



消防處

Fire Services Department

# **FSD Connects** **with the Relevant Industries of** **Dangerous Goods**

**31 January 2024**

# AGENDA

Introduction

**Mr. POON Wai-lok**

Topic 1: Amendment of Schedule 2 of Cap. 295E and CoP

**Mr. CHAK Ka-chun**

Topic 2: Facilitation Measures for DG Licence/Approval Application

**Mr. KU Chow-long**

Topic 3: Approval of Pressure Receptacle for Hydrogen Tube(s) connected with manifold(s)

**Mr. CHAU Choi-lung**

Q & A Session

**All Speakers**



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Fire Services Department

## Amendment of Schedule 2 of Cap. 295E and CoP

### 第295E章 《2012年危險品(適用及豁免)規例》 附表2和 《管制陸上危險品工作守則》 的修訂

Senior Station Officer

CHAK Ka-chun

Dangerous Goods Legislative Division

Licensing and Certification Command

Fire Services Department

# Background



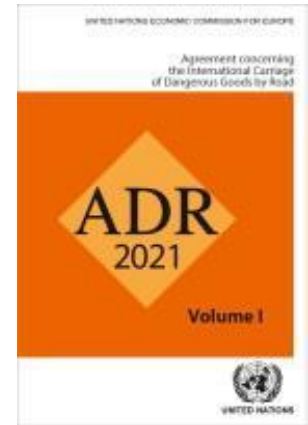
Cap 295  
Dangerous Goods  
Ordinance  
**(1956)**



Air Transport



Sea Transport



Land Transport



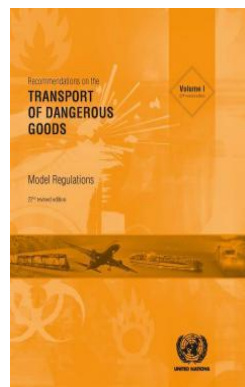
# Background



危險貨物運輸專家小組委員會  
Sub-Committee of Experts on the Transport of  
Dangerous Goods



國際海事組織  
International Maritime Organisation



關於危險貨物運輸的建議書 – 章規範本  
Recommendations on the Transport of  
Dangerous Goods – Model Regulations



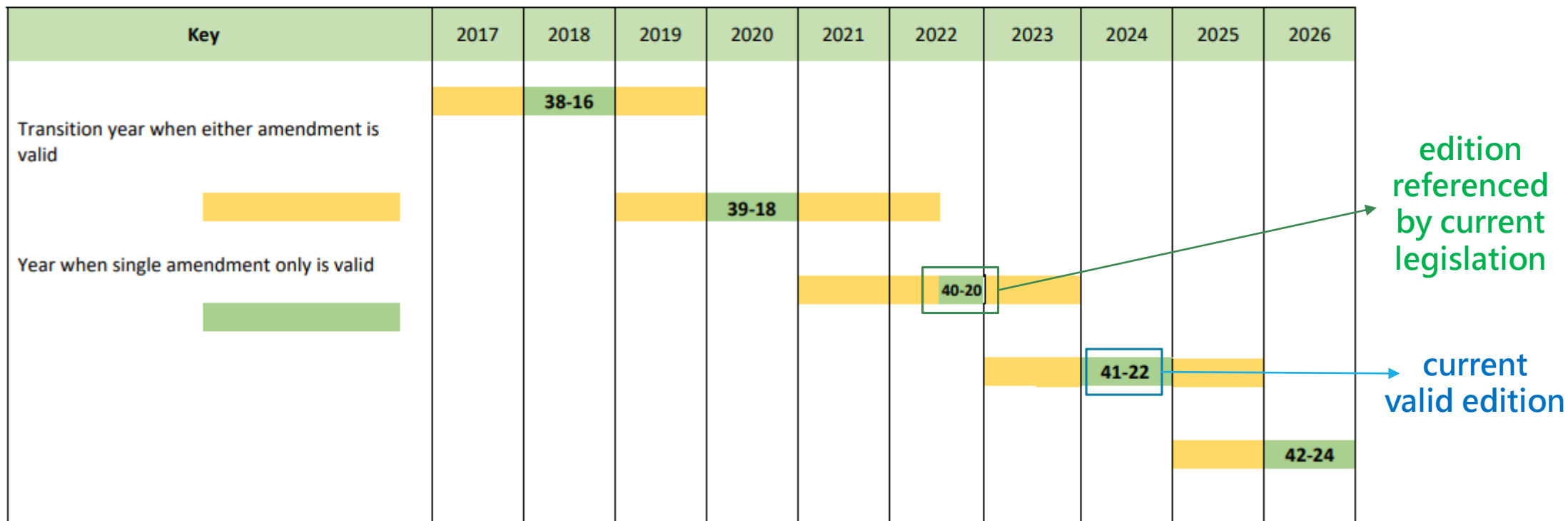
國際海運危險貨物規則  
The International Maritime  
Dangerous Goods Code (IMDG)

*updated  
biennially*



# Background

## IMDG Code Amendment Cycle 2017-2026



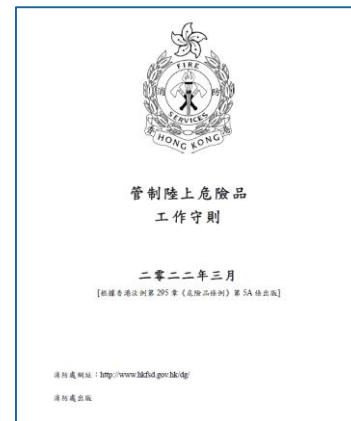
# Scope of amendment



國際海運危險貨物規則  
The International Maritime  
Dangerous Goods Code  
(IMDG)



Schedule 2 to the Dangerous Goods (Application  
and Exemption) Regulation 2012 (Cap. 295E)



Code of Practice for Control of  
Dangerous Goods on Land



# Proposed amendments on Schedule 2

## S2DG proposed amendments

UN No.	Proper Shipping Name / Packing Group (if any)	Class	Sub. Haz.	GEQ (units)	IEQ (units)	SEQ (units)	LQ (units)	MPS (units)	Specifications
1169	液態萃取香料 / PG II EXTRACTS, AROMATIC, LIQUID / PG II	3	<del>Nil</del>	25	150	<del>Nil</del>	5	1	
1169	液態萃取香料 / PG III EXTRACTS, AROMATIC, LIQUID / PG III	3	<del>Nil</del>	25	150	<del>Nil</del>	5	1	
1197	液態萃取調味劑物 / PG II EXTRACTS, FLAVOURING, LIQUID / PG II	3	Nil	25	150	Nil	5	<del>1</del> Nil	用作調味劑或香料 for flavour or aroma
1197	液態萃取調味劑物 / PG III EXTRACTS, FLAVOURING, LIQUID / PG II	3	Nil	25	150	Nil	5	<del>1</del> Nil	用作調味劑或香料 for flavour or aroma
1891	乙基溴 / PG II ETHYL BROMIDE / PG II	3 <del>6.1</del>	6.1 <del>Nil</del>	25 10	150 20	Nil	1 0.1	Nil	
2522	2-二甲氨基甲基丙烯酸乙酯，穩定的 / PG II DIMETHYLAMINOETHYL METHACRYLATE, STABILIZED / PG II	6.1	Nil	10	20	Nil	0.1	Nil	
3550	氫氧化鈷粉末 / PG I COBALT DIHYDROXIDE POWDER / PG I	6.1	Nil	Nil	Nil	Nil	Nil	Nil	含有不少於10% 的可吸入顆粒 Containing not less than 10% respirable particles





# Proposed amendments on Schedule 2

## S2DG proposed amendments

UN No.	Proper Shipping Name / Packing Group (if any)	Class	Sub. Haz.	GEQ (units)	IEQ (units)	SEQ (units)	LQ (units)	MPS (units)	Specifications
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Merging of  
UN 1169 &  
UN 1197



# Proposed amendments on Schedule 2

## S2DG proposed amendments

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1891	乙基溴 / PG II ETHYL BROMIDE / PG II	3 <del>6.1</del>	6.1 <del>Nil</del>	25 <del>10</del>	150 <del>20</del>	Nil	1 <del>0.1</del>	Nil	
2522	2-二甲氨基甲基丙烯酸乙酯 · 穩定的 / PG II DIMETHYLAMINOETHYL METHACRYLATE, STABILIZED / PG II	6.1	Nil	10	20	Nil	0.1	Nil	
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Change of class & exempt quantities



# Proposed amendments on Schedule 2

## S2DG proposed amendments

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Amendment of proper shipping name



