

# The Amended Dangerous Goods Ordinance

March 31, 2022

Effective

## Pressure Receptacles

Proper Regulation of Dangerous Goods  
Better Protection for Our Home and Lives

# Know More About Pressure Receptacles

According to Section 145 of Dangerous Goods (Control) Regulation, Cap. 295G, Laws of Hong Kong ("Cap. 295G"), no person shall use a pressure receptacle for containing any Class 2 Dangerous Goods ("DG") unless the receptacle is of a type approved by the Director of the Fire Services.



### Class 2 DG

Class 2 DG includes gas substances which:

1. when the temperature reaches 50°C, their vapour pressure is greater than 300kPa; or
2. are completely gaseous at 20°C at a standard atmospheric pressure.

It comprises compressed gases, liquefied gases, dissolved gases, adsorbed gases, refrigerated liquefied gases, mixtures of one or more gases with one or more vapour or substances of other classes, articles charged with a gas and aerosols.

\*excluding any gas as stated under Section 2, Gas Safety Ordinance, Cap. 51, Laws of Hong Kong (e.g. LPG)

Class 2 DG is subdivided as follows:



Class 2.1 :  
Flammable gas



Class 2.2 :  
Non-flammable,  
non-toxic gas



Class 2.3 :  
Toxic gas

For more details, please refer to Chapter 2.2 of "The Code of Practice for Control of Dangerous Goods on Land" ("CoP")

### 1. Control of Pressure Receptacles

Apart from being approved by the Director of Fire Services, the receptacle concerned has to fulfill the packing requirements as stated in the CoP. In addition, it has to be inspected or tested at the frequency specified in the CoP or the manufacturing standard of the receptacle by a person approved by the Fire Services Department ("FSD"), and has to pass the inspection or test.

After the inspection or testing, the approved person shall produce a record for such inspection or testing, which shall include the name of the testing person, test date, details, result, etc. The owner of the pressure receptacle shall keep the record and produce it upon request by officers of the FSD.

To approve the use of a pressure receptacle, the FSD will consider the manufacturing standards, the type of gas contained, working pressure, filling ratio, valve specifications, etc. of the pressure receptacle, so as to ensure its fulfillment of the safety standards.

Person approved for inspecting and testing pressure receptacles under the repealed Dangerous Goods (General) Regulations, Cap. 295B, Laws of Hong Kong, must renew their licence in accordance with Cap. 295G before the end of the transitional period.

### Packing requirements for pressure receptacles under the new Regulatory Regime

Under the new regulatory regime, relevant packing requirements for pressure receptacles can be found in the Basic Packing Instruction (BP200) in the CoP, including

1. requirements such as construction & design, defects, maintenance, etc. which must be complied with
2. tables covering compressed gases, liquefied gases and dissolved gases, which provide information and requirements of various DG

BP200	Basic Packing Instruction (Compressed Gases)				
UN No.	Proper Shipping Name	Class	Max. Test Period (Year)	Min. Test Pressure (Bar)	Max. Filling Ratio (maximum working pressure) (Bar)
1045	Fluorine, compressed	2.3	5	200	30
1072	Oxygen, compressed	2.2	10	—	—
1660	Nitric oxide, compressed	2.3	5	225	33

\*Some DG have special packing requirements. For more information, please refer to the CoP.



Hong Kong Fire Services Department

For more information, please visit  
Hong Kong Fire Services Department  
Dangerous Goods Thematic Website

[www.hkfsd.gov.hk/dg](http://www.hkfsd.gov.hk/dg)



## 2. Procedure for Approval

- Applicants shall complete and submit the "Application Form for Pressure Receptacle Approval", in duplicate, with the required supporting documents (including the type of receptacle, design standards, calculation sheet, information of the gas contained and valve specifications, etc) to the FSD.
- The FSD will seek technical advice from the Boilers and Pressure Vessels Division of the Labour Department; subsequent reply will be made to the applicant by the FSD.

## 3. Legal Status of Pressure Receptacles approved under the repealed regulations

Pressure receptacles which have been approved before the commencement of new regulation are deemed to have been approved under Section 145(1) of Cap. 295G. No re-application is required.

## 4. List of Approved Pressure Receptacles

The Fire Services Department Dangerous Goods Thematic Website:  
(by using the search engine of pressure receptacle)  
[www.hkfsd.gov.hk/dg](http://www.hkfsd.gov.hk/dg)



## 5. Exemption from Approval and Inspection of Pressure Receptacles

- A. Pressure receptacles with water capacities not exceeding the limited quantities prescribed on the DG list under Dangerous Goods (Application and Exemption) Regulation 2012, Cap. 295E, Laws of Hong Kong, are exempt from approval and inspection. Examples are as below:

UN No.	Proper Shipping Name	Class	Limited Quantity (unit)
1002	Air, Compressed	2.2	0.12

For DG where limited quantity does not apply, corresponding pressure receptacle would not be exempt from approval and inspection. Examples are as follows:

UN No.	Proper Shipping Name	Class	Limited Quantity (unit)
1001	Acetylene, Dissolved	2.1	None
1003	Air, Refrigerated liquid	2.2	None

Pressure receptacle containing dissolved acetylene or refrigerated liquid air does not enjoy exemption regardless of its water capacity.

- B. Non-refillable pressure receptacles with the following specifications:

Non-refillable pressure receptacles satisfying the conditions stipulated in Section 145(2)(b) of Cap. 295G are exempt from approval and inspection:

Receptacles Manufactured According to the Standards Specified in the CoP

1.GB 17268 ; 2.ISO 11118 ;OR 3.DOT 39

### 1. Working pressure

No pressure limit      Pressure exceeds 35 bars but does not exceed 250 bars      Pressure does not exceed 35 bars

### 2. Water capacity

Water capacity does not exceed 1 litre      Water capacity does not exceed 5 litres      Water capacity does not exceed 25 litres

### 3. Class

Class 2      or      Class 2.1 or 2.2      or      Class 2.1 or 2.2

### 4. Example

Carbon dioxide cartridge      Refrigerant      Helium cylinders for inflating balloons

## 6. Amendment to the unit of Exempt Quantity for Class 2 DG

To facilitate the daily use of DG by the public and the trade, after thorough risk assessment, the Exempt Quantities ("EQ") of different Class 2 DG have been revised. The unit of the EQ has also been revised:

Repealed Regulations	Number of cylinders
New regulation	Litre (Counted by the water capacity of the pressure receptacle)

### Example 1 :

The General EQ for oxygen has been changed from 2 cylinders to 150 litres. Citizens with the need to use medical oxygen are facilitated to store oxygen bottles for backup purpose.

### Example 2 :

To facilitate the trade, the Industrial EQ for acetylene has been changed from 2 cylinders to 300 Litres.

## 7. Disposal of Pressure Receptacles

- Depleted pressure receptacles should be returned to the gas supplier or passed to a waste recycler according to its type and condition.
- Pressure receptacles not completely used up should be returned to the gas supplier or passed to a qualified chemical waste recycler for processing.

For more information about DG, please visit the Fire Services Department Dangerous Goods Thematic Website

[www.hkfsd.gov.hk/dg](http://www.hkfsd.gov.hk/dg)