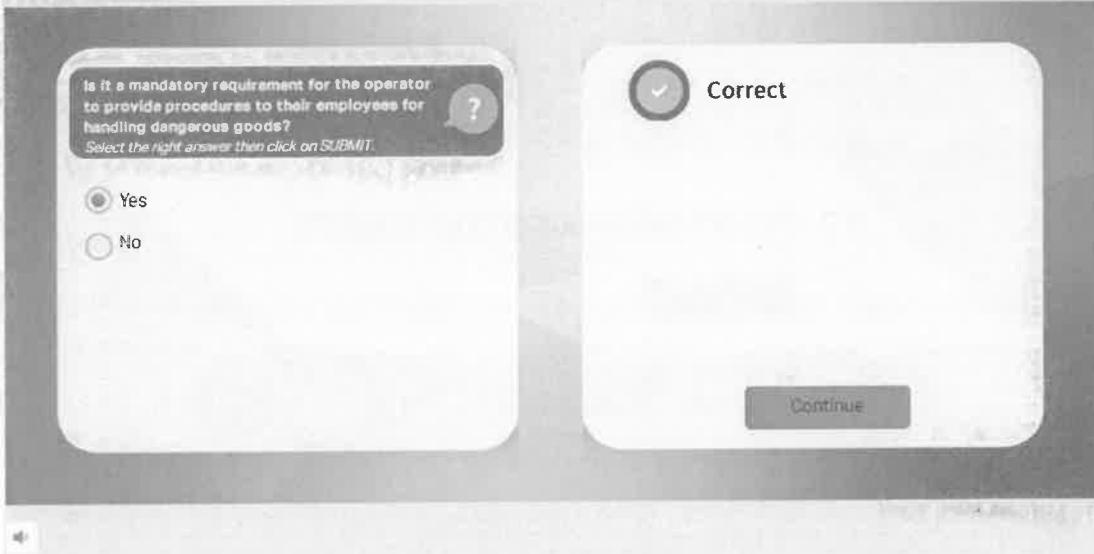


Operators must



address the provisions of aircraft in appropriate manuals





Click the exit button (EXIT)

EXIT

PREV

7.2 - Report dangerous goods incidents

START →

**Learning Objectives**

At the end of this training session, you should be able to:

- Define dangerous goods incidents
- Provide the operator with information in case of aircraft incidents

PREV NEXT



Incident is an occurrence

1 which results in



Injury to a person



Property or environmental damage



Spillage or leakage



Incidents may also involve dangerous goods that are not subjected to all or part of the Regulations



Operators must report dangerous goods incidents to the:



Appropriate Authorities of the State



The State in which the accident occurred



Operators must



provide information to the emergency services



Operators must



address the incident contingency plans in appropriate manuals

◀ PREV NEXT ▶



◀ PREV NEXT ▶

Dangerous Goods Incident must be reported to the...  
*Select the right answers then click on SUBMIT.*

- Airport authority
- Authority of the State of the operator
- Authority of the State of origin

Correct

Continue

Click the exit button to exit

EXIT

PREV

7.3 - Report undeclared/mis-declared dangerous goods

START →



**Learning Objectives**

At the end of this training session, you should be able to:

Report undeclared/mis-declared dangerous goods in cargo or mail

PREV NEXT




**Operators must**



Report when undeclared or mis-declared dangerous goods are discovered

◀ PREV    NEXT ▶

**Operators**






Must report when dangerous goods not permitted under passenger and crew provision are discovered

To be advised by the entity that discovered the dangerous goods

◀ PREV    NEXT ▶

**Reports must be made available to**



Appropriate authorities of the State of the operator

The State in which this incident occurred

◀ PREV    NEXT ▶

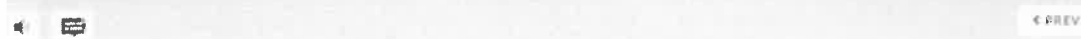


In the occasion of an undeclared dangerous goods discovered in mail, operators must ...  
*Select the right answers then click on SUBMIT.*

- Report it to the authority of the State
- Report it to the authorities of the State in which dangerous goods have been discovered
- Report it to the company's HO

**Correct**

Continue





## 附件 4、測驗試題





Dangerous Goods are articles and substances which are capable of posing \_\_\_\_\_ (1 mark)

- A) a risk to property and the environment
- B) a hazard to health and safety
- C) a risk to health, safety, property and the environment
- D) a hazard to health, safety, property and the environment