# Proposed amendments on Schedule 2

## S2DG proposed amendments

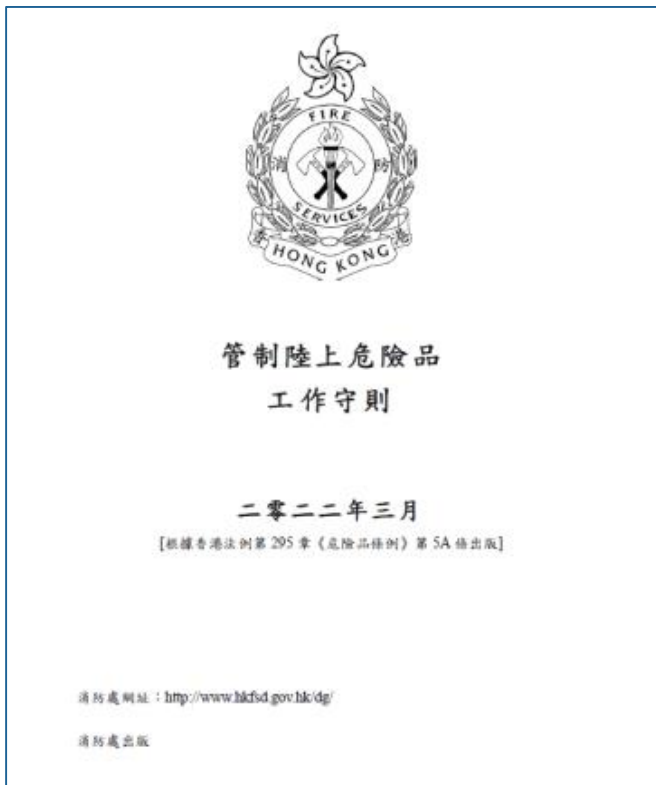
UN No.	Proper Shipping Name / Packing Group (if any)	Class	Sub. Haz.	GEQ (units)	IEQ (units)	SEQ (units)	LQ (units)	MPS (units)	Specifications
4169	液態萃取香料 / PG II EXTRACTS, AROMATIC, LIQUID / PG II	3	<del>Nil</del>	25	150	<del>Nil</del>	5	1	
4169	液態萃取香料 / PG III EXTRACTS, AROMATIC, LIQUID / PG III	3	<del>Nil</del>	25	150	<del>Nil</del>	5	1	
1197	液態萃取調味劑物 / PG II EXTRACTS, FLAVOURING, LIQUID / PG II	3	Nil	25	150	Nil	5	<del>1</del> Nil	用作調味劑或香料 for flavour or aroma
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← New item



# Proposed amendments on CoP

## CoP proposed amendments



About **70** extra consequential and technical amendments are required to update in the COP. They are mainly :

1. update of definitions, toxicity data and packing instructions;
2. addition of total 4 new product formulations to the lists of Class 4.1 self-reactive substances (2.2.4.5) and Class 5.2 organic peroxide (2.2.5.4);
3. change of compatibility among the DG items. Removing the distinction between “acid” and “strong acid” in compatibility groups and hence consequential amendments in the compatibility rule.
4. clarification on certain DG items specification of UN 1002 AIR, COMPRESSED and UN 1012 BUTYLENE; and
5. clarification on some pressure receptacles provisions; etc.

UN 1439  
重鉻酸銨  
AMMONIUM  
DICHROMATE



# Future plan

<u>Legislative Procedures</u>	<u>Tentative Date</u>
Stakeholder Consultation	11.2023 – 1.2024
Gazette	6.2024
Tabled at Legislative Council for negative vetting	6.2024
Commencement date	1.1.2025





消防處

Fire Services Department

# Facilitation Measures for DG Licence/ Approval Application

## 申請危險品牌照及批准的便利措施

Senior Station Officer

KU Chow-long

Dangerous Goods Control Division

Licensing and Certification Command

Fire Services Department

# Facilitation Measures

1	Licence/ Approval Application <b>Workshops</b>
2	Recorded <b>FSD Connects</b> available online (Tips for application, Safety Data Sheets, Common Mistakes, Sample for FSR)
3	Allowing rectification of <b>minor</b> discrepancies
4	Provide <b>electronic</b> submission channel



*FSD Connects*



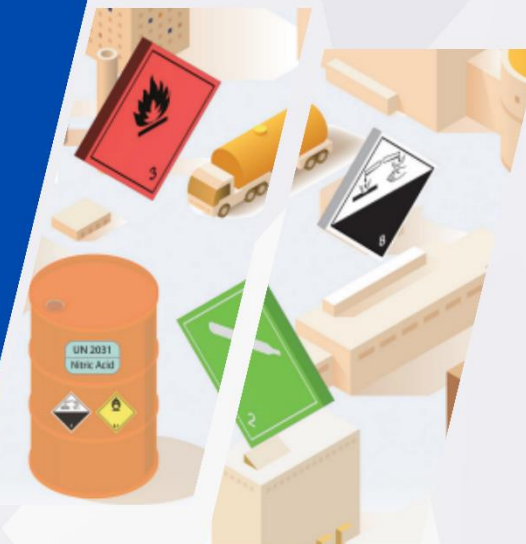


# Hotline: 2417 5757

**Address: 3/F & 4/F, Fire Services Department, Kwai Chung Office Building, 86 Hing Shing Road, Kwai Chung**



香港消防處



**新修訂危險品條例經已生效  
請盡快按新法例換領牌照**

換領危險品牌照的所需文件



- ✓ 申請表格
- ✓ 化學品安全技術說明書
- ✓ 危險區圖則

歡迎致電危險品管制課熱線 ☎ 2417 5757  
專責個案主任將為你的申請提供一站式服務

# Application Procedure

*FSD Connects – Apply Licence Procedure*



Stage	Procedure	
Pre-Application	General Building Plans (GBP)	
1	Application	
2	Issue Fire Safety Requirements (FSR)	
3	Compliance Inspection	
4	Issue Licence/ Approval	





## Guideline for Application Form



FIRE SERVICES DEPARTMENT

香港消防處

Application for / Renewal of

Manufacture Licence for Schedule 2 Dangerous Goods /

Store and Use Licence for Schedule 2 Dangerous Goods

附表 2 危險品製造牌照/附表 2 危險品貯存暨使用牌照的申請/續期

*[This form is only applicable to application / renewal of licence during transitional period]*

*[此表格只適用於過渡期間的牌照申請/續期]*

For Internal Use Only 只供內部填寫  
LIFIPS Case No.:  
File Ref.:  
Receiving Officer:  
Receipt Date:

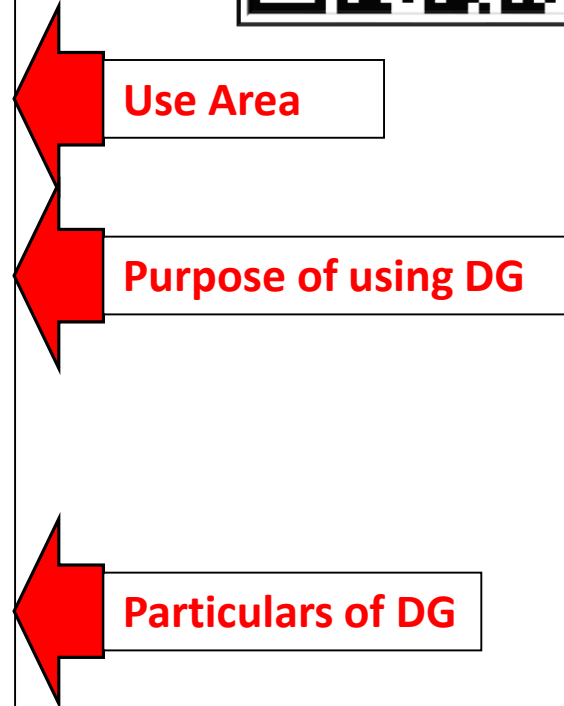
Section A 甲部	
Part 1: Nature of Application 第一部份：申請類別	
<input type="checkbox"/> Renewal Application under Dangerous Goods (General) Regulations, Cap. 295B 根據第 295B 章《危險品(一般)規例》申請續牌 *The last valid date to be endorsed on Cap. 295B Licence is 30 March 2024 *Cap. 295B 牌照可批註的最後有效日期為 2024 年 3 月 30 日 # Please skip Parts 4 & 5 of Section D # 不用填寫丁部第四及第五部份	
<input type="checkbox"/> Licence Application under Dangerous Goods (Control) Regulation, Cap. 295G 根據第 295G 章《危險品(管制)規例》申請牌照 *Applicable to i) New Applicant and ii) Cap. 295B Licensee *適用於 i) 新申請人 和 ii) 第 295B 章牌照持有人	
<input type="checkbox"/> Renewal Application under Dangerous Goods (Control) Regulation, Cap. 295G 根據第 295G 章《危險品(管制)規例》申請續牌 *Applicable to Cap. 295G Licensee *適用於第 295G 章牌照持有人 # Please skip Parts 4 & 5 of Section D # 不用填寫丁部第四及第五部份	

Section B 乙部	
Part 2a: Particulars of Applicant (Please attach supplementary sheet(s) if space provided is insufficient) 第二 a 部份：申請人資料 (如空位不敷應用，請另用附頁)	
<input type="checkbox"/> Applicant is a company 申請人為公司 <input type="checkbox"/> Applicant is an individual / a sole proprietorship / a partnership 申請人為個人 / 獨資業務 / 合股業務	
Licence Number (if applicable) 牌照編號 (如適用)	Expiry Date 屆滿日期 (DD/MM/YYYY)
Name of Applicant 申請人名稱	(English) (中文)

