



消防處

Fire Services Department

FSD Connects with the Relevant Industries of Dangerous Goods

14 March 2024

AGENDA

Introduction

Mr. CHAN Chi-fung

Topic 1: Packing, Marking and Labelling Requirements

Mr. POON Wai-lok

Topic 2: General principles to be observed when installing EV Charging Facilities in Petrol Filling Stations

Mr. TAM Tsz-kin

Topic 3: Points to Note for Installing Dangerous Goods Vehicle Tail Lift Safety Device

Mr. PANG Tsz-kan

Q & A Session

All Speakers



消防處

Fire Services Department

Packing, Marking and Labelling Requirement
危險品包裝、標記及標籤的規定

Senior Station Officer
POON Wai-lok

Amended Dangerous Goods Ordinance

The new regulatory system comprehensively sets out the

1. Licensing regime for the manufacture, conveyance, storage and use of Dangerous Goods ("DG")
2. New requirements for Packing, Marking and Labelling ("PML") of DG

Requirements for PML ≠ Licencing requirements

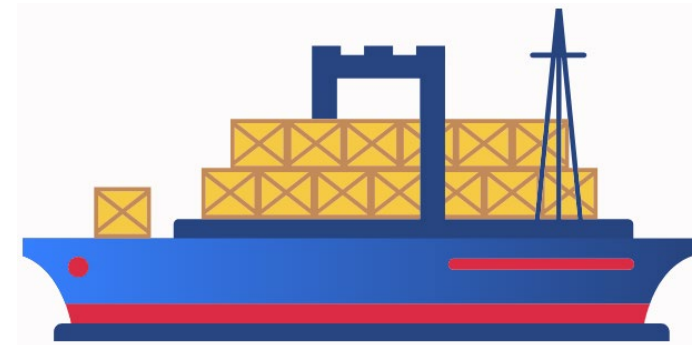
Aim of amendment:

Brought the local regulatory system of DG in line with the **international standards**



Why do we need PML?

1. To raise public awareness
2. To enhance safety in handling DG
3. To assist the trade in conducting risk management



Governing Regulations and CoP

(1) **Section 142** of Dangerous Goods (Control) Regulation (**Cap. 295G**)

=> Packing, Marking and Labelling (PML) of DG

(2) **Section 145** of **Cap. 295G**

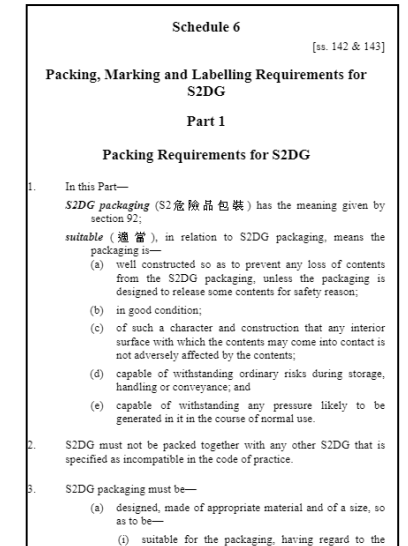
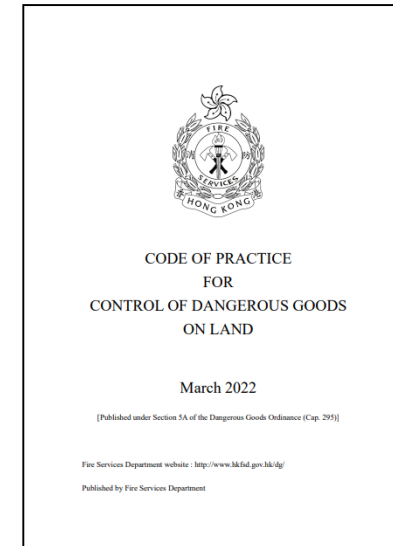
=> Special packing requirements for **Class 2 DG**

(A) Code of Practice for Control of Dangerous Goods on Land

Chapter 3

(B) Cap. 295G Dangerous Goods (Control) Regulation

Schedule 6



Offence and Penalty

A person who contravenes **s.142 (1)** commits an offence and is liable on conviction to

- ✘ Packing
- ✘ Marking
- ✘ Labelling



Penalty	
Fine	Level 6 (\$100,000)
Imprisonment	6 months



Common examples for non-compliance

	Examples	Offence
Packing	Unsuitable types of packaging	Non-compliance with s. 3 of Sch. 6 of Cap. 295G
	Inappropriate materials/over size limit	Non-compliance with s. 3 and 4 of Sch. 6 of Cap. 295G
	Mixed packing of incompatible DG	Non-compliance with s.2 of Sch. 6 of Cap. 295G
Marking	Lack of mark or insufficient mark	Non-compliance with s. 10 of Sch. 6 of Cap. 295G
	Incorrect or misleading mark	Non-compliance with s. 10 of Sch. 6 of Cap. 295G
	Unidentifiable or illegible mark	Non-compliance with s. 11 of Sch. 6 of Cap. 295G
Labelling	Lack of label or insufficient label	Non-compliance with s. 13, 15, 16, 18 and/or 19 of Sch. 6 of Cap. 295G
	Incorrect or misleading label	Non-compliance with s. 13, 15, 16, 18, 19, 21 and/or 23 of Sch. 6 of Cap. 295G
	Unidentifiable or illegible label	Non-compliance with ss. 14 and/or 20 of Sch. 6 of Cap. 295G

General Application & Exemption

	Packing	Marking	Labelling
S2DG*	✓	✓	✓
(1) DG in Consumer Packs	✗	✗	✗
(2) UN 3065 Alcoholic Beverages	✗	✗	✗
(3) Class 3A DG in approved tank	✗	✗	✗
(4) DG forming part of Machinery	✗	✗	✗
(5) DG in Limited Packs	✓	✗	✗



General Application & Exemption

◆ Remarks

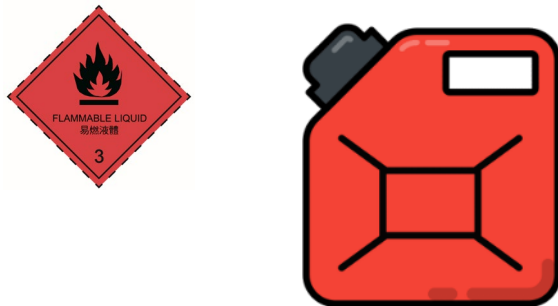
DG in **conformity** with **IMDG Code** = **Comply** PML Requirements

Except:

- a) Class 2 DG: special packing requirement (S.145 of Cap. 295G)**



- b) Class 3A DG:**



(1) Receptacle Approved

(2) Inspection and Testing of Receptacle



DG in Consumer Packs (DGCP)

What is consumer pack?

- Containers of DG with capacities not exceeding the Maximum Package Size (MPS)

(1)	(2)	(3)	(4)	(5)	(6)	(7)		(8)	(9)	(10)
UN No.	Proper Shipping Name / Packing Group (if any)	Class	Subsidiary Hazard	Specifications	SN (Appendix 4)	Packing (Appendix 5)		LQ	MPS	Compatibility 2.3.3
						BP	SP			
1791	HYPOCHLORITE SOLUTION / PG II	8	None	Mixtures of a Hypochlorite with an ammonium salt is prohibited.	274	BP001	SP10	1	1	CG8
1791	HYPOCHLORITE SOLUTION / PG III	8	None	Mixtures of a Hypochlorite with an ammonium salt is prohibited.	274	BP001		5	5	CG8

	Packing	Marking	Labelling
(1) DG in Consumer Packs	X	X	X



Applicable to uninhabited compartment and warehouse compartment only!



General Exempt Quantity

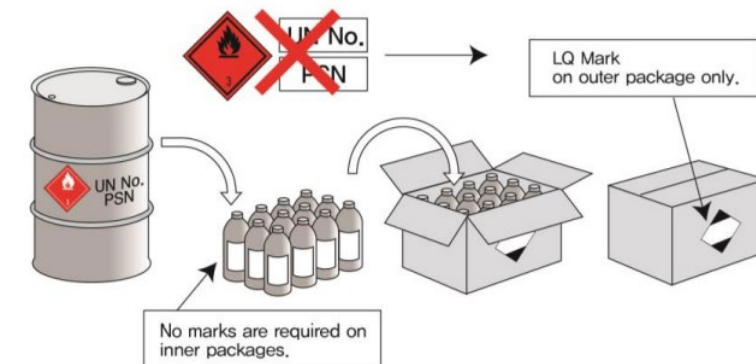
Limited Packs (LQ)

What is limited pack?

Capacity of the receptacle does not exceed the limited quantity (if any) specified

(1)	(2)	(3)	(4)	(5)	(6)	(7)		(8)	(9)	(10)
UN No.	Proper Shipping Name / Packing Group (if any)	Class	Subsidiary Hazard	Specifications	SN (Appendix 4)	Packing (Appendix 5)		LQ	MPS	Compatibility 2.3.3
						BP	SP			
1791	HYPOCHLORITE SOLUTION / PG II	8	None	Mixtures of a Hypochlorite with an ammonium salt is prohibited.	274	BP001	SP10	1	1	CG8
1791	HYPOCHLORITE SOLUTION / PG III	8	None	Mixtures of a Hypochlorite with an ammonium salt is prohibited.	274	BP001		5	5	CG8

	Packing	Marking	Labelling
DG in Limited Packs	✓	✗	✗



1. Packing

What is Packing?