IATA Dangerous Goods Regulations are applicable to \_\_\_\_\_. Select all correct options. (1 mark)

- Airlines
- Civil Aviation Authority
- Shippers
- Airports

What are some of the general philosophy's principles behind the IATA Dangerous Goods Regulations? Select all correct options. (1 mark)

- Correct classification of Dangerous Goods
- Use of packaging that meets the prescribed specifications
- Use the correct address for shipper and consignee
- To allow the transport of forbidden items

The employer must ensure that personnel are competent to perform any function for which they are responsible. This must be achieved through training and assessment commensurate with the functions for which they are responsible. What are the 3 main elements of dangerous goods training? (1 mark)

- A) General familiarization, function-specific and safety training
- B) Customer service, marketing, sales
- C) Compensation, claims, refunds
- D) Cash handling, routing, media relations

What should passenger check-in staff do when they are presented with baggage that they suspect may contain dangerous goods? (1 mark)

- A) Refuse to transport the cargo or baggage
- B) Inquire about the contents
- C) Contact a customs official for advice
- D) Isolate the cargo or baggage and keep away 25m

Personnel must be adequately trained to identify and detect Dangerous Goods presented as general cargo. Such personnel are \_\_\_\_\_. Select all correct options. (1 mark)

- cargo acceptance and passenger check-in staff
- dispatcher and flight operations staff
- reservations and sales staff
- engineering staff

Can "strike anywhere" matches be taken on an aircraft by passengers? (1 mark)

- A) Yes, in carry-on baggage
- B) Yes, in checked baggage
- C) Yes, on one's person
- D) No, they are forbidden

Who is responsible for the loading of dangerous goods into an aircraft? (1 mark)

- A) The packer
- B) The shipper
- C) The operator
- D) The freight forwarder

Passengers must be informed about forbidden Dangerous Goods by \_\_\_\_\_. (1 mark)

- A) the airport authority
- B) the operator
- C) civil aviation authority
- D) the council

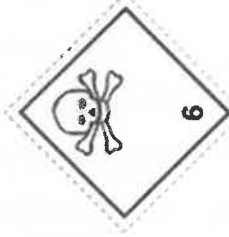
What is the term used in the IATA Dangerous Goods Regulations for the more restrictive requirements submitted by countries (governments) and airlines (operators)? (1 mark)

- A) Not otherwise specified
- B) State and Operator variations
- C) More restrictive requirement than ICAO
- D) Country and airline differences

The term risk can be defined as \_\_\_\_\_. Select all correct options. (1 mark)

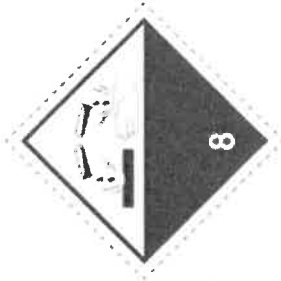
- a condition potentially causing reduction of ability to perform a prescribed function
- a severity of an event
- a condition of potentially causing injuries to personnel
- a probability for an event to occur

Which UN Hazard Class/Division is represented by the following label? (1 mark)



- A) Toxic gas
- B) Toxic substance
- C) Infectious substance
- D) Dangerous when wet

Which UN Hazard Class/Division is represented by the following label? (1 mark)



- A) Corrosive
- B) Oxidizer
- C) Infectious substances
- D) Miscellaneous Dangerous Substances and Articles, Including Environmentally Hazardous Substances

When preparing any package of Dangerous Goods, the Shipper must comply with \_\_\_\_\_. Select all correct options. (1 mark)

- packing groups requirements
- loading requirements
- ullage requirements
- inspection requirements

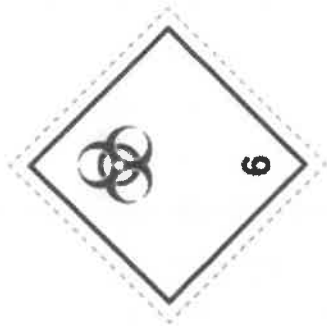
A solution of two substances containing Class 8 of Packing Group I (liquid) and Class 3 of Packing Group I. The primary hazard for the mixture is 8. TRUE or FALSE? (1 mark)

- A) TRUE
- B) FALSE

Which are the correct phrase(s) to appear in the "Handling Information" box on the Air Waybill, when a Dangerous goods consignment requires a Shippers Declaration? Select one or more. (1 mark)