Location(s) at which the S2DG may be used (if applicable) 有關附表 2 危險品的使用地點 (如適用)		For Type 2 適用於種類二 *Please submit plan if the location is inexplicable as an address *如無法以地址說明，請提交圖則說明						
Workshop No. 5, G/F, Block 3, ABC Industrial Building, ABC Road, Tsuen Wan, N.T / 新界荃灣 ABC 路 ABC 工業大廈 3 座地下 5 號工作室		**如未能用文字表達，可參考 樣本 2**						
Purpose of using the S2DG 使用附表 2 危險品的目的		For Type 2 適用於種類二						
供予發電機使用								
Part 5: Particulars of S2DG (please attach supplementary sheet(s) if space provided is insufficient) 第五部份：附表 2 危險品的資料 (如空位不敷應用，請另用附頁)								
Hazard No. 危險類別	UN No. / HK No. 聯合國編號 / 香港編號	Proper Shipping Name - (Please provide description of relevant dangerous goods on existing licence) 危險品名稱 (如新註冊危險品，請提供現行牌照的相關描述)	Classification 類別	Subsidiary Hazard 次要危險性 (if any) (如有)	Packing Group 包裝類別 (if any) (如有)	Compatibility Group (CG) and Compatibility Rule (CR) <sup>a</sup> 相容組別和相容規則 <sup>a</sup> (if any) (如有)	Maximum Quantity <sup>#</sup> for Storage and Use in Aggregate 總共貯存和使用的最大分量 <sup>#</sup> <small>*Delete as appropriate 刪去不適用者</small>	Storage in Tank 貯存在罐
1	H301	DIESEL OIL (Diesel)	3A	NA	III	NA	3000 L/kg <sup>a</sup>	<input type="checkbox"/>
2							L/kg <sup>a</sup>	<input type="checkbox"/>
3							L/kg <sup>a</sup>	<input type="checkbox"/>
							L/kg <sup>a</sup>	<input type="checkbox"/>
							L/kg <sup>a</sup>	<input type="checkbox"/>
							L/kg <sup>a</sup>	<input type="checkbox"/>
							L/kg <sup>a</sup>	<input type="checkbox"/>
							L/kg <sup>a</sup>	<input type="checkbox"/>
							L/kg <sup>a</sup>	<input type="checkbox"/>
10							L/kg <sup>a</sup>	<input type="checkbox"/>



可掃描此 QR Code 搜尋更多危險品類別及其他資料





14. Transport information

<b>DOT</b>	
UN-No	UN2214
Proper Shipping Name	PHthalic ANHYDRIDE
Hazard Class	8
Packing Group	III
<b>TDG</b>	
UN-No	UN2214
Proper Shipping Name	PHthalic ANHYDRIDE
Hazard Class	8
Packing Group	III
<b>IATA</b>	
UN-No	UN2214
Proper Shipping Name	PHthalic ANHYDRIDE
Hazard Class	8
Packing Group	III
<b>IMDG/IMO</b>	
UN-No	UN2214
Proper Shipping Name	PHthalic ANHYDRIDE
Hazard Class	8
Packing Group	III

Step 1: Check SDS



Step 2: Visit DG Thematic Website / Code of Practice Ch. 2.3



Successfully obtain EQ & CG & CR

2214

-Class- -Subsidiary Hazard- -Maximum Package Size- -Compatibility-

Search icon

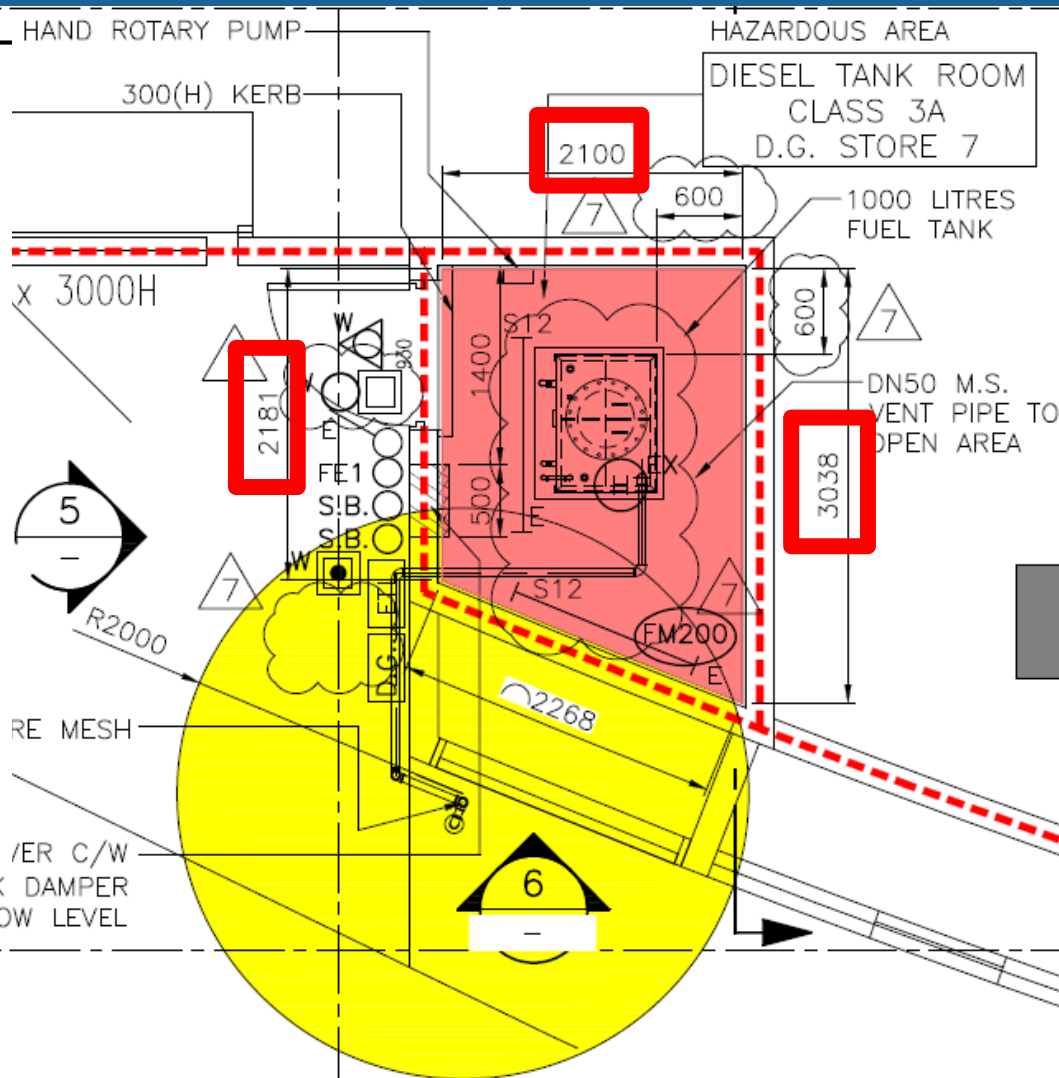
UN No. / HK No.	Proper Shipping Name / Packing Group (if any)	Class	Subsidiary Hazard	Maximum Package Size	Compatibility
2214	PHthalic ANHYDRIDE / PG III	8	None	None	CG1, CR6, CR19

# Common Discrepancies

FSD Connects: Tips for layout plans



STORE	NO.7
D.G.. CATEGORY	CLASS 3A
EXACT QUANTITY OF CHEMICAL	1000L OF DIESEL
<b>Incorrect Calculation</b>	
TOTAL AREA OF WALL AND ROOF	(2.1+3.038+2.268+2.181)x3.875=37.150m <sup>2</sup> (WALL) 5.4932m <sup>2</sup> (ROOF) TOTAL=37.150m <sup>2</sup> +5.4932m <sup>2</sup> =42.6432m <sup>2</sup> ❌
AREA OF LOUVER FOR TOTAL VENTILATION AREA	0.5x0.5x2=0.5m <sup>2</sup>
LOUVER AREA : TOTAL AREAS	0.5/42.6432=1.17%
FLOOR AREA (m <sup>2</sup> )	5.4932
CONTAINING FLOOR AREA (m <sup>2</sup> )	5.4932
RETAINING CAPACITY (CONTAINING VOLUME FLOOR AREA x SILL)	5.4932x0.3=1.6479m <sup>3</sup> (L) ❌ (1.6479m <sup>3</sup> > 1000Lx110%)
INTERNAL VOLUME (m <sup>3</sup> )	
VENTILATION RATIO : {LOUVER AREA / [(WALL LEHGH x HEADROOM) + FLOOR AREA]} x 100	{0.5/[(9.587x3.875)+5.4932]}x100=1.17% ❌