Pursuant to **s. 92** of Cap. 295G, a S2DG packaging means any

1. receptacle;
2. tank; or
3. material

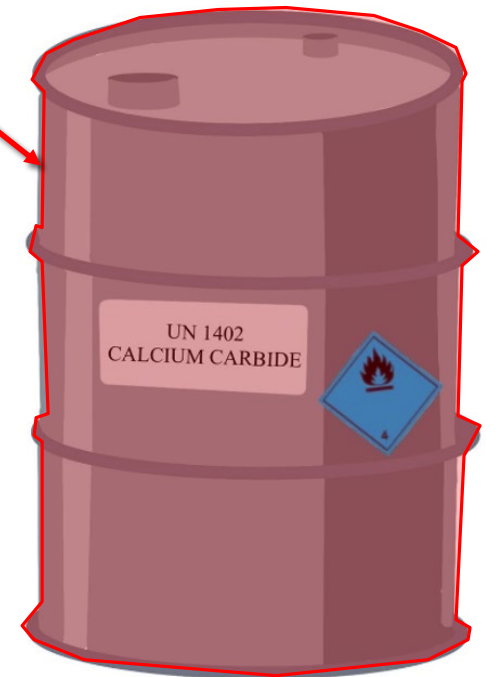
for **receiving**, **holding** or **enclosing** S2DG

Requirements on how the DG shall be packed

(Determined by the level of **hazard**)

1. Size; and
2. material

Packing



Packing Requirements

1. HK FSD Dangerous Goods Thematic Website



2. Look for “Packing”

Limited Quantity	None
Maximum Package Size	None
Specifications	With not less than 10% water, by mass 以質量計含水不少於10%
Supplementary Notes (SN)	None
Packing Basic Packing Instructions (BP) Special Packing Instruction (SP)	BP406 SP31, SP78
Compatibility	None

BP406 Basic Packing Instruction	
The following packagings are suitable provided that the packing requirements at 3.2.3.2 to 3.2.3.6, if applicable, are met:	
Combination packagings	
Inner packagings	Outer packagings^
The inner packagings shall be water-resistant.	Drums <ul style="list-style-type: none"> - Fibre - Plywood - Plastics Boxes <ul style="list-style-type: none"> - Natural wood - Plywood - Reconstituted wood - Fibreboard - Plastic Jerricans <ul style="list-style-type: none"> - Plastics
Single Packagings	
<ul style="list-style-type: none"> - Plastics, plywood, fibreboard drums with water-resistant inner bag, plastic film linings or water-resistant coatings. - Steel, aluminium, metal other than steel or aluminium, natural wood, plywood, reconstituted wood, fibreboard, plastics boxes with water-resistant inner bags, plastic film linings or water-resistant coatings. - Metal drums (steel, aluminium, metal, other than steel or aluminium), plastic drums, steel or aluminium jerricans, plastics jerricans. 	
Composite packagings	
<ul style="list-style-type: none"> - Plastics receptacles in steel, aluminium, fibre, plastics or plywood drums. - Plastics receptacles in steel, aluminium, wood, plywood, fibreboard or solid plastics boxes. 	
Additional requirements:	

Packing Requirements

Stipulated in s. 2, 3, 4 and 6 of Sch. 6 of Cap. 295G:

- ➔ 1. S2DG must not be packed together with any **incompatible** S2DG
2. S2DG packaging must be –
 - a) designed, made of **appropriate material** and of a **size**, so as to be –
 1. suitable for the packaging, capable of **withstanding ordinary risks** during storage or conveyance; and
 2. able to **protect** the S2DG **against** inadvertent or accidental **ignition or initiation** during storage or conveyance; and
 - b) maintained in **good condition** and free from any defect which may impair its performance
- ➔ 3. Packaging must be of a **size** specified in the code of practice
4. S2DG packaging must be filled with S2DG to the extent as to leave within the packaging air space or ullage that is not less than the minimum air space or ullage specified

2. Marking

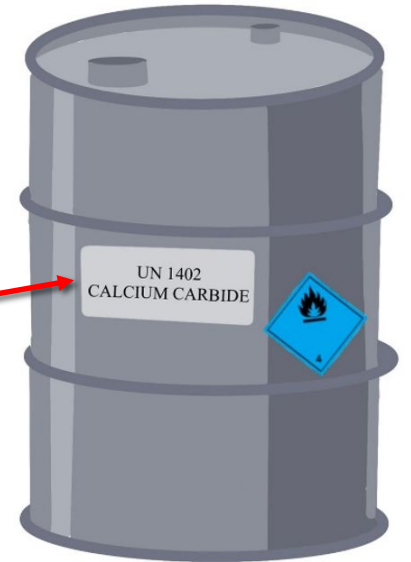
What is Marking?

Pursuant to **s. 10 -12 of Part 2 of Sch. 6 to Cap. 295G**

Outer surface of an **outermost S2DG packaging** must be legibly marked with

- (a) UN number/ HK number of each type of S2DG contained
- (b) Proper Shipping Name or true name of each type of S2DG contained in either English or Chinese,

Marking



Marking Requirements

(a) **UN number/ HK number:**

□ **Column 1** of the DG List

(b) **Proper Shipping Name or true name:**

□ **Column 2** of the DG List

Appendix 1 – DG List: Classes 2, 3, 4, 5, 6.1, 8 & 9 DG

What is **True Name**?

A recognised chemical or other name **commonly** used and understood by the trade and public

(1) UN No.	(2) Proper Shipping Name / Packing Group (if any)	(3) Class	(4) Subsidiary Hazard	(5) Specifications	(6) SN (Appendix 4)	(7) Packing (Appendix 5)		(8) LQ	(9) MPS	(10) Compatibility 2.3.3
						BP	SP			
1001	ACETYLENE, DISSOLVED	2.1	None		None	BP200		None	None	CR16, CR7
1002	AIR, COMPRESSED	2.2	None		None	BP200		0.12	None	
1003	AIR, REFRIGERATED LIQUID	2.2	5.1		None	BP203		None	None	CG19
1005	AMMONIA, ANHYDROUS	2.3	8		None	BP200		None	None	CG18, CR5, CR16, CR7
1006	ARGON, COMPRESSED	2.2	None		None	BP200		0.12	None	
1008	BORON TRIFLUORIDE	2.3	8		None	BP200		None	None	CR7
1009	BROMOTRIFLUOROMETHANE (also known as REFRIGERANT GAS R 13B1)	2.2	None		None	BP200		0.12	None	
1010	BUTADIENES, STABILIZED or BUTADIENES AND HYDROCARBON MIXTURE, STABILIZED	2.1	None	Containing more than 40% butadienes	None	BP200		None	None	CR7

Proper Shipping Name	UN number	True Name
HYPOCHLORITE SOLUTION	UN 1791	BLEACH
PAINT RELATED MATERIAL	UN 3066	THINNER
SODIUM HYDROXIDE SOLUTION	UN 1824	DRAIN CLEANER
SULPHURIC ACID	UN 1830	DRAIN CLEANER

Example

UN 1982

Proper Shipping Name or true name:

(1)	(2)	(3)	(4)	(5)	(6)	(7)		(8)	(9)	(10)
UN No.	Proper Shipping Name / Packing Group (if any)	Class	Subsidiary Hazard	Specifications	SN (Appendix 4)	Packing (Appendix 5)		LQ	MPS	Compatibility 2.3.3
						BP	SP			
1982	TETRAFLUOROMETHANE (also known as REFRIGERANT GAS R 14)	2.2	None		None	BP200		0.12	None	

What is the acceptable name to be displaced?

TETRAFLUOROMETHANE or **REFRIGERANT GAS R 14?**



Example

UN 2793

Proper Shipping Name or true name:

(1)	(2)	(3)	(4)	(5)	(6)	(7)		(8)	(9)	(10)
UN No.	Proper Shipping Name / Packing Group (if any)	Class	Subsidiary Hazard	Specifications	SN (Appendix 4)	Packing (Appendix 5)		LQ	MPS	Compatibility 2.3.3
						BP	SP			
2793	FERROUS METAL BORINGS, SHAVINGS, TURNINGS or CUTTINGS / PG III	4.2	None	In a form liable to self- heating	None	BP003	SP20 SP100	None	None	

What is the acceptable name to be displaced?

FERROUS METAL BORINGS, SHAVINGS, TURNINGS or CUTTINGS ?

FERROUS METAL BORINGS ?

FERROUS METAL SHAVINGS ?

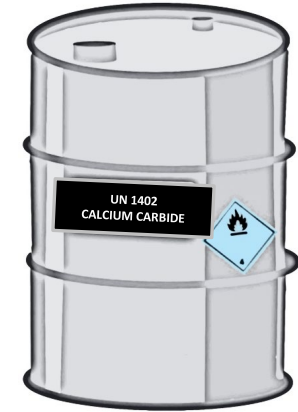
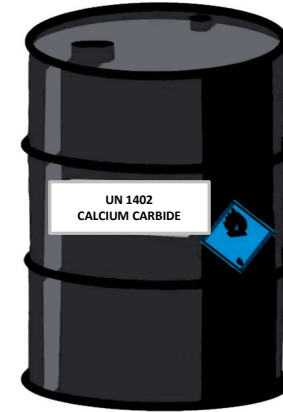
FERROUS METAL TURNING ?

FERROUS METAL CUTTING ?



Display Requirements

- (a) Readily visible and legible
- (b) Clearly identifiable
- (c) Display on a background of contrasting colour
- (d) Display at the **outer** surface of the **outermost** packaging
- (e) Specification of Marks



Type of Package	Size of the Package	Min. Height of the Letter / Character
Pressure receptacles / cylinders (water capacity)	> 60 L	12 mm
	≤ 60 L	6 mm
	≤ 5L	Appropriate Size
Packages other than pressure receptacles / cylinders (capacity / net mass)	> 30 L/kg	12 mm
	≤ 30 L/kg	6 mm
	≤ 5 L/kg	Appropriate Size









3. Labelling

What is Labelling?

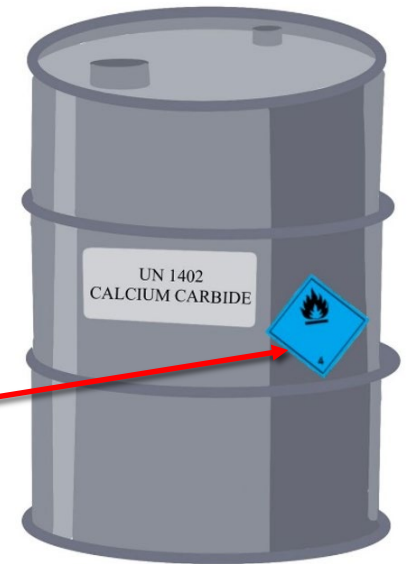
S. 13 of Part 3 of Sch. 6 to Cap. 295G

- Division 2 of Part 3 of the Sch. 6
- Division 3 of Part 3 of the Sch. 6
- 3.4.3.4 od CoP