- Dangerous goods as per attached DGD
- Net quantity
- Shipment is accepted

Which UN Hazard Class and Division does the following label represent? (1 mark)



- A) Class 3
- B) Division 6.2
- C) Division 4.2
- D) Class 8

Which UN Hazard Class and Division does the following label represent? (1 mark)



- A) Division 4.1
- B) Division 4.2
- C) Division 4.3
- D) Division 2.1

What is the shape of the dangerous goods hazard labels? (1 mark)

- A) Square and set at 45°
- B) Triangular
- C) Round
- D) Rectangular

What are some of the corrective action that needs to be taken for any emergency involving dangerous goods? Select all correct options. (1 mark)

- Advise supervisor
- Isolate the aircraft
- Register the entry in your logbook
- Identify the substances involved

It is NOT important to be familiar with your the local requirements. However, you should be aware of the local emergency contacts. TRUE or FALSE? (1 mark)

- A) TRUE
- B) FALSE

The operator must ensure that for consignments requiring a Shipper's Declaration for Dangerous Goods, appropriate information is immediately available at all times for use in an emergency response situation. TRUE or FALSE? (1 mark)

- A) TRUE
- B) FALSE

It is the airport authority responsibility in providing information regarding actions to be taken in the event of an emergency involving dangerous goods. TRUE or FALSE? (1 mark)

- A) TRUE
- B) FALSE

In order to identify and detect dangerous goods present as general cargo, the operators' acceptance staff must ..... (1 mark)

- A) have understanding in their processes
- B) be adequately trained
- C) be vigilant during the acceptance process
- D) have enough instructions from their supervisor

A shipment has been declared as "AUTOMOBILE SUPPLIES". What hidden hazards could be suspected of being inside? (1 mark)

- Flare extinguishers
- Oxidizers
- Organic peroxides
- Fuel tanks

A package has been received with the following marking. What hazards could be suspected of being inside? Select all correct options. (1 mark)



(click on image to enlarge)

- Explosive pyrotechnic devices
- Magnetized materials
- Golf carts
- Wet batteries

Undeclared dangerous goods can be defined as \_\_\_\_\_. (1 mark)

- A) any shipment where no proper documentation has been received
- B) any shipment where no evidence for damage or leakage
- C) any shipment where Dangerous Goods are not apparent
- D) any shipment where no DGD has been provided

Dangerous Goods incidents that are not subject to the IATA DGR must be reported (e.g. short-circuiting of a dry cell battery). TRUE or FALSE? (1 mark)

- A) TRUE
- B) FALSE

What is meant by the term "A Dangerous Goods Incident"? Select all correct options. (1 mark)

- Fatal injury
- Injury to a person
- Environmental damage
- Possible leakage of fluid

The operator must report any occasion when dangerous goods not permitted under the passenger and crew provision are discovered on a person. TRUE or FALSE? (1 mark)

- A) TRUE
- B) FALSE



## 附件 5、訓練證書



Congratulations!

**Yeh Chiakuei**

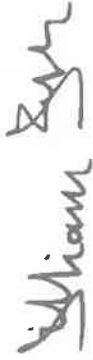
You have completed the IATA e-Learning course

**Dangerous Goods Regulations (DGR) for General Cargo Accepting and Processing Personnel**

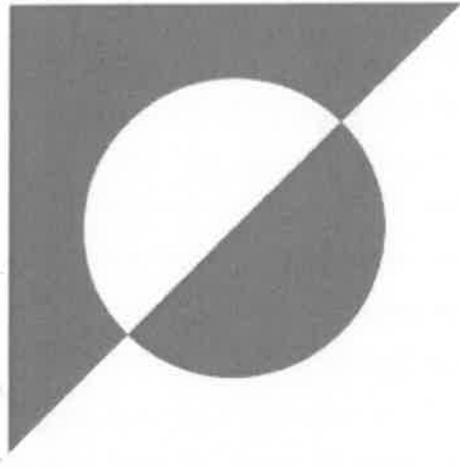
according to the provisions of the IATA Dangerous Goods Regulations (DGR) - Appendix H 6.2  
Personnel responsible for processing and accepting goods presented as general cargo

**December 8, 2022**

This certificate is valid for 24 months from the date of issue listed above



Willie Walsh  
Director General and CEO



0000172322