$$\frac{(3.038+2.181) \times 2.1}{2} = 5.479\text{m}^2$$

GROUND FLOOR PLAN

1:50@A1

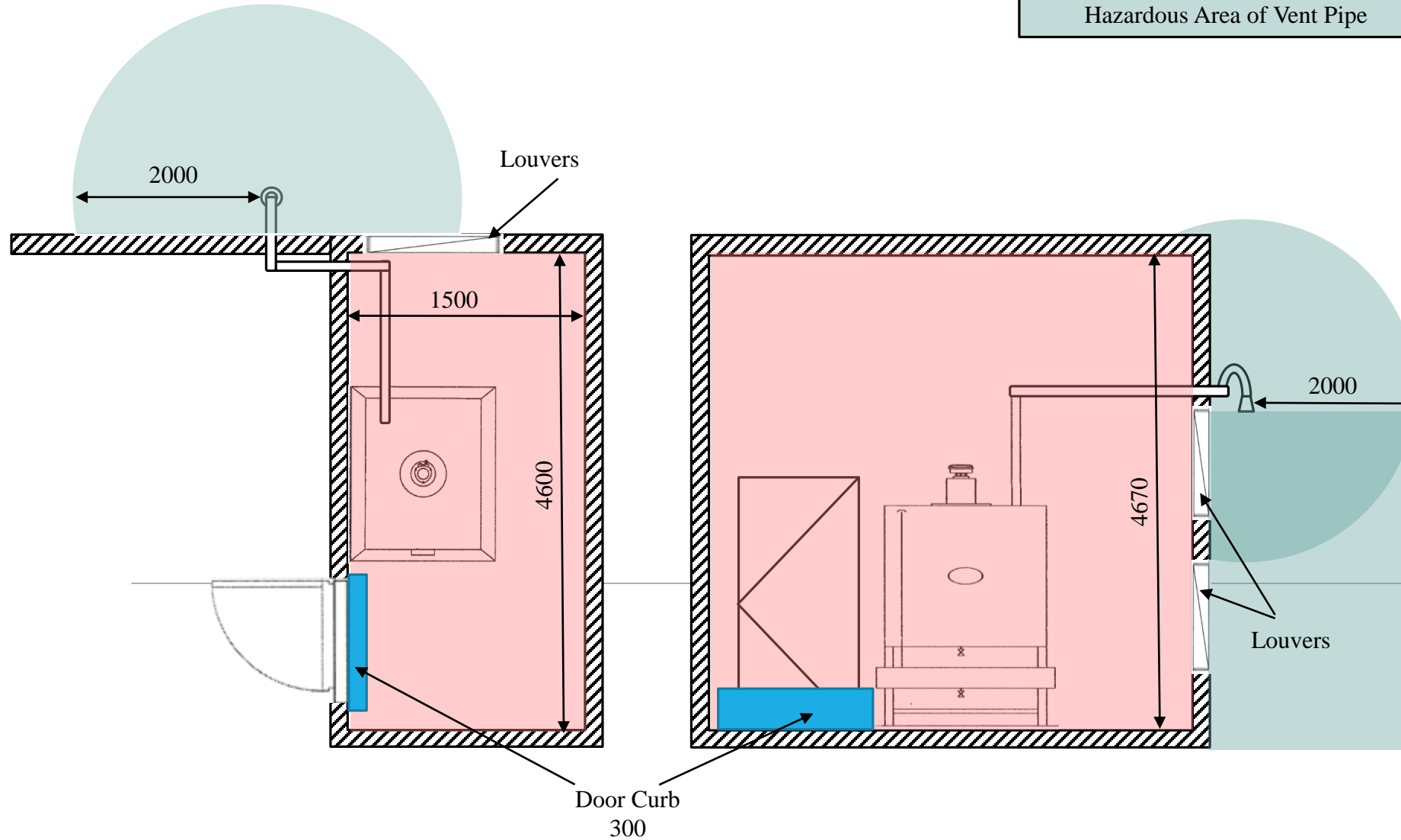
# Template for Hazardous Area Drawings

Hazardous Area of Fuel Tank Room

Hazardous Area of Vent Pipe

**Notes:**

1. All dimensions are in millimeters



**Layout plan of Fuel Tank Room**

**Elevation plan of Fuel Tank Room (Interior)**

**Every part of the Fuel Tank Room**

**2m radius** around tank venting point extending to ground / floor level

**Electrical Installations (BS EN60079)**

**Drawing Title:**  
Hazardous area plan for Fuel Tank Rooms on 1/F, XXX

**Scale:**  
Not to Scale

**Endorsed by:**

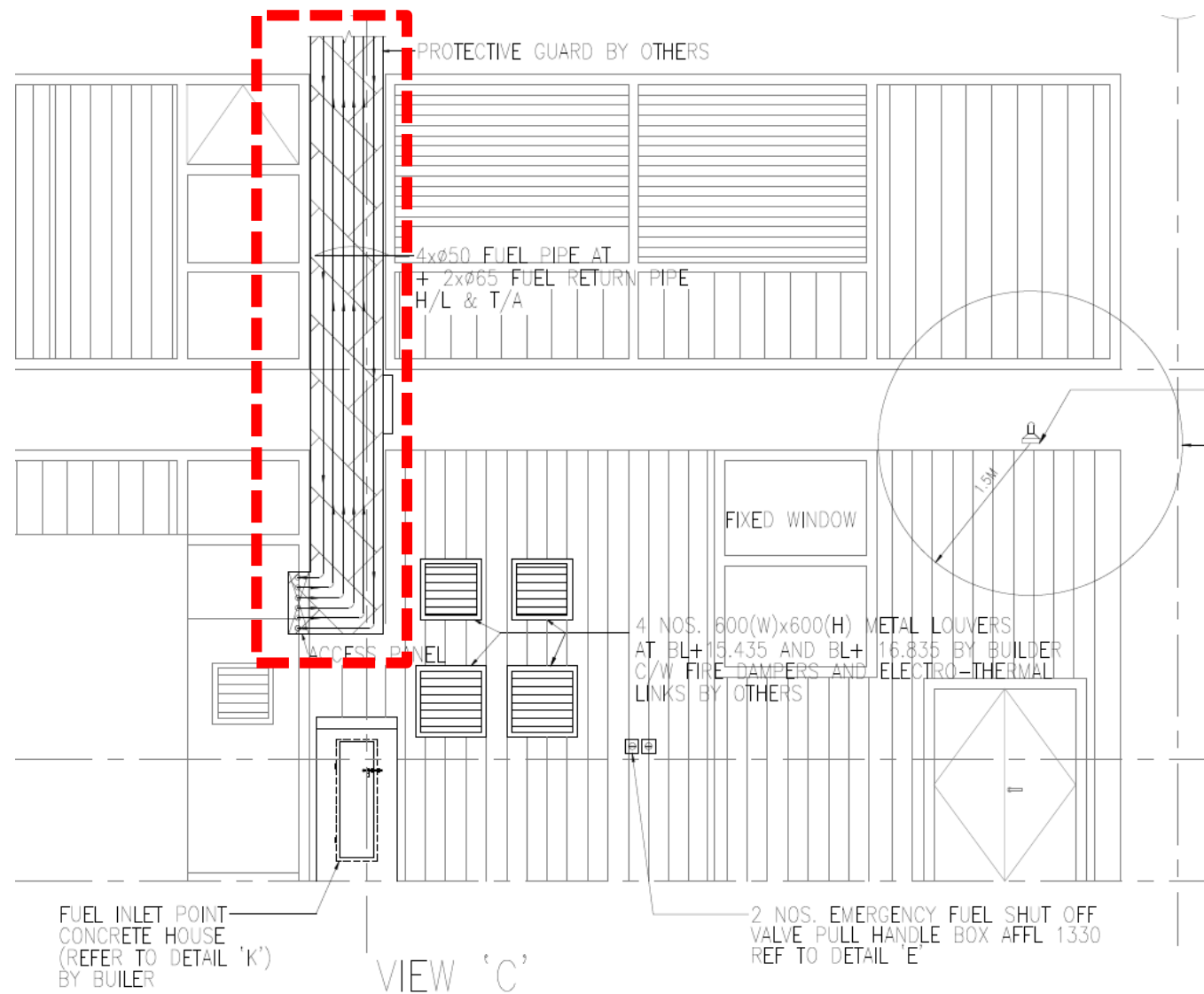
**Date:**

**Drawing No.:**  
Hazardous Area



## Routing of Fuel Pipe

- Running inside building ❌
- Passing through means of escape ❌
- Passing through common area ❌
- Passing through floors ❌
- External wall ✓





### Signs & Notices

危險品倉樣本 1

(樣本 - 標示牌位置可有所不同)



危險品倉樣本 2

(樣本 - 標示牌位置可有所不同)



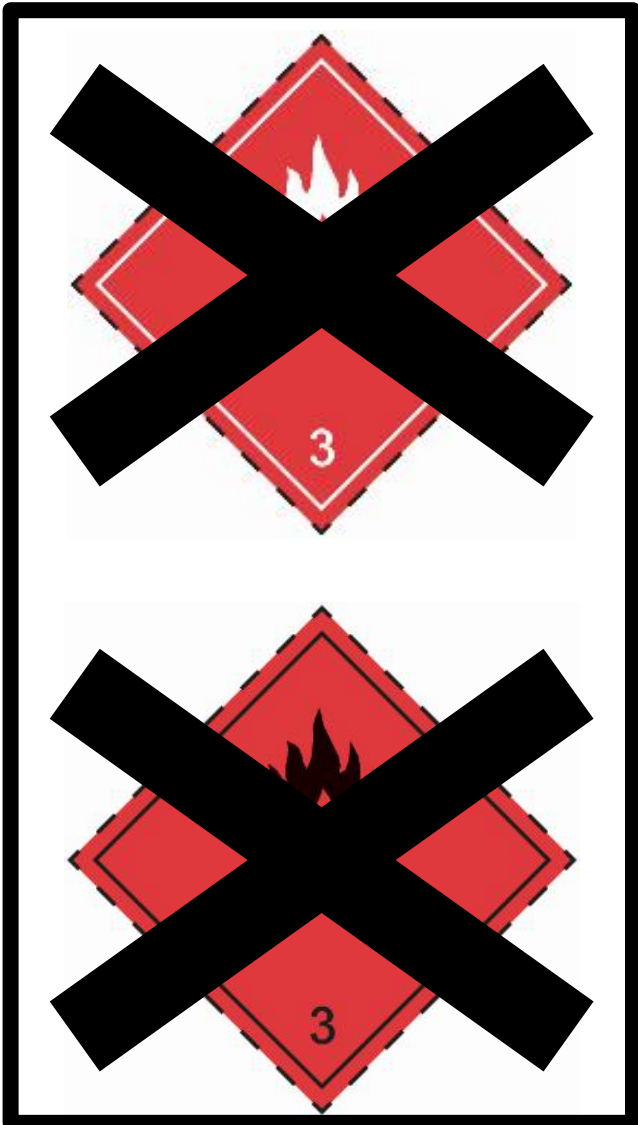


# Compliance Inspection

*FSD Connects: Tips for Compliance Inspection*



# Wrong Signage



# Wrong Signage

*FSD Connects: Tips for Compliance Inspection*



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*FSD Connects: Tips for Compliance Inspection*





### 第 3A 類處所操作手冊(樣本)

Taking the quantities of Class 3A dangerous goods in the tank together with those in packaged form (e.g. 20-litres jerricans, 200-litres drums), the operators shall not store more than 2,500 litres of such dangerous goods in aggregate in the Class 3A premises.