3.4.3.4 Specimen Labels

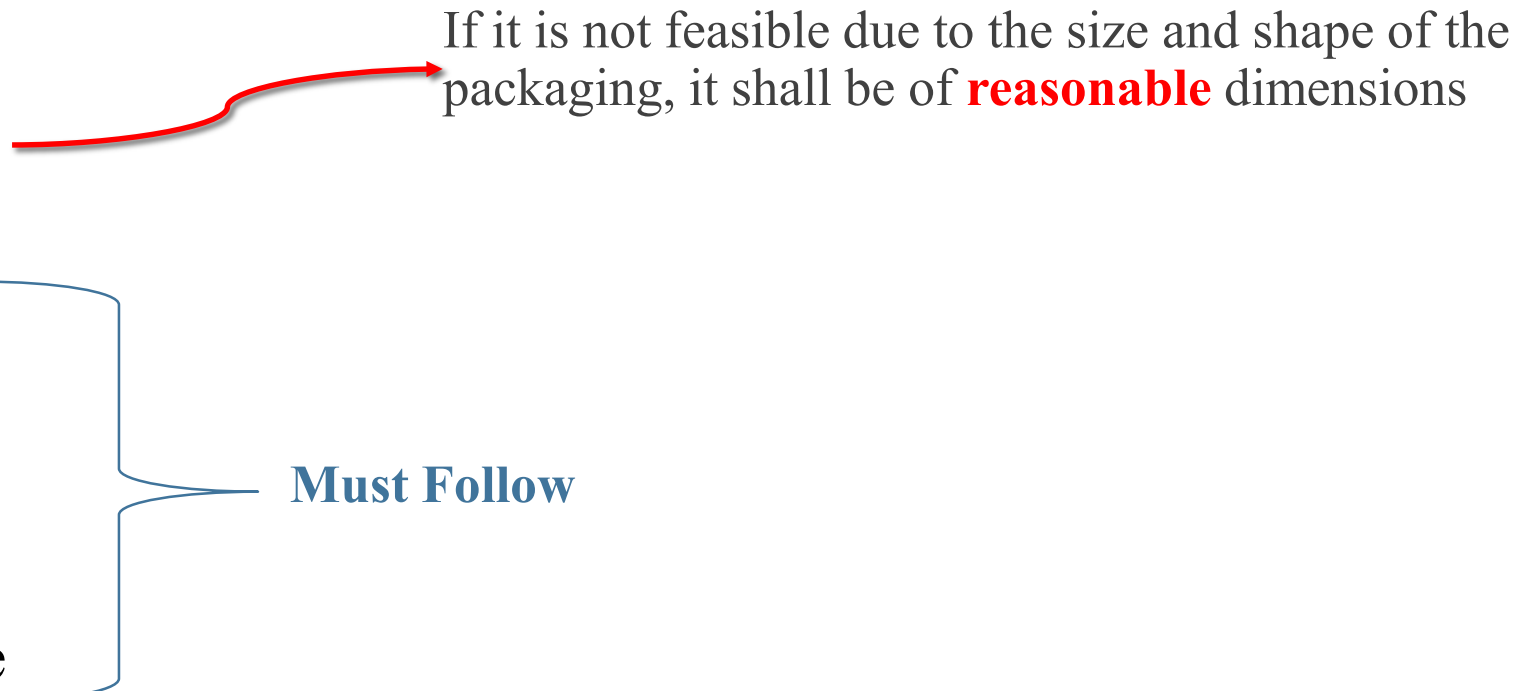
Class / Subsidiary Hazard	Labels in Schedule 6 of Cap. 295G	Specimen labels		
		with Chinese description	with English description	with English and Chinese description
2.1 Flammable gases				
				

Labelling



Specifications of Label

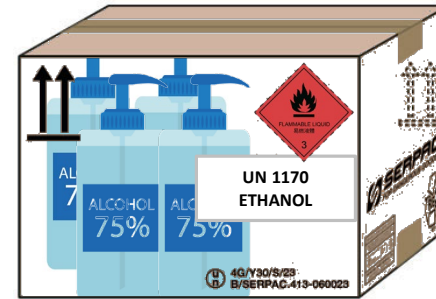
Specifications of Marks

- (a) Square-shaped
 - (b) Minimum length: 100 mm
 - (c) Form of label
 - Colour
 - Symbol
 - Numbers
 - General format
 - In appropriate scale
- If it is not feasible due to the size and shape of the packaging, it shall be of **reasonable** dimensions
- Must Follow**
- 

Frequently Asked Questions

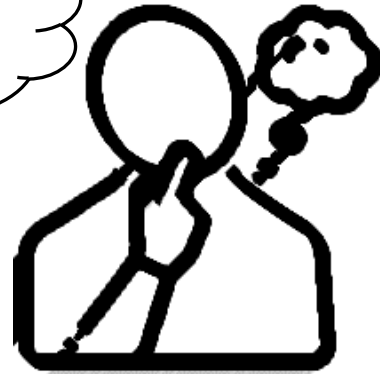
Frequently Asked Questions

Is every bottle required to be marked and labelled?



Thought bubble: DG in Limited Packs?

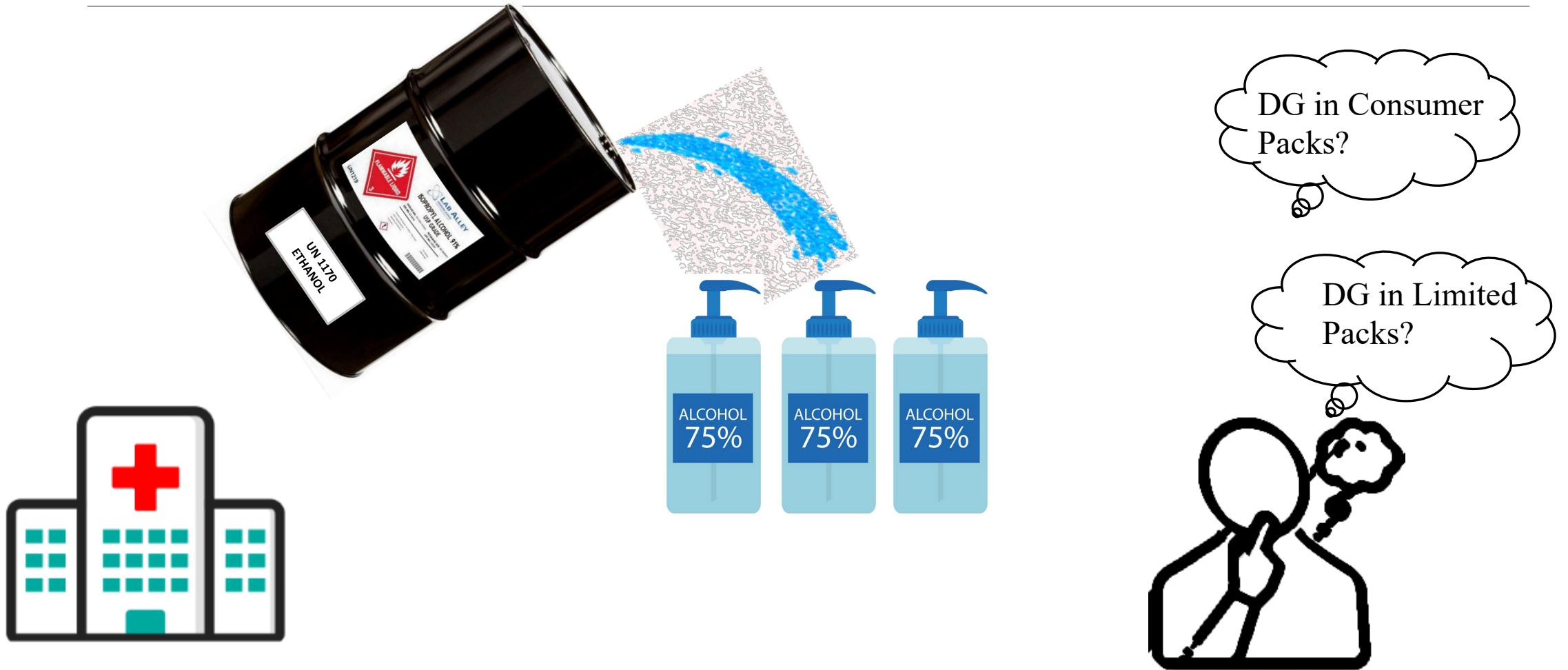
Thought bubble: DG in Consumer Packs?



UN 1170	ETHANOL / PG II	ETHANOL / PG III
Limited Quantity	1 L	5 L
Maximum Package Size	1 L	1 L

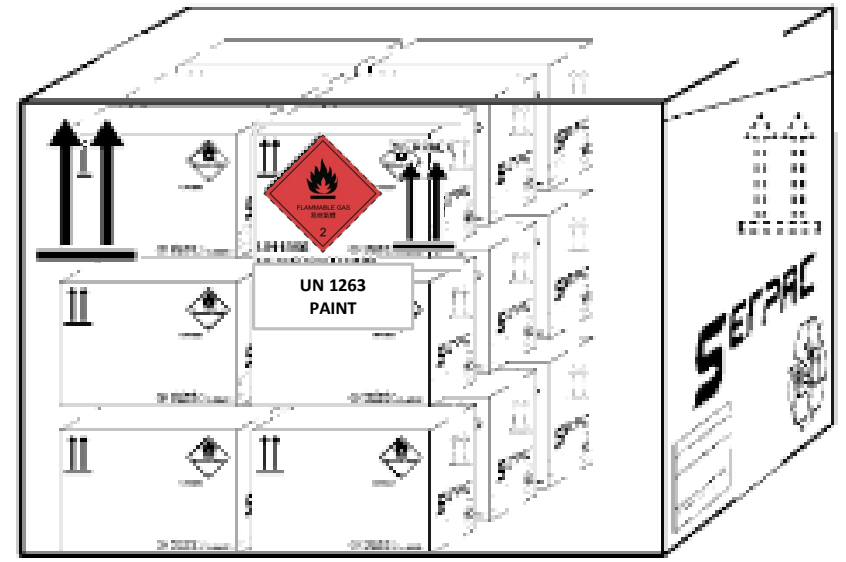
Frequently Asked Questions

Is every bottle required to be marked and labelled?



Frequently Asked Questions

Which one is considered as outermost packaging?



Frequently Asked Questions

How to define outermost packaging?