將貯槽內的及有包裝(例如 20 公升罐、200 公升桶)的第 3A 類危險品的數量一併計算，操作人員不得在第 3A 類處所貯存超過 2,500 公升總量的第 3A 類危險品。

The operators shall not smoke, carry a lighted cigarette, cigar or pipe in the hazardous area of the Class 3A premises.

操作人員不得在第 3A 類處所的危險區內吸煙、攜帶已點燃的香煙、雪茄或煙斗。

Except when access is required to the Class 3A premises for the inspection, maintenance or handling of the dangerous goods in it, the operators shall ensure every entrance to it to be at all times securely closed and locked.

除需要進入第 3A 類處所檢查、保養或處理倉貯危險品外，操作人員須確保處所的所有入口時刻穩固地關閉及鎖上。

The operators shall ensure that no children below the age of 14 or no persons without obtaining the permission of the ultimate owner or person in charge of the Class 3A premises enter or remain in the premises. 操作人員須確保任何未滿 14 歲的兒童或未經第 3A 類處所最終擁有人或負責人准許的人士不得進入或停留在該處所。

The operators shall only use naked flame, flame or other source of substantial heat, or other means of igniting flammable substances or vapour in the hazardous area of the Class 3A premises, on the condition that (A) prior approval of the Director of Fire Services has been obtained, or (B) the subject hazardous area has been certified free from flammable vapour after all dangerous goods have been removed from the Class 3A premises.

操作人員只准在(甲)事先獲消防處處長批准的情況下，

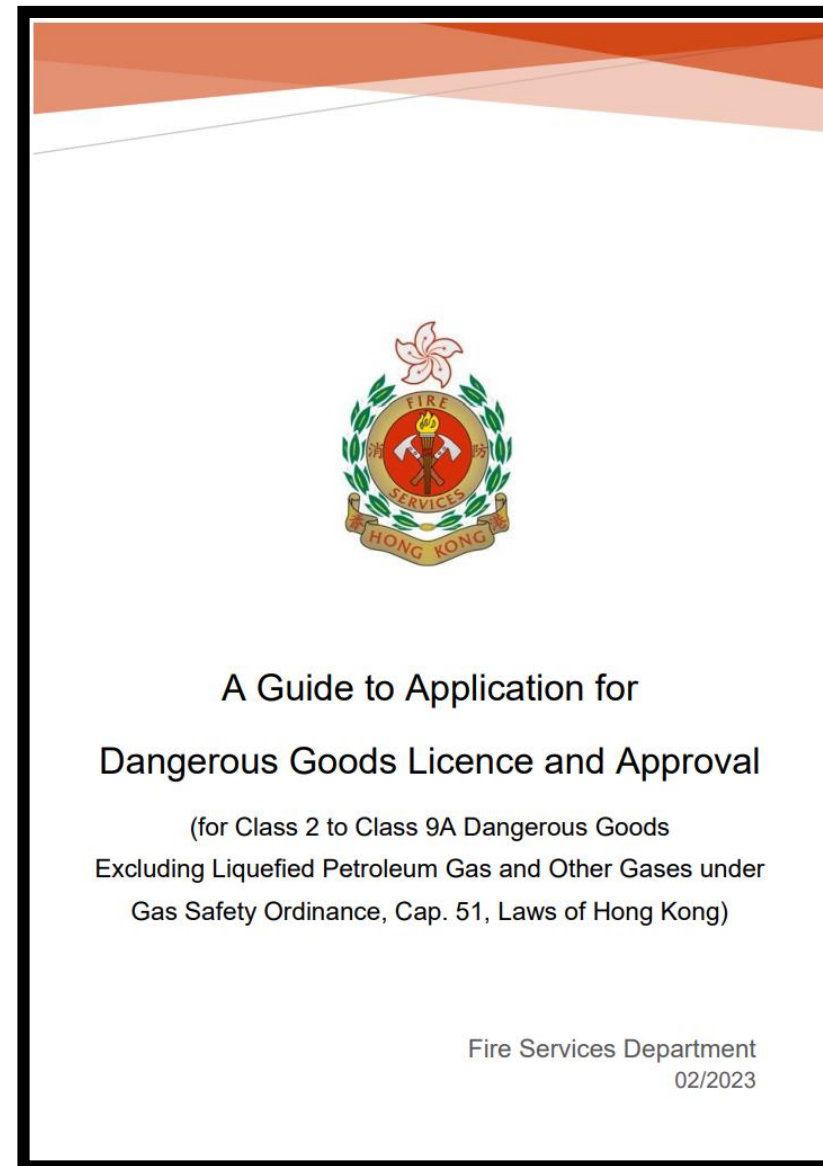
### 危險品倉樣本 2

(樣本 2 標示牌位置可有所不同)



# Dangerous Goods Thematic Website

## *A Guide to Application for Dangerous Goods Licence and Approval*



# E-Application

Electronic Submission  
of Application for  
Dangerous Goods  
Licence / Approval  
is now available on



GOVHK  
香港政府一站通



GovHK 香港政府一站通

附表2危險品製造牌照/  
附表2危險品貯存暨使用  
牌照的更改/取消

SC-605-3-FSD030-002

2) 申請表

**申請類別**

根據第 295G  
章《危險品(管制)規例》申請更改牌照

根據第 295G  
章《危險品(管制)規例》申請取消牌照

**持牌人資料**

持牌人為 \*

個人  獨資業務  合股業務  
 公司

牌照编号 \*



消防處

Fire Services Department

# Approval of Pressure Receptacle for Hydrogen Tube(s) connected with manifold(s)

## 連接歧管的氫氣管壓力容器批准

Senior Station Officer

CHAU Choi-lung

Dangerous Goods Enforcement Division

Licensing and Certification Command

Fire Services Department



# Table of Contents

- ◆ **Use of Hydrogen Tube Trailer**
- ◆ **Legislation**
- ◆ **Application Procedure**
- ◆ **Components of Hydrogen Tubes and Required Standard**
- ◆ **Common Errors**



# Use of hydrogen





Green Energy



Coolant



 <math>< 2^{\circ}\text{C}</math>  
  
NET ZERO EMISSIONS  
Limit the avg. global temperature increase to <math>< 2^{\circ}</math> centigrade + achieve net zero emissions by mid-century



# Transportation of Hydrogen



Hydrogen Transportation Pipelines



Tube Trailer



# Why application for approval is needed?

## Legislation

### s.145, Cap 295G, Dangerous Goods (Control) Regulation

- ❑ The amended Dangerous Goods Ordinance and its subsidiary legislation has come into effect on 31 March 2022
- ❑ No person shall use, or cause or permit to be used, for the storage of any gas, any cylinder or other container except of a type appropriate to the storage of such gas and approved by the Authority.



Approved by the Director



Inspected or tested by an approved person



# Why application for approval is needed?

*pressure receptacle* (壓力氣體容器) means a receptacle used for containing Class 2 S2DG under pressure, other than a boiler or a pressure vessel as defined by section 2(1) of the Boilers and Pressure Vessels Ordinance (Cap. 56);