Depend on the **condition** when the DG are being **stored** or **conveyed**



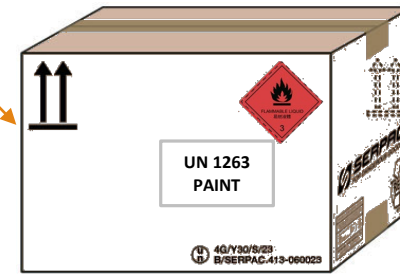
Single Packaging



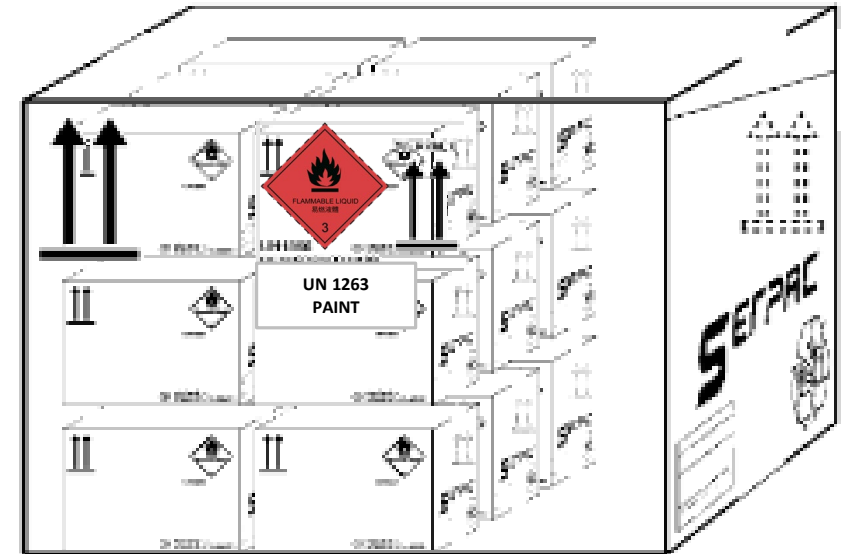
Combination Packaging



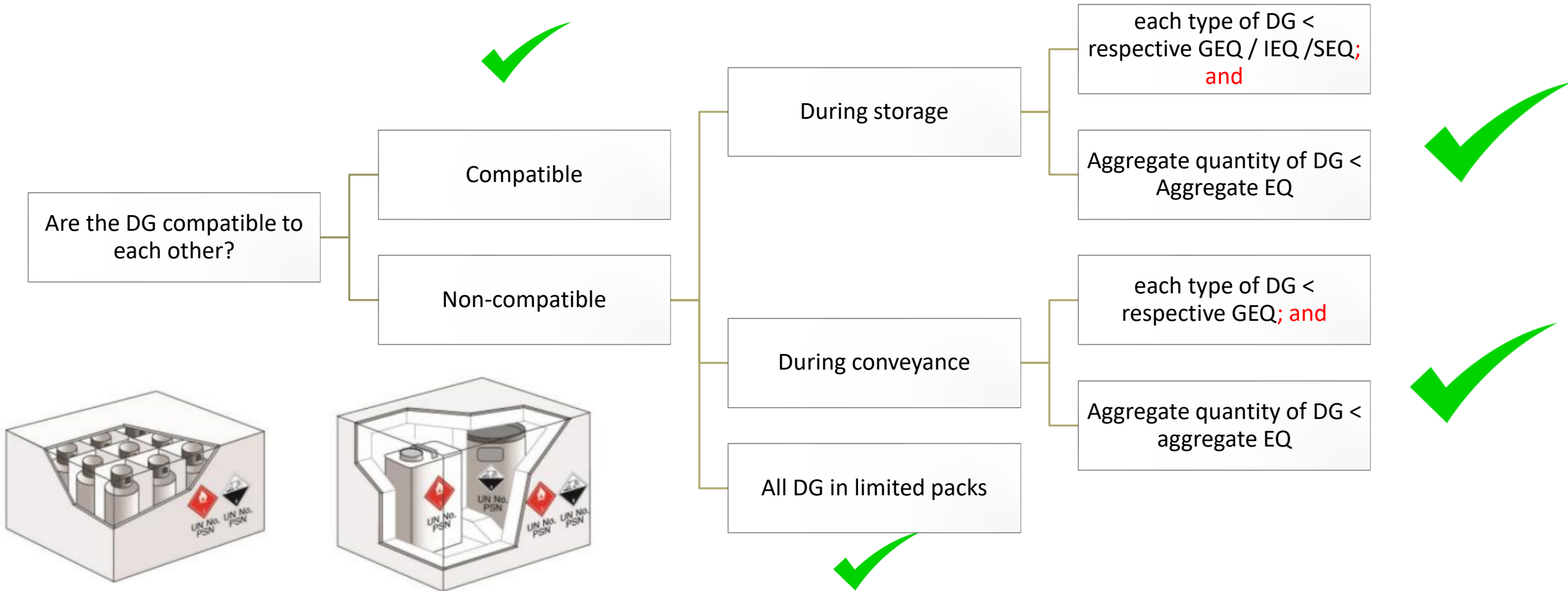
Inner Packaging



Outer Packaging



Mixed Packing of multiple types of DG





消防處

Fire Services Department

General principles to be observed when installing EV Charging Facilities in Petrol Filling Stations

在加油站安裝電動車充電設施時需要遵守的一般規則

**Senior Station Officer
TAM Tsz-kin**

Background

香港 電路

**香港在2035年或以前
停止新登記燃油私家車，
包括各式混合動力車**



加油站轉充電站的構思

4.4.8 由於新能源車輛尤以電動車的近年快速發展，預見燃油車加油的需求將下調。在香港停止銷售新燃油私家車後，加油的需求更會縮減。因此，我們會研究在中長線逐步把現有的加油站及液化石油氣加氣站，改建為快速充電站的需要及可行性，包括探討將一些面積較大的加油站及加氣站轉型為大型充電站，供更多不同類型的車輛同時充電。

2021年3月

《電動車普及化路線圖》摘要

願景——零碳排放 · 清新空氣 · 智慧城市

環保減碳 · 協同創新

多管齊下，共同創造有利電動車普及化的環境

專責小組
審視全球減碳新技術的高端發展，包括新能源車輛及高能效材料技術

低碳基金
\$2億
低碳綠色科研基金
資助研發環保技術，包括電動車輛技術

Green Tech Fund 低碳綠色

智慧城市
善用物聯網、大數據、人工智能等技術領域的發展，繼續推動應用自動駕駛及智慧出行技術

區域合作
善用大灣區電動車技術發展帶來的機遇

電動私家車

**2035年或以前停止
新登記燃油私家車，
包括混合動力車**

務務優惠
「高—換—計」計劃下電動私家車的首次登記稅寬減至\$287,500
「低—換—計」計劃下電動私家車的首次登記稅寬減及「換—計」計劃至2024年3月

政府承諾
政府新採購及到期更換的中小型私家車須以電動車為標準
公務機構
推動公務機構參考政府用車的環保採購新政策

電動商用車

專項試驗 積極推動試驗各種電動公共交通及商用車，力求約在2025年制定更具體推行的方向及時間表

層層巴士
\$1.8億
電動層層巴士試驗計劃
陸續投入服務測試運作表現

公共小巴
\$8,000萬
電動公共小型巴士試驗計劃
預計2023年開始試驗

貨車
在新能源運輸基金下試驗供港的貨車型號

雙層巴士
在新能源運輸基金下試驗雙層巴士及其他類型的巴士

的士
與營運商探討試驗合適的運作模式與車輛型號

其他車輛
擴大新能源運輸基金的資助範圍以涵蓋電車及非道路車輛

充電網絡

私人充電設施
≥180,000個

公共交通工具
要求新發展區的公共運輸交匯處提供公共交通工具的指定充電位

推動市場化
約於2025年開始在政府停車場收取充電費
逐步將充電服務市場化，推動其長遠可持續發展

鼓勵及資助措施：預計私人商業或住宅停車位配備充電基礎設施

研究要求：未來新建私人樓宇停車位必須配備充電基礎設施

快速充電設施
物色地監建立覆蓋全港的快速充電網絡，包括研究把加油站及加氣站轉型至充電站的可行性

公共充電設施
≥5,000個 (計劃往後再倍增)

維修服務

大專培訓
與大專院校緊密聯繫，以提供合資的維修、再培訓及教育機會

業界合作
加強與業界溝通，推動電動車供應商與本地院校合作，以推出更多課程

電池回收

環保責任
爭取在未來幾年立法就電動車退役電池推行生產者責任計劃

綠色科研
把推廣電動車電池二次應用列入**低碳綠色科研基金**的優先研究主題

目標



車輛零排放

配合香港2050年前碳中和的目標

五年一檢 與時並進，計劃將約每五年檢視當中的策略及目標

Express of Interest (EOI)

政府總部
環境及生態局

香港添馬添美道 2 號
政府總部東翼 15 至 16 樓



ENVIRONMENT AND ECOLOGY BUREAU
GOVERNMENT SECRETARIAT

15/F & 16/F, East Wing,
Central Government Offices,
2 Tim Mei Avenue, Tamar,
Hong Kong.



24 November 2023

Dear Sir,

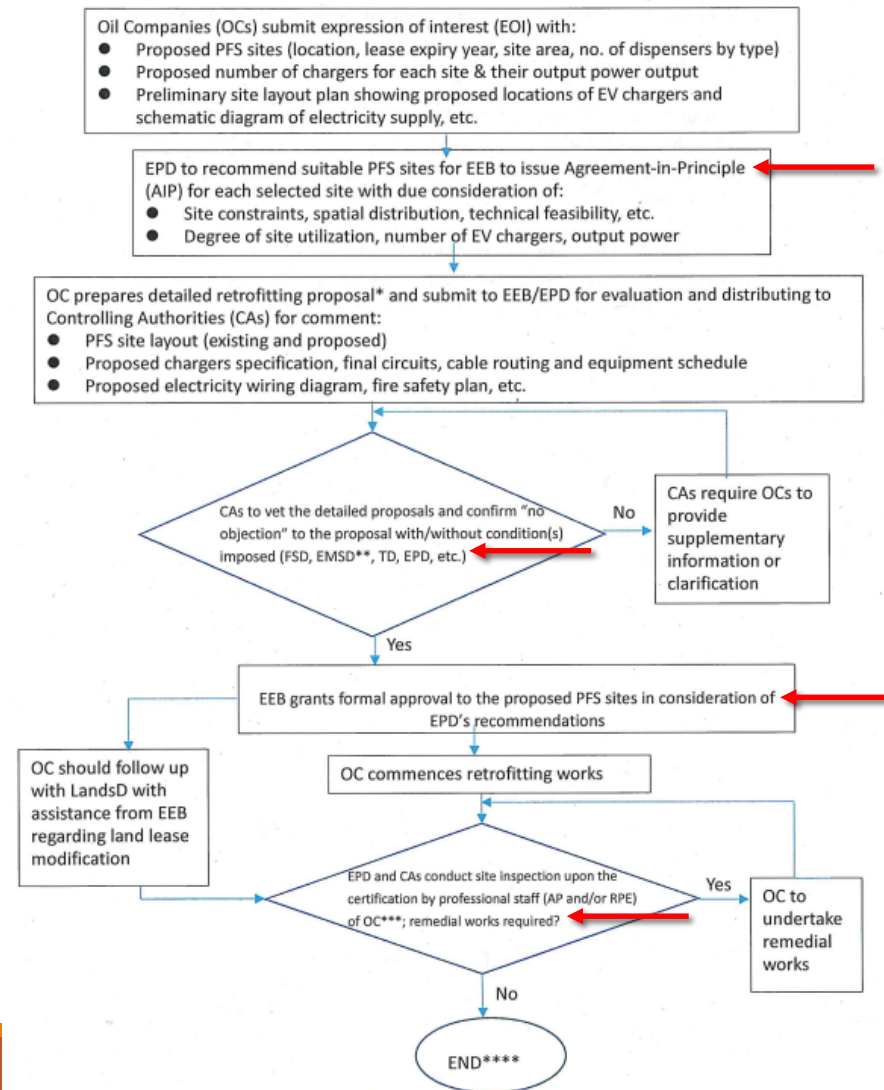
Retrofitting of Electric Vehicles Charging Facilities at Existing Petrol Filling Stations

Invitation to Express Interest

The Hong Kong SAR Government has made notable progress in promoting the popularisation of electric vehicles (EVs) in recent years. A multi-pronged approach is being adopted to introduce a more diversified charging infrastructure to cater for the needs of different types of EVs. To further promote the wider uptake of EVs including electric private vehicles and electric commercial vehicles (e-CVs), the establishment of a comprehensive public quick charging network is of the essence. The 2023 Policy Address announced that the land lease conditions for existing petrol filling stations (PFSs) would be refined with a view to offering incentives to retrofit EV charging facilities in the stations. Details of this new initiative are set out in the ensuing paragraphs.

Appendix B

Flowchart for Retrofitting of EV Chargers at Existing PFS Sites



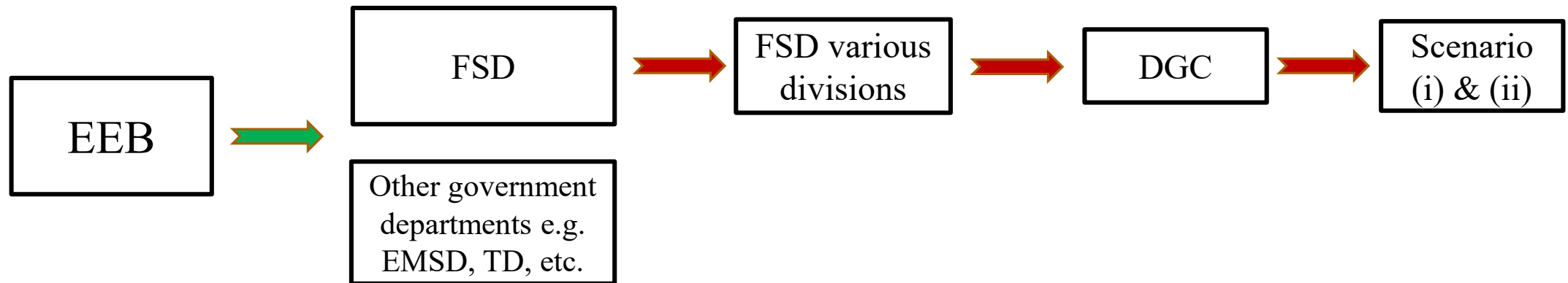
Installation of Electric Vehicle (EV) chargers at PFS

(i) Conversion of existing PFS into charging station

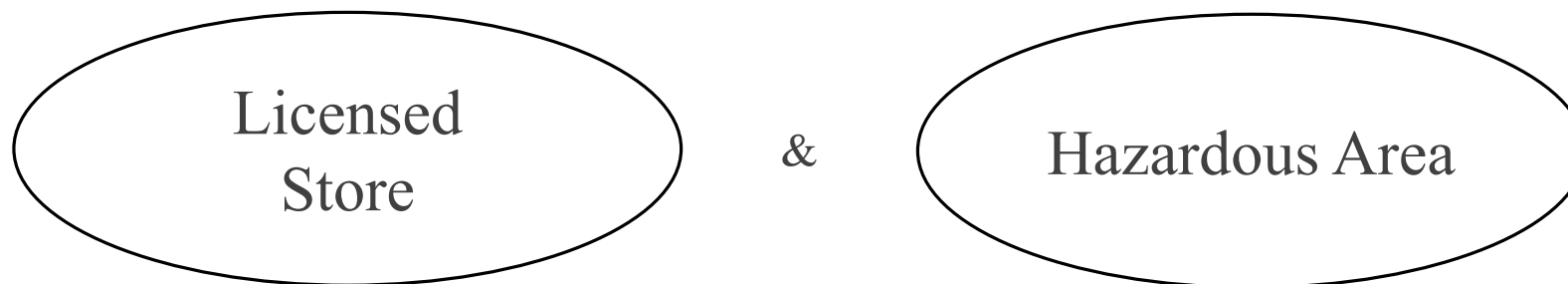
→ *Cancellation of licence and decommissioning of tank (s.113 of Cap. 295G)*

(ii) PFS with EV charging facilities (New Application and Addition of EV)

→ *Any changes in approved DG plans*



Definition



Under Cap. 295G

Licensed store (持牌貯存所) means a premises the use of which for the storage of S2DG is permitted under a store and use licence, and includes any fixed piping, fittings or equipment designed and constructed for the distribution of the S2DG

持牌貯存所 (licensed store) 指根據貯存暨使用牌照獲准使用作 貯存 S2 危險品的處所，並包括為輸送該 S2 危險品而設計和建造的固定管道、裝置或設備

(For PFS, licensed store includes the storage tank, dispenser, dispensing hose and nozzle (to its maximum reach), fill point, vent pipe and oil/water separator. 就油站而言，持牌貯存所包括地底貯槽、加油機、加油機油喉和油槍、貯槽的入油點、溢氣管和油水分離器。)

Hazardous area (危險區), in relation to a licensed factory, licensed store or Class 3A premises, means the area of, and adjacent to, the factory, store or premises that is marked as “hazardous area” on the latest plan of the factory, store or premises approved by the Director

危險區 (hazardous area) 就持牌工廠、持牌貯存所或第3A 類處所而言，指在獲消防處處長批准的該工廠、貯存所或處所的最新圖則上，該工廠、貯存所或處所的区域以及鄰近該工廠、貯存所或處所的区域標記為“危險區”者

Hazardous Area of PFS



A Guide to Application for Dangerous Goods Licence and Approval

(for Class 2 to Class 9A Dangerous Goods
Excluding Liquefied Petroleum Gas and Other Gases under
Gas Safety Ordinance, Cap. 51, Laws of Hong Kong)

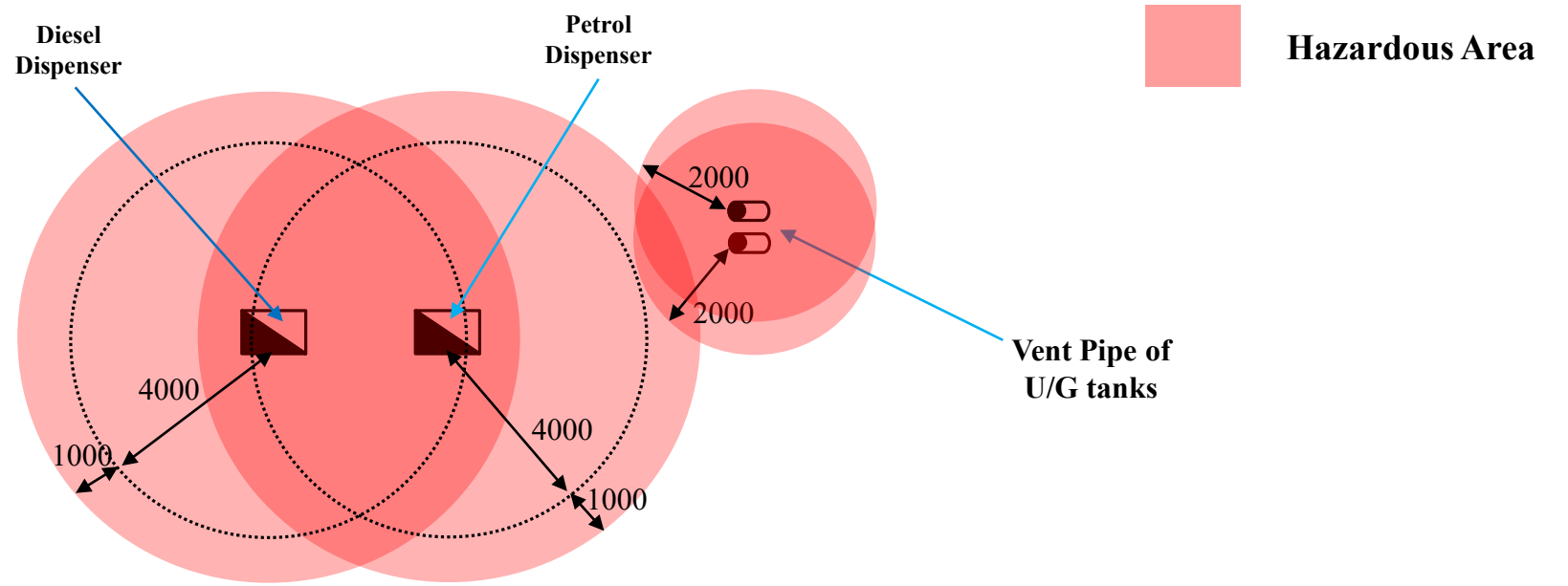
Fire Services Department
02/2023

***A Guide to Application for Dangerous Goods Licence and
Approval (Section 2.2.7 Hazardous Area)***

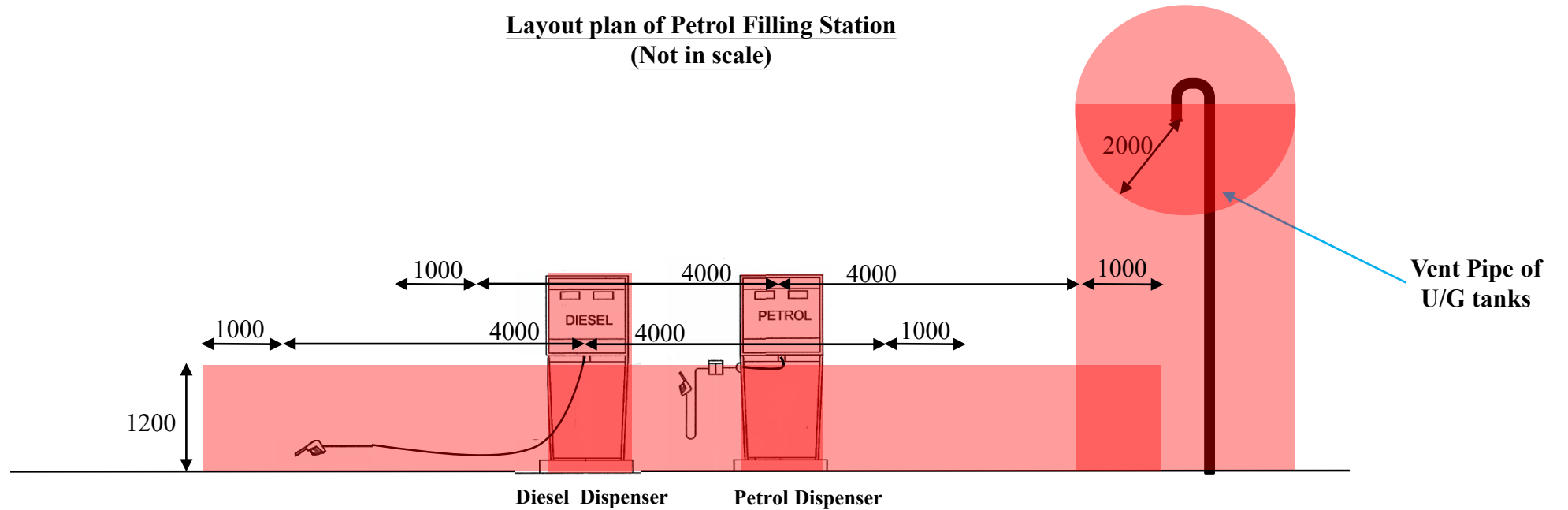
(URL Link: <https://es.hkfsd.gov.hk/dg/en/>)