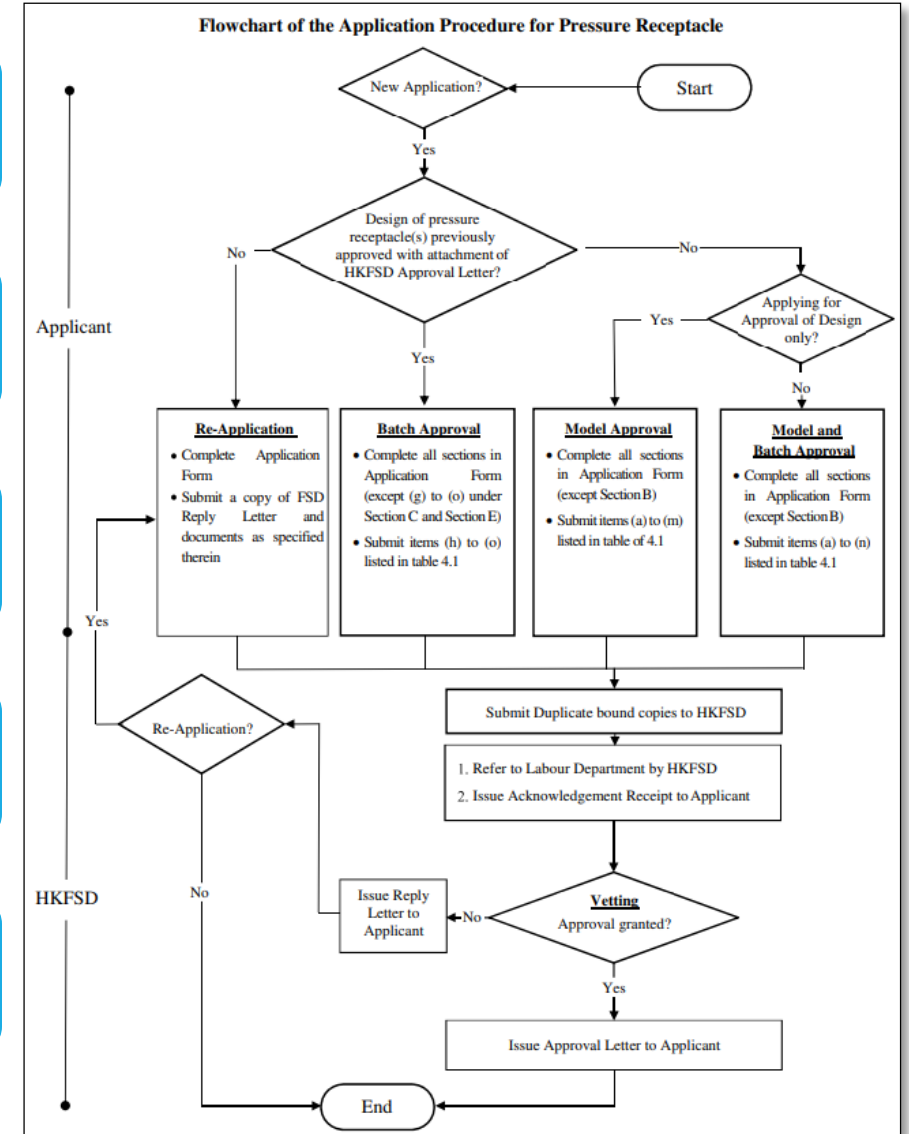
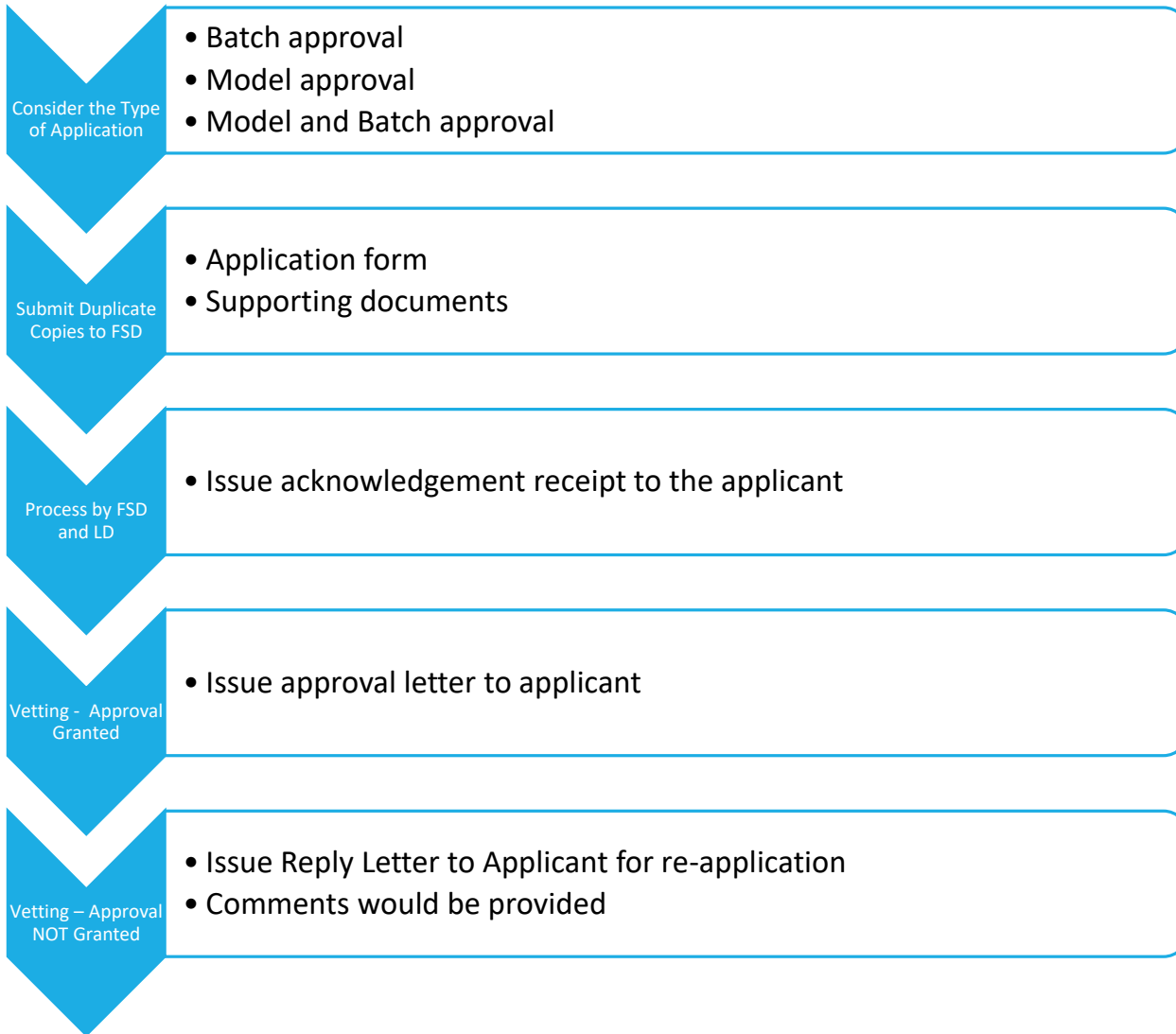
Pressure receptacles on tube trailer



VIE tank



# Application Procedure



# Application Procedure for DG Licences

## Supporting Documents for Application



Item	Supporting Document	New Application			Re- application / Submission of Supplementary Information	
		Model	Batch	Model and Batch		
(a)	Model and Design of Receptacle(s)	✓		✓	As specified in FSD's Reply Letter	
(b)	Technical Details and Drawing(s)	✓		✓		
(c)	Design Specification and Calculation	✓		✓		
(d)	Gas(es) Details	✓		✓		
(e)	Valve Specification	✓		✓		
(f)	For filament-wound composite receptacle (if applicable): (i) Life extension plan; (ii) NDE scheme; and (iii) Maintenance manuals	✓		✓		
(g)	Product Catalogue (if applicable) of: (i) Pressure Receptacle (ii) Valve	✓		✓		
(h)	Manufacturer's Certificate	✓	✓	✓		
(i)	Inspection Report issued by recognized independent inspection authority/body	✓	✓	✓		
(j)	Report of Physical Test	✓	✓	✓		
(k)	Report of Chemical Analysis of Material	✓	✓	✓		
(l)	Other Test Report(s)	✓	✓	✓		
(m)	Details of any heat treatment	✓	✓	✓		
(n)	Serial numbers of Pressure Receptacle(s)		✓	✓		
(o)	Previous FSD's approval letter(s) for respective model/design of respective Pressure Receptacle(s)		✓			
(p)	Other documents requested by FSD (if any)					
(q)	Copy of FSD's Reply Letter(s)					✓

# Standards Accepted by FSD

中華人民共和國國家標準(GB)

Australian Standards (AS)

British Standards (BS)

Canadian Standards (CTC)

American Standards (DOT)

Japanese Standards (JIS)





# Components of Tube Trailer

**Frame**

**Cylinder**

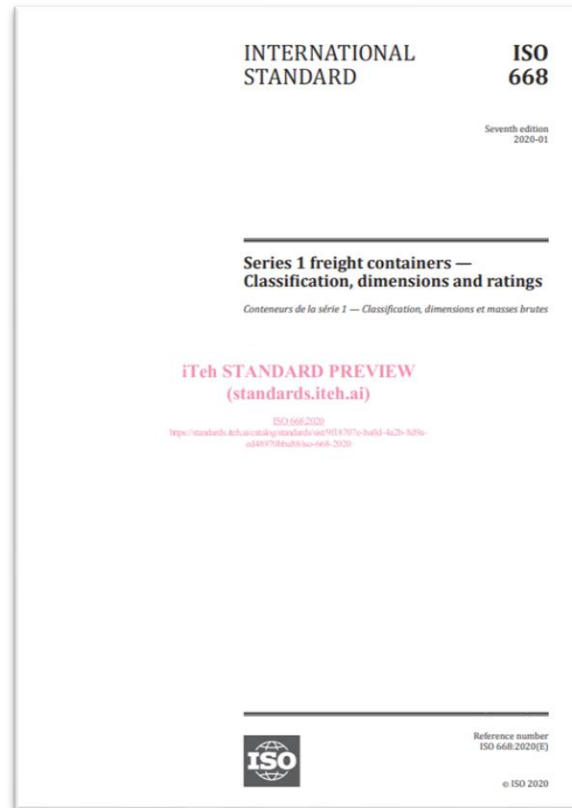


**Manifold**

**Valve**



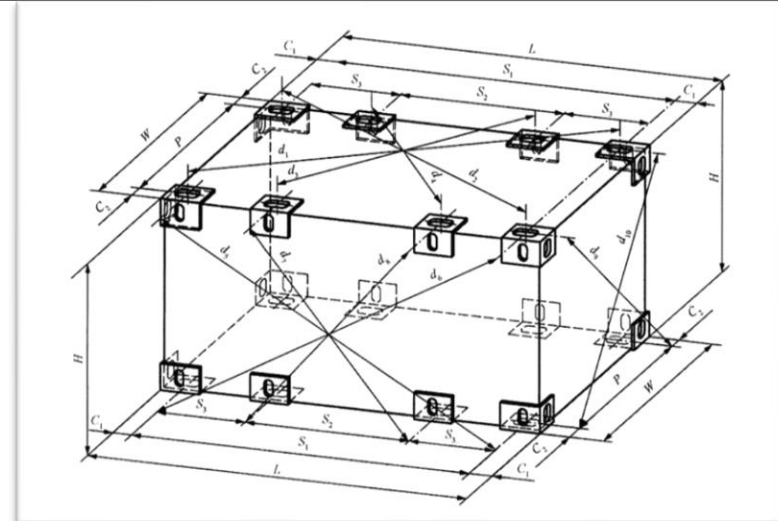
# Example - Frame



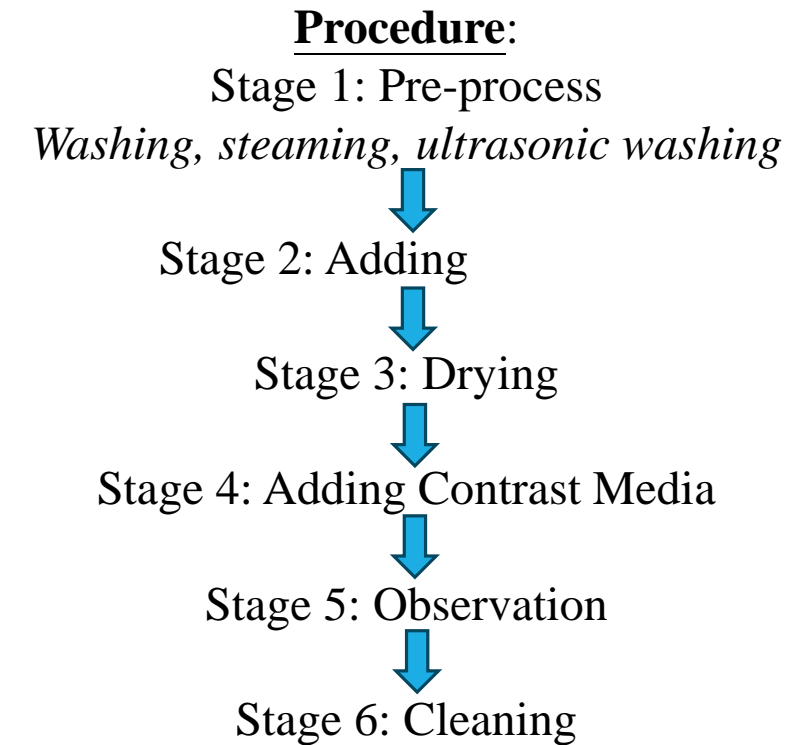
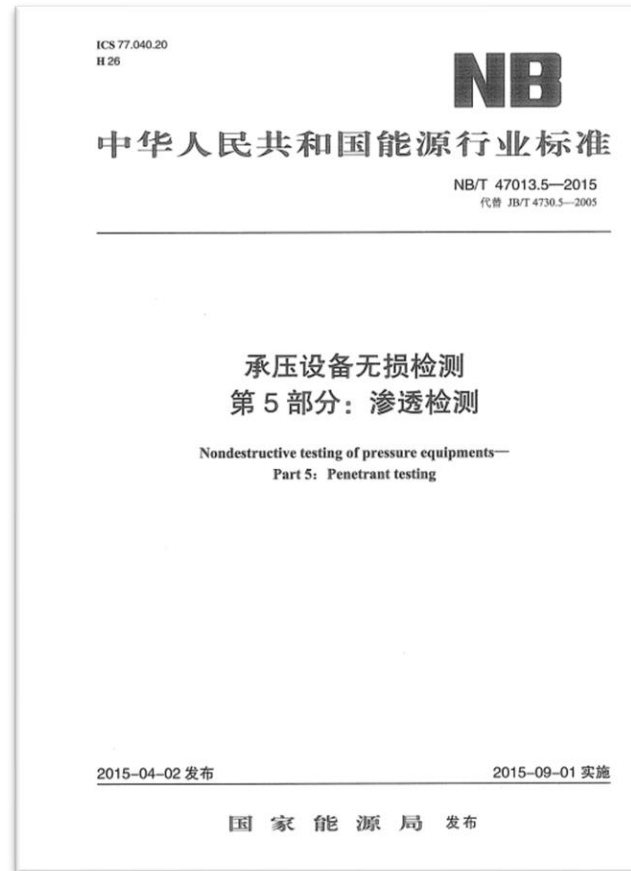
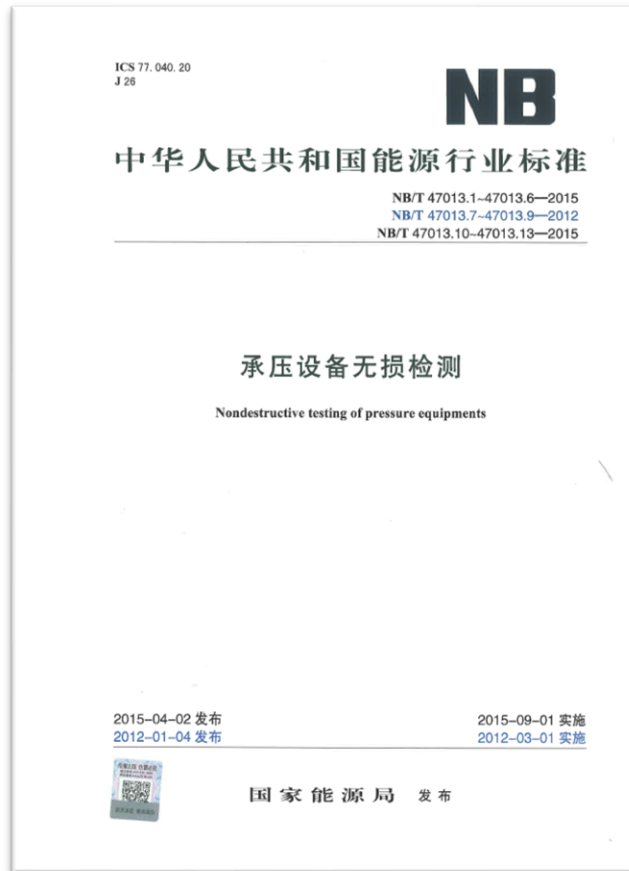
集装箱箱型	公称长度	
	m	ft
1EEE 1EE	13.7*	45*
1AAA 1AA 1A 1AX	12.2*	40*
1BBB 1BB 1B 1BX	9.1	30
1CCC 1CC 1C 1CX	6.1	20
1D 1DX	3	10

\* 某些国家对车辆的总长度和装载量有法律限制。

**Categorized according to the size of container**



# Example - Manifold Testing



# Example - Testing and Service Life

Testing	Requirement	Reference
Service Life	20 years	TSG 23 – 2021 特種設備安全技術規範
Periodic Test	3 years	TSG 23 – 2021 特種設備安全技術規範

## 3.8 设计使用年限

制造单位应当明确气瓶的设计使用年限并将其注明在气瓶的设计文件和气瓶标记上，气瓶的设计使用年限应当不小于表 3-5 的规定。如果制造单位确定的设计使用年限超出表 3-5 的规定，应当通过相应的型式试验、腐蚀试验进行验证，或者增加设计腐蚀裕量并且进行验证。

表 3-5 常用气瓶设计使用年限(注 3-5)

序号	气瓶品种	设计使用年限(年)
1	钢质无缝气瓶	30
2	钢质焊接气瓶(注 3-6)	20
3	铝合金无缝气瓶	
4	长管拖车、管束式集装箱用大容积钢质无缝气瓶	
5	溶解乙炔气瓶及吸附式天然气焊接钢瓶	
6	车用压缩天然气钢瓶	15
7	车用液化石油气钢瓶及车用液化二甲醚钢瓶	
8	钢质内胆玻璃纤维环向缠绕气瓶	
9	铝合金内胆纤维全缠绕气瓶	12
10	铝合金内胆纤维环向缠绕气瓶	
11	盛装腐蚀性气体或者在海洋等易腐蚀环境中使用的钢质无缝气瓶、钢质焊接气瓶	

注 3-5: 表 3-5 中未列入的气瓶品种按相应标准确定。

注 3-6: 不包括液化石油气钢瓶、液化二甲醚钢瓶。

表 9-1 气瓶定期检验周期

气瓶品种	介质、环境	检验周期(年)	
钢质无缝气瓶、钢质焊接气瓶(不含液化石油气钢瓶、液化二甲醚钢瓶)、铝合金无缝气瓶	腐蚀性气体、海水等腐蚀性环境	2	
	氮、六氟化硫、四氟甲烷及惰性气体	5	
	纯度大于或者等于 99.999%的高纯气体(气瓶内表面经防腐蚀处理且内表面粗糙度达到 $Ra0.4$ 以上)	剧毒	5
		其他	8
	混合气体	按混合气体中检验周期最短的气体特性确定(微量组分除外)	
	其他气体	3	
液化石油气钢瓶、液化二甲醚钢瓶	民用	4	
	车用	5	
车用压缩天然气钢瓶	压缩天然气、氢气、空气、氧气	3	
车用氢气气瓶			
气体储运用纤维缠绕气瓶			
呼吸器用复合气瓶			
低温绝热气瓶(含车用气瓶)	液氧、液氮、液氩、液化二氧化碳、液化氧化亚氮、液化天然气	3	
溶解乙炔气瓶	溶解乙炔	3	