(c) Petrol Filling Station

- Underground storage tank
 - Every part of a tank
 - Within tank access chambers which do not have tank filling points
 - Within any access chamber or pit in which there are tanker delivery hose connection point
- Filling point
 - 1m radius from tank filling point (aboveground)
 - 1m radius from edge of the chamber if filling point is below ground
 - 4m radius of aboveground offset fill connection
- Vent pipe
 - 2m radius around tank venting point extending to ground
- Road tanker unloading
 - 1m radius along the delivery hose route from tanker connection point to the tank filling point
 - 4m radius of a tanker connection point
 - 1m radius around the tanker connection point including vapour return hose connections extending to ground
 - 1m radius around vapour return hose connection point
- Dispenser
 - Every part of a dispenser
 - Area covered by a hose length plus 1m extending to 1.2m from ground
- Oil / water separator
 - Within a separator
 - Within the access chamber of a separator
 - 2m radius from the edge on a separator
 - 1m radius around a venting point of a separator



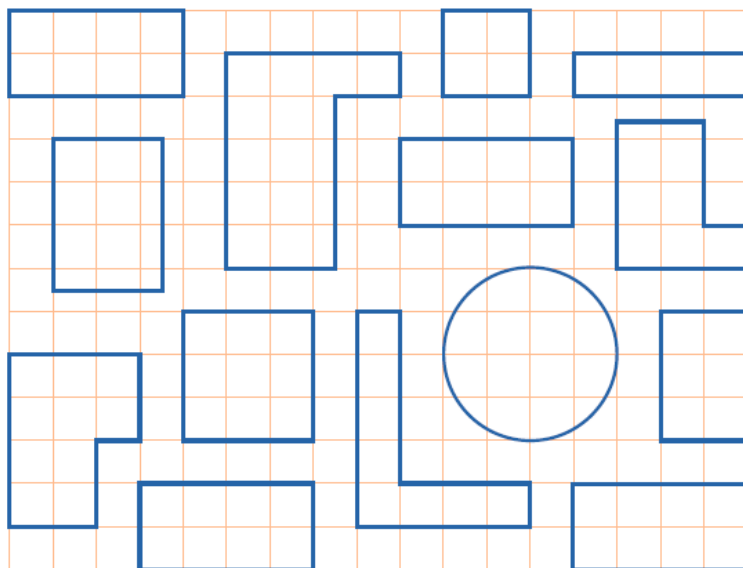
Layout plan of Petrol Filling Station
(Not in scale)



Elevation plan of Petrol Filling Station
(Not in scale)

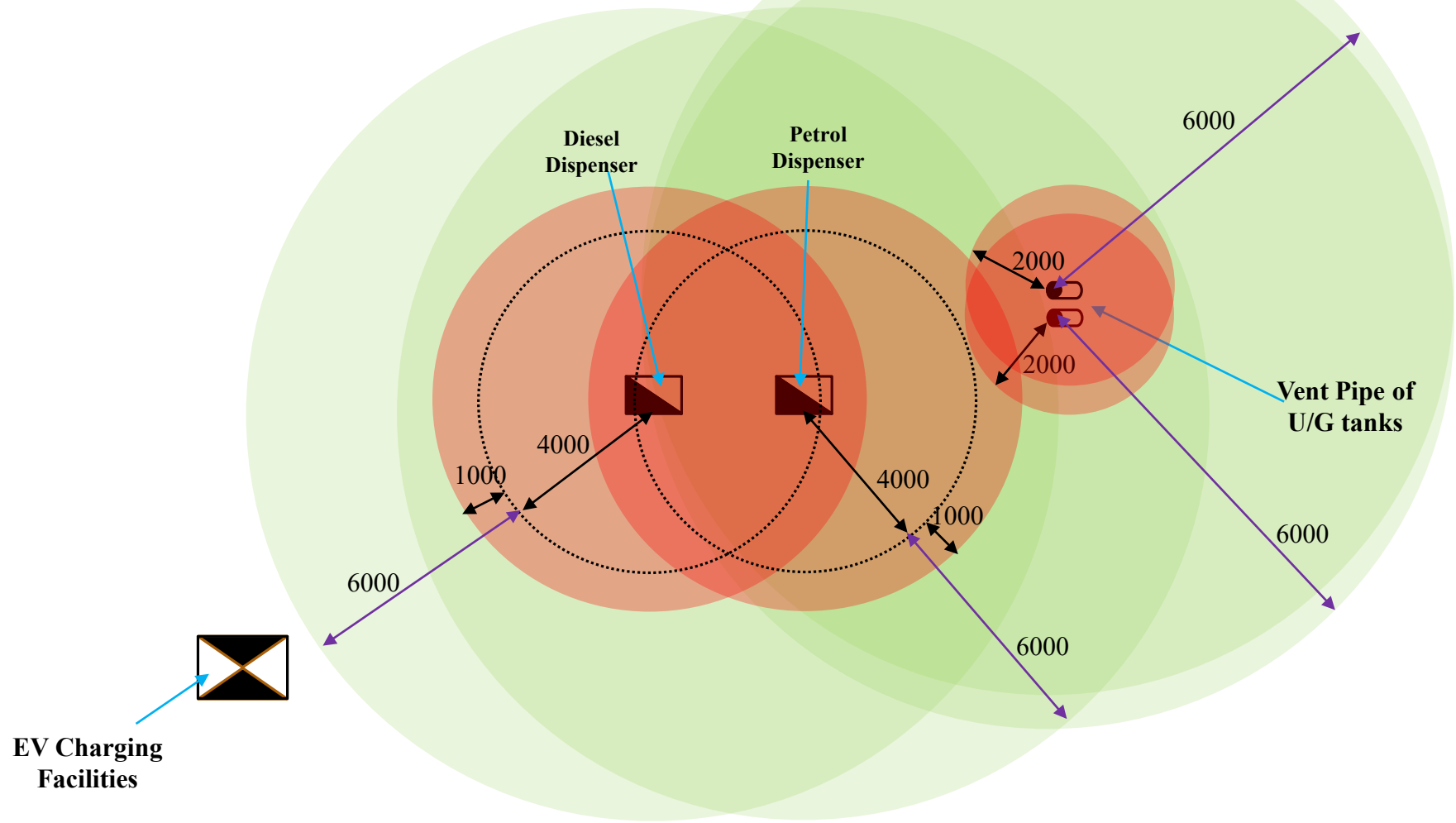
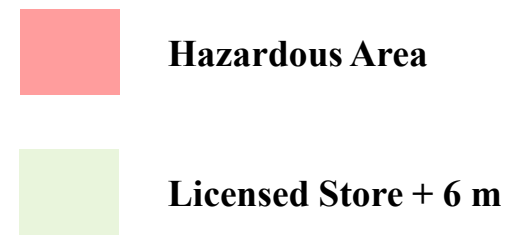
What shall we observe/adhere to?

- Ch.12 of Hong Kong Planning Standards and Guidelines
- FSD Circular Letter No. 4/2020
- General Principles



3.9 Special Requirements Relevant to EV Charging Stations

- 3.9.1 EV charging facilities should not be co-located with the vehicular fuel filling facilities in the same PFS in view of the cumulative risks arising from the electrical installation and fuelling facilities.
- 3.9.2 For the siting of an EV charging station, the applicant should consult the Environmental Protection Department (EPD) who will liaise with the relevant controlling authorities (e.g. TD) in this aspect.
- 3.9.3 The charging points should be located to enhance internal circulation and avoid vehicle queue formation onto the adjacent roads.
- 3.9.4 A minimum of two waiting spaces should be provided in each EV charging station to avoid the awaiting vehicles to queue on public roads. Signage(s)/indicator(s) should be erected at the prominent location of the ingress to display the availability of EV charger(s).
- 3.9.5 EV charging facilities should be separated by at least 6 metres from any licensed store under the Dangerous Goods Ordinance (Cap. 295). Depending on the design and modes of charging, additional separation may be imposed by the controlling authority of the EV charging facilities.
- 3.9.6 EPD will take lead to liaise with the controlling authorities about environmental, electrical, traffic and fire safety (including means of access/escape and mitigation of “off-site”/“on-site” risks) requirements, as well as planning, construction, installation, operation and maintenance of PFS solely used for EV charging station. For both provision of new EV charging station and conversion of existing PFS to EV charging station; or any exceptional circumstances, the applicant of EV charging station should consult the EPD who will liaise with the relevant authorities in these aspects.



Layout plan of Petrol Filling Station
(Not in scale)

消防處
消防安全總區
香港九龍尖沙咀東部康莊道一號
消防總部大廈七樓



FIRE SERVICES DEPARTMENT
FIRE SAFETY COMMAND
7/F, Fire Services Headquarters Building,
No. 1 Hong Chong Road, Tsim Sha Tsui East, Kowloon,
Hong Kong.

- 2 -

-Fireman's emergency switch
-Fire Extinguishers

本處檔號 OUR REF.: (48) in FSD FSC GR 13-314/07 IV
來函檔號 YOUR REF.:
圖文傳真 FAX: 852-2312 0376
電話 TEL NO.: 852-2170 9595
電子郵件 E-MAIL: fshq@hkfsd.gov.hk

31st July 2020

To: Recipients of FSD Circular Letters

Dear Sirs/Madams,

FSD Circular Letter No. 4/2020
Additional Fire Safety Requirements for
Car Parking Facilities installed with Electric Vehicle Charging Facilities

This Circular Letter serves to announce the additional fire safety requirements for car parking facilities, installed with electric vehicle (EV) charging facilities to the Code of Practice for Minimum Fire Service Installations and Equipment, 2012 (FSI Code).

2. Due to the increasing trend on popularity of EVs and related fire incidents worldwide, FSD has taken the initiative to conduct a study on the potential fire hazard in connection with EVs, especially during battery charging of EVs. Having considered that the car parking facilities, where EV charging facilities are installed, may have inherent risks to both the general public and firefighters, additional fire safety requirements for those car parking facilities installed with EV charging facilities have to be imposed as follows:

- (a) Fire detection system with heat or multi-sensor detecting type, shall be provided as follows (except those provided with sprinkler system):
 - i. For those with a total floor area not exceeding 230m², the entire car parking facilities shall be covered by the fire detection system.
 - ii. For those with a total floor area exceeding 230m², the areas installed with EV charging facilities shall be covered by the fire detection system.
 - iii. The fire detection system shall be installed in accordance with British Standard 5839: Part 1 or other standards acceptable to the Director of Fire Services and linked to the fire alarm system.

iv. A direct line connection to the Fire Services Communications Centre is not required if the car parking facilities are situated in domestic buildings where the provision of direct line connection is not mandatorily required.


- (b) A dry powder or carbon dioxide type fire extinguisher shall be provided at each hose reel point.
- (c) Fireman's emergency switch shall be provided at vehicle entrance(s), fire control centre or other locations as considered acceptable by the Director of Fire Services. Details of the switch are provided in the Appendix.

3. The requirements as stipulated in paragraph 2 above shall not be applicable to the car parking facility of a single-family domestic building up to and including three storeys in height, except a car parking facility situated in basement.

4. The additional requirements will take effect from 1 September 2020 for all initial building plan submissions. Building plans submitted before 1 September 2020 and all existing buildings planned with the EV charging facilities are advised to enhance the fire safety provisions as stated in the foregoing paragraph for the sake of fire safety. For those recent submissions, you are encouraged to voluntarily incorporate the additional requirements for EV charging facilities in your amendment submissions.

5. For enquiries, please contact our Senior Divisional Officer (New Projects) at 3971 4600.

Yours faithfully,


(CHUI Man-leung)
for Director of Fire Services

Encl.

General Principles to be observed when installing EV charging facilities at PFS:

- (i) EV charging facilities should be separated by at least 6 metres from any licensed store under the Dangerous Goods Ordinance (Cap. 295). Depending on the design and modes of charging, additional separation may be imposed by the controlling authority of the EV charging facilities;
- (ii) No EV charging facilities including the associated electric cables nor any vehicle connected to the EV charging facilities shall be located inside, above or beneath the hazardous area as defined under the Cap. 295 of the Petrol Filling Station;
- (iii) No petrol or diesel shall flow in the close proximity of the EV charging area or EV charging facilities;
- (iv) All conditions of the store and use licence(s) should be complied with by the licensee at all times; and
- (v) Fireman's emergency switches for EV charging facilities shall be provided at vehicle entrance(s) or fire control centre to cut off the electric power supply of all EV charging facilities within the site.



消防處

Fire Services Department

Points to Note for Installing Dangerous Goods Vehicle Tail Lift Safety Device

安裝危險品車輛尾板安全系統時的注意事項

**Senior Station Officer
PANG Tsz-kan**

Background



Background

貨車尾板操作要小心 六年奪三命

撰文：洪琦琦 梁嘉瑜

出版：2016-06-22 21:00 更新：2016-06-23 12:35



六年內與貨車尾板相關的意外事件

2010年10月，曾姓貨車司機在青衣永基路工作期間，一邊操控尾板升降，一邊伸頭入車斗內視察，頭顱被尾板夾着，幸跟車工人醒目，及時將尾板按停，雖然不致被夾爆頭，但左臉頰仍被夾傷，須送往醫院治療。

2012年12月，貨車司機張春生駕駛密斗貨車往機場超級一號貨站送貨，疑操作尾板關上期間探頭查看車斗，因未能及時「抽身」，頭部被尾板夾困重傷。



Legal Requirements and Regulations

《職業安全及健康條例》

T-1
第 509 章

《職業安全及健康條例》 (第 509 章)

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《工廠及工業經營條例》

1
第 59 章

第 1 條

本條例旨在修訂有關工廠及工業經營的法律，以及修訂有關僱用婦女、青年及兒童在其中工作的法律。

[1955 年 9 月 29 日]

(格式變更——2015 年第 3 號編輯修訂紀錄)

1. 簡稱

本條例可引稱為《工廠及工業經營條例》。

2. 釋義

(1) 在本條例中，除文意另有所指外——


工業經營 (industrial undertaking) 包括——

- (a) 任何工廠；
- (b) 任何礦場或石礦場；(由 1969 年第 4 號第 2 條修訂)
- (c) 任何進行物品的製造、更改、清洗、修理、裝飾、精加工、出售前改裝、搗碎或拆除，或進行物料改變的工業，包括造船業；
- (d) 電力或任何種類動力的生產、變壓及輸送；
- (e) 任何建築工程；(由 1973 年第 52 號第 2 條代替)
- (f) 在任何船塢、埠頭、貨運碼頭、倉庫或機場裝卸或搬運貨品或貨物；(由 1973 年第 52 號第 2 條代替。由 1977 年第 73 號第 2 條修訂)
- (fa) 貨櫃處理作業；(由 1999 年第 53 號第 2 條代替)
- (g) 煤、建築材料或碎料的運送；(由 1973 年第 52 號第 2 條增補)


Legal Requirements and Regulations

Guidance Notes on

Prevention of Trapping Hazard of Tail Lifts



Occupational Safety and Health Branch
Labour Department



安全指引

預防被貨車尾板夾傷的危險



勞工處
職業安全及健康部



Tail lift on Dangerous Goods Vehicle

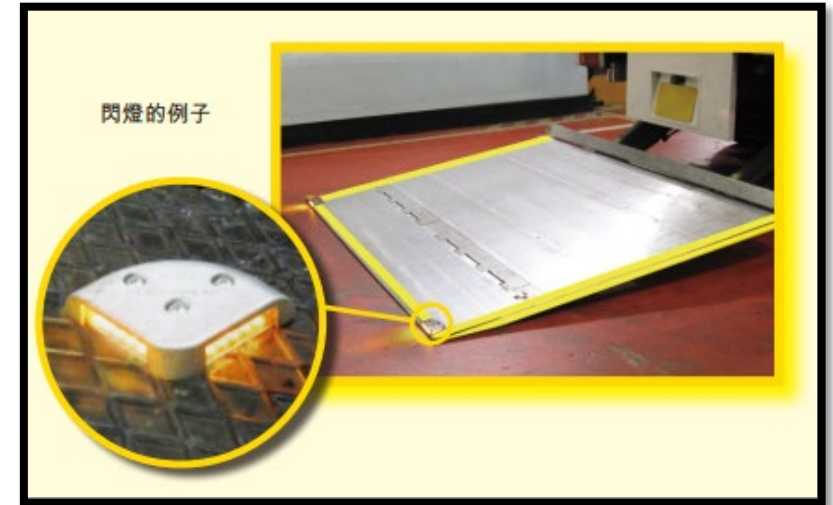


Requirements



雙手控制裝置的例子

Two-hand control device



閃燈的例子

Visual warning device



蜂鳴器的例子

Audio warning device

Requirements

Tripping Service



FSD Requirements



申請危險牌照及批准指南

(適用於第 2 至第 9A 類危險品，
不包括受香港法例第 51 章《氣體安全條例》
管制的石油氣及其他氣體)

2.1.10.3.3 裝載危險品應遵守以下事項：

(a) 切勿在危險品裝載區安裝電線／電器；



A Guide to Application for Dangerous Goods Licence and Approval

(for Class 2 to Class 9A Dangerous Goods
Excluding Liquefied Petroleum Gas and Other Gases under
Gas Safety Ordinance, Cap. 51, Laws of Hong Kong)

2.1.10.3.3 The following should be observed in relation to stowage of DG:

(a) Do not install electric wiring / device in DG stowage area;

FSD Requirements

標準消防安全規定

Standard Fire Safety Requirements

- 5 **Electrical Installation and Fittings**
- 5.1 No article capable of causing fire or explosion and no lighting apparatus except such portable lighting apparatus designed and constructed to be intrinsically safe and not exhibiting any metal surface liable to produce sparks should be carried on the vehicle.
- 5.2 All electric wiring shall be heavily insulated and resistant to abrasion and chemical action. The wiring fixed at positions behind the fire resisting shield shall be run in flexible metal conduit.
- 5.3 A safety cut-off switch shall be fitted in the driver's cab to isolate the electrical system from the battery. This installation shall be indicated in English letters and Chinese characters on the door of the vehicle and on the position inside the cab.
- 5.4 The nominal voltage of the electrical circuit shall not exceed 24 volts.