# Common Errors

## 1. Insufficient Supporting Documents for Application

- ❑ Independent body inspection report
- ❑ The pressure receptacle drawings
- ❑ Written scheme of examination showing the procedure of periodic inspection



Item	Supporting Document	New Application			Re- application / Submission of Supplementary Information
		Model	Batch	Model and Batch	
(a)	Model and Design of Receptacle(s)	✓		✓	As specified in FSD's Reply Letter
(b)	Technical Details and Drawing(s)	✓		✓	
(c)	Design Specification and Calculation	✓		✓	
(d)	Gas(es) Details	✓		✓	
(e)	Valve Specification	✓		✓	
(f)	For filament-wound composite receptacle (if applicable):				
	(i) Life extension plan;	✓		✓	
	(ii) NDE scheme; and (iii) Maintenance manuals				
(g)	Product Catalogue (if applicable) of:				
	(i) Pressure Receptacle (ii) Valve	✓		✓	
(h)	Manufacturer's Certificate	✓	✓	✓	
(i)	Inspection Report issued by recognized independent inspection authority/body	✓	✓	✓	
(j)	Report of Physical Test	✓	✓	✓	
(k)	Report of Chemical Analysis of Material	✓	✓	✓	
(l)	Other Test Report(s)	✓	✓	✓	
(m)	Details of any heat treatment	✓	✓	✓	
(n)	Serial numbers of Pressure Receptacle(s)		✓	✓	
(o)	Previous FSD's approval letter(s) for respective model/design of respective Pressure Receptacle(s)		✓		
(p)	Other documents requested by FSD (if any)				
(q)	Copy of FSD's Reply Letter(s)				✓

# Common Errors

## 2. Inaccurate Calculation

- ❑ Cylinder Design
- ❑ Valve Design
- ❑ Thickness of Cylindrical Shell
- ❑ Wall Stress at Pressure Test



Item	Supporting Document	New Application			Re-application / Submission of Supplementary Information
		Model	Batch	Model and Batch	
(a)	Model and Design of Receptacle(s)	✓		✓	As specified in FSD's Reply Letter
(b)	Technical Details and Drawing(s)	✓		✓	
(c)	Design Specification and Calculation	✓		✓	
(d)	Gas(es) Details	✓		✓	
(e)	Valve Specification	✓		✓	
(f)	For filament-wound composite receptacle (if applicable): (i) Life extension plan; (ii) NDE scheme; and (iii) Maintenance manuals	✓		✓	
(g)	Product Catalogue (if applicable) of: (i) Pressure Receptacle (ii) Valve	✓		✓	
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(i)	Inspection Report issued by recognized independent inspection authority/body	✓	✓	✓	
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(k)	Report of Chemical Analysis of Material	✓	✓	✓	
(l)	Other Test Report(s)	✓	✓	✓	
(m)	Details of any heat treatment	✓	✓	✓	
(n)	Serial numbers of Pressure Receptacle(s)		✓	✓	
(o)	Previous FSD's approval letter(s) for respective model/design of respective Pressure Receptacle(s)		✓		
(p)	Other documents requested by FSD (if any)				
(q)	Copy of FSD's Reply Letter(s)				✓

# Common Errors

## 3. Inconsistent with Application Form

- ❑ Serial Number of the Pressure Receptacles
- ❑ Type of Gas
- ❑ Manufacture Date
- ❑ Working Pressure
- ❑ Testing Pressure



Item	Supporting Document	New Application			Re- application / Submission of Supplementary Information
		Model	Batch	Model and Batch	
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(c)	Design Specification and Calculation	✓		✓	
(d)	Gas(es) Details	✓		✓	
(e)	Valve Specification	✓		✓	
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(j)	Report of Physical Test	✓	✓	✓	
(k)	Report of Chemical Analysis of Material	✓	✓	✓	
(l)	Other Test Report(s)	✓	✓	✓	
(m)	Details of any heat treatment	✓	✓	✓	
(n)	Serial numbers of Pressure Receptacle(s)		✓	✓	
(o)	Previous FSD's approval letter(s) for respective model/design of respective Pressure Receptacle(s)		✓		
(p)	Other documents requested by FSD (if any)				
(q)	Copy of FSD's Reply Letter(s)				✓

# E-Application

- Visit <https://es.hkfsd.gov.hk/dg/en/>
- Pressure Receptacle
- E-Application Form for Pressure Receptacle Approval

The screenshot shows the Fire Services Department website. The top navigation bar includes the department logo and name. A main banner features a blue ribbon announcing 'The Amended Dangerous Goods Ordinance' effective from March 31, 2022. A search bar is located below the banner. A grid of service icons is visible, with 'Pressure Receptacle' highlighted in red. Below this, a breadcrumb trail reads: Home > Pressure Receptacle > Approval Application > Application Form for Pressure Receptacle Approval > Back. The main content area is titled 'Application Form for Pressure Receptacle Approval' and lists two options: 'Application Form for Pressure Receptacle Approval' and '(Electronic Submission) Application Form for Pressure Receptacle Approval'. A 'DANGEROUS GOODS' warning icon is present in the bottom right corner.





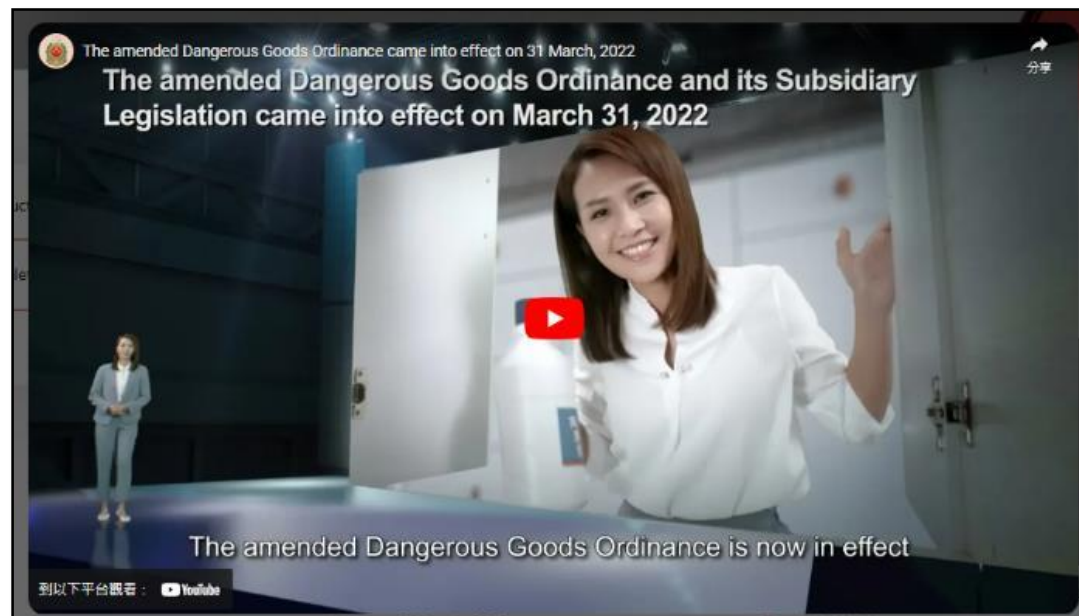
# More Information

❖ General Enquiry:

➔ [hkfsd\\_dg\\_enq@hkfsd.gov.hk](mailto:hkfsd_dg_enq@hkfsd.gov.hk)

❖ Code of Practice, “Application Guide”, Pamphlets, Videos:

➔ **DG Thematic Website** ([www.hkfsd.gov.hk/dg](http://www.hkfsd.gov.hk/dg))



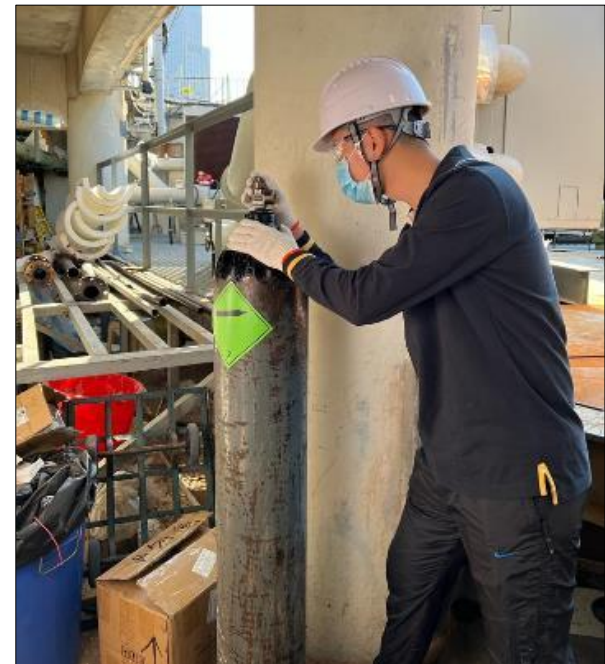
# More Information

❖ Manufacture, Storage and Use of DG

➔ **Dangerous Goods Control Division (2417 5757)**

❖ Conveyance of DG, Pressure Receptacles & Approved Persons

➔ **Dangerous Goods Enforcement Division (3850 8487)**



# Report Fire Hazards

❖ DG or IFA Complaints:

➔ **Fire Services Communication Centre**

**2723 8787 (24-hour)**





消防處

Fire Services Department

END