5. **電力裝置及配件**

除設計和製造為本質安全，且不具有任何易產生火花的金屬表面的便攜式照明設備外，不應在車輛上裝載任何可引致火警或爆炸的物件或照明設備。

所有電線須高度絕緣，並能抵抗磨損和具有抗化性能。位於防火板後的電線須套上金屬軟管。

安全斷流掣須安裝於駕駛室內，以便切斷電力系統與電池間的電流，並在車門上及駕駛室內以中英文字標明此裝置。

電路的標稱電壓不得超過24伏特。

Points to note

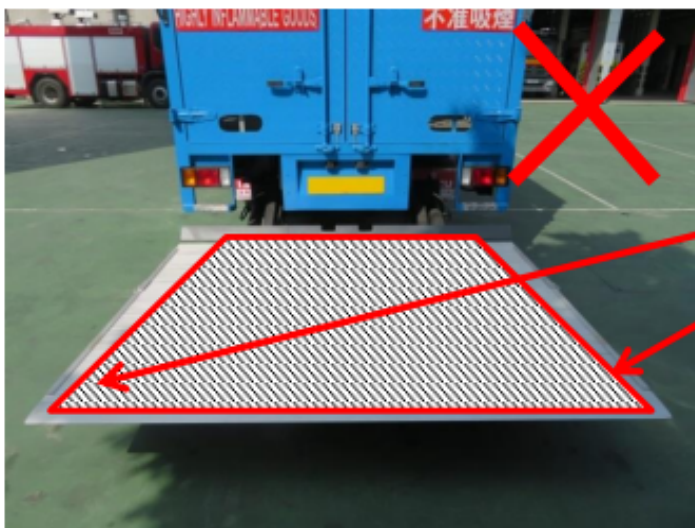


圖 1: 安裝於尾板上方表面**未符合**危險品車輛有關之消防安全規定

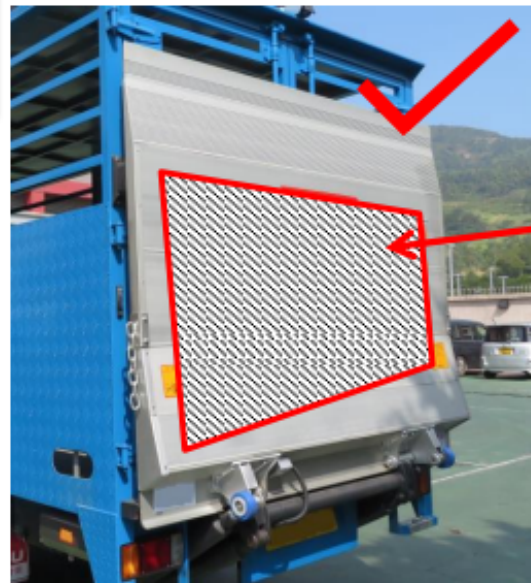


圖 2: 安裝於尾板背部上方表面**符合**危險品車輛有關之消防安全規定

FSD Requirements

標準消防安全規定

Standard Fire Safety Requirements

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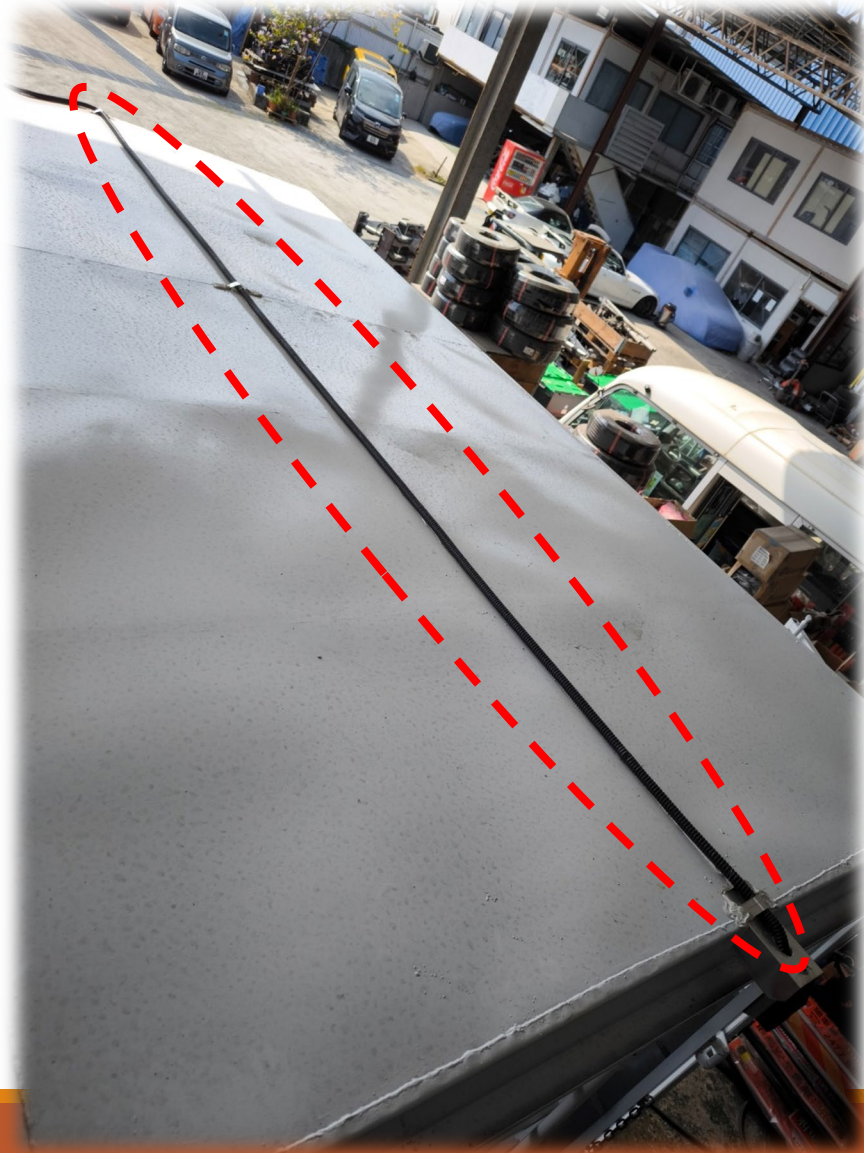
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電路的標稱電壓不得超過24伏特。

Points to note



FSD Requirements

標準消防安全規定

Standard Fire Safety Requirements

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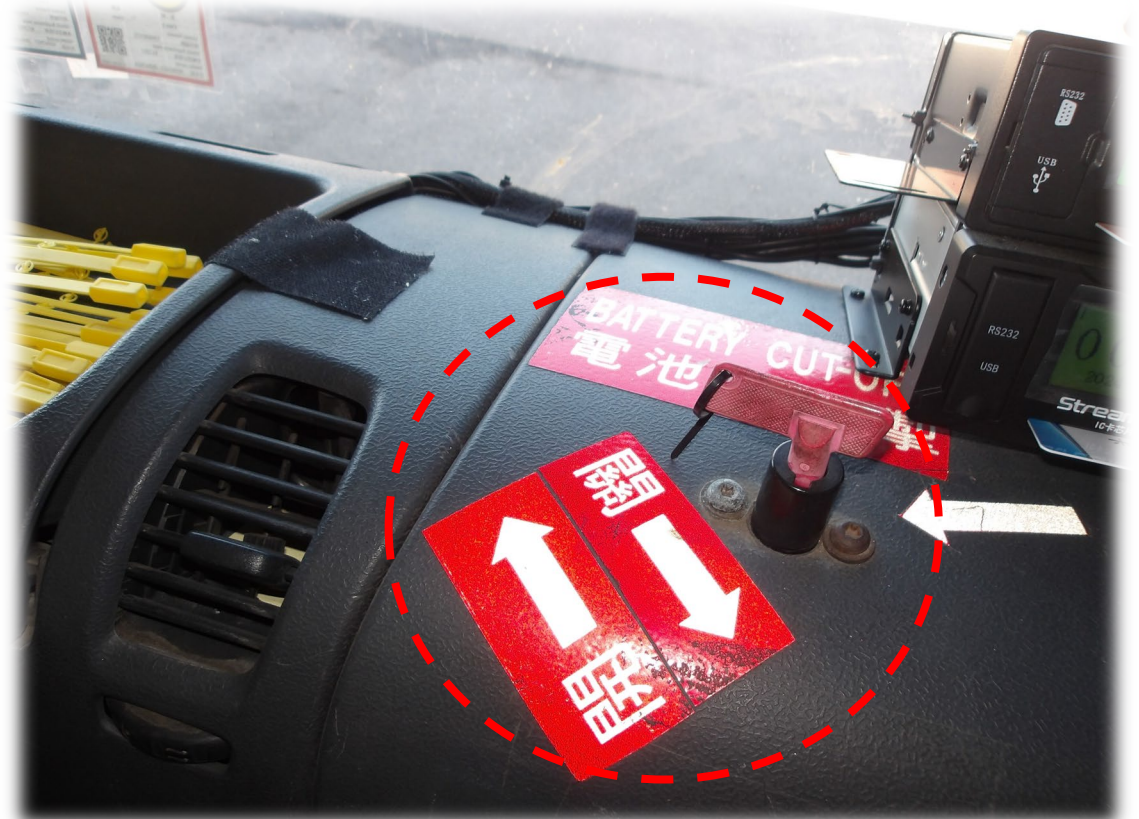
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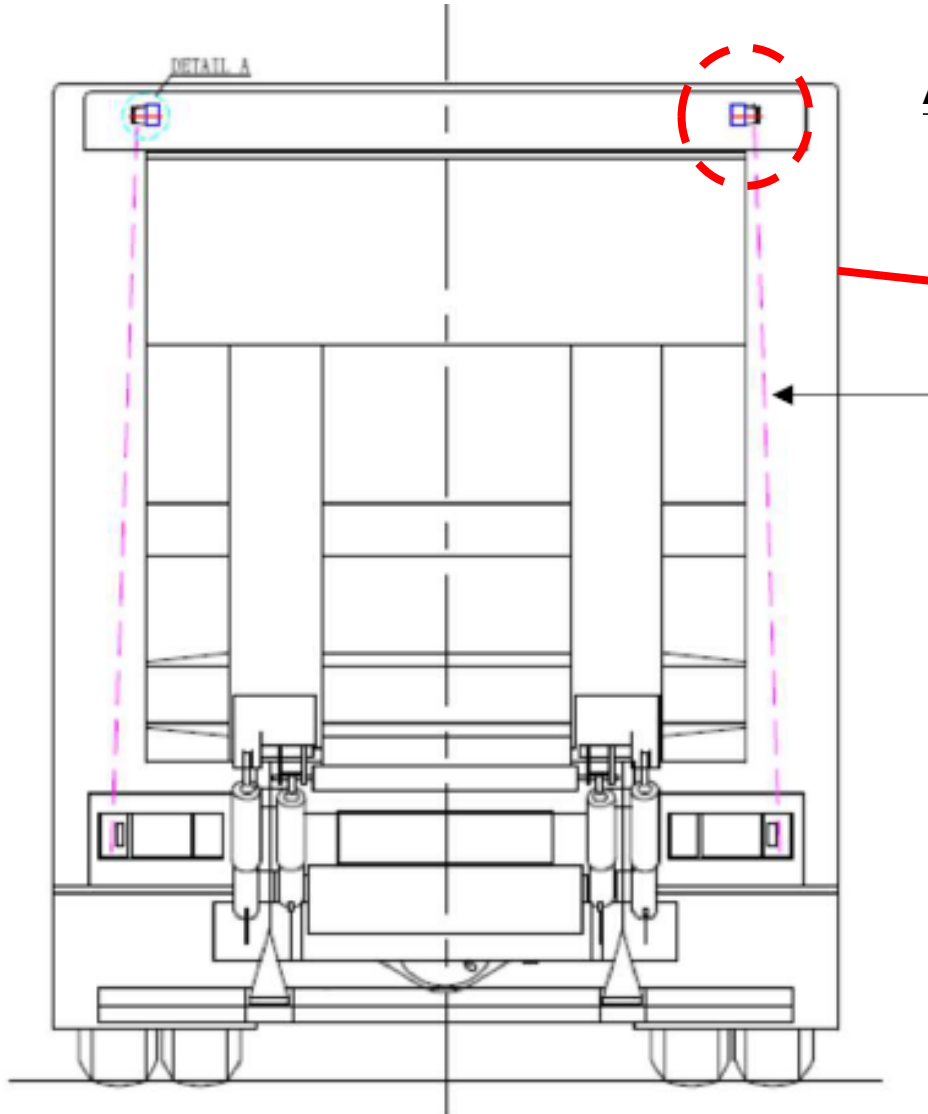
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電路的標稱電壓不得超過24伏特。

Points to note



Points to note



A metal case with an explosive proof glass window



**Senior Station Officer
PANG Tsz-kan**

3850 8475

Q & A

More Information

❖ General Enquiry:

➔ hkfsd_dg_enq@hkfsd.gov.hk

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

➔ **DG Thematic Website** (www.hkfsd.gov.hk/dg)



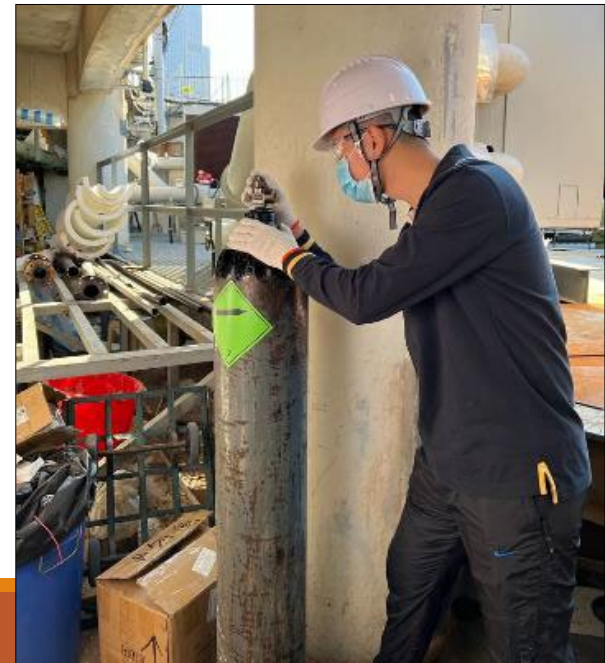
More Information

❖ 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

