Reprint
as at 1 December 2017

Hazardous Substances (Compressed Gases) Regulations 2004

(SR 2004/43)

Hazardous Substances (Compressed Gases) Regulations 2004: revoked, on 1 December 2017, by regulation 4(1) of the Hazardous Substances (Health and Safety Reform Revocations) Regulations 2017 (LI 2017/233).

Silvia Cartwright, Governor-General

Order in Council

At Wellington this 1st day of March 2004

Present:
Her Excellency the Governor-General in Council

Pursuant to section 140(1)(c) of the Hazardous Substances and New Organisms Act 1996, Her Excellency the Governor-General, acting on the advice and with the consent of the Executive Council (given on the recommendation of the Minister for the Environment made in compliance with section 141(1) of that Act), makes the following regulations.

Contents

Note

Changes authorised by subpart 2 of Part 2 of the Legislation Act 2012 have been made in this official reprint.

Note 4 at the end of this reprint provides a list of the amendments incorporated.

These regulations are administered by the Ministry for the Environment.

Part 7
Testing of cylinders and fittings

Part 8
Charging compressed gas cylinders and compressed gas stationary tanks

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Regulations

1 Title

These regulations are the Hazardous Substances (Compressed Gases) Regulations 2004.

2 Commencement

These regulations come into force on 26 March 2004.

3 Interpretation

In these regulations, unless the context otherwise requires,—

the Act means the Hazardous Substances and New Organisms Act 1996

aerosol means a substance packed under pressure and designed to be released as solid or liquid particles in a suspension of gas, as a foam, paste or powder, or in a liquid or in a gaseous state

aerosol dispenser means a compressed gas container that—

(a) is not refillable; and

(b) incorporates a valve designed to dispense the container's contents as an aerosol; and

(c) contains a compressed gas

ANSI means the American National Standards Institute

ANSI/CSA/CGA Standard V-1 means the standard on *Compressed Gas Cylinder Valve Outlet and Inlet Connections*

approved means approved by the Authority

AS 2030.1–2009 means Australian standard 2030.1–2009 *Gas cylinders—General requirements*

AS 2030.2 means the Australian standard on *The verification, filling inspection testing and maintenance of cylinders for the storage and transport of compressed gases. Part 2: Cylinders for dissolved acetylene*

AS 2030.5–2009 means Australian standard 2030.5–2009 *Gas cylinders—Filling, inspection and testing of refillable cylinders*

AS 2278.1–2008 means Australian standard 2278.1–2008 *Aerosol containers—Metal aerosol dispensers of capacity 50 mL to 1000 mL inclusive*

AS 2337.1–2004 means Australian standard 2337.1–2004 *Gas cylinder test stations—General requirements, inspection and tests—Gas cylinders*

AS 2337.3–2006 means Australian standard 2337.3–2006 *Gas cylinder test stations—Transportable gas cylinders—Periodic inspection and testing of composite gas cylinders*

AS 2473.1–2006 means Australian standard 2473.1–2006 *Valves for compressed gas cylinders—Specifications, type testing, and manufacturing tests and inspections*

AS 2473.2–2007 means Australian standard 2473.2–2007 *Valves for compressed gas cylinders—Outlet connections (threaded) and stem (inlet) threads*

AS 2473.3–2007 means Australian standard 2473.3–2007 *Valves for compressed gas cylinders—Outlet connections for medical gases (including pin-indexed yoke connections)*

AS 3635 means the Australian standard on *Unified (ISO inch) screw threads, associated gauges, and gauging practice*

AS 3840.1–1998 means Australian standard AS 3840.1–1998 *Pressure regulators for use with medical gases—Pressure regulators and pressure regulators with flow-metering devices*

AS 4267 means the Australian standard on *Pressure regulators for use with industrial compressed gas cylinders*

AS 4621–2004 means Australian standard 4621–2004 *Regulators for use with liquefied petroleum—Vapour phase*

AS/NZS means a Joint Australian and New Zealand Standard

AS/NZS 1841.1–AS/NZS 1841.8 means Parts 1 to 8 of the standard on *Portable Fire Extinguishers*

Authority means the Environmental Protection Authority established by section 7 of the Environmental Protection Authority Act 2011

BS 341 means the British standard on *Transportable gas container valves*

BS 1552 means the British standard on *Specification for open bottomed taper plug valves for 1st, 2nd, and 3rd family gases up to 200 mbar*

BSP means a British standard pipe

CGA means the Compressed Gas Association

CGA V–1 (2005) means the *CGA Standard for Compressed Gas Cylinder Valve Outlet and Inlet Connections* published in November 2005

Chapter 6.2 of UNRTDG includes any amendment or replacement of that chapter made by the United Nations Economic and Social Council

charge means load or fill a compressed gas container

compressed gas means any of the following gases when packaged under pressure:

(a) a gas that is entirely gaseous at −50°C:

(b) a liquefied gas:

(c) a refrigerated liquefied gas:

(d) a dissolved gas

compressed gas container—

(a) means a container in which compressed gas is held with fittings or equipment designed to retain the gas in its compressed form; and

(b) includes any aerosol dispenser, fire extinguisher, cryogenic container, cylinder, tank, or compressed gas stationary tank; but

(c) does not include—

(i) a pressure vessel that is a pipeline under the Health and Safety in Employment (Pipelines) Regulations 1999; or

(ii) an air receiver used in connection with the starting of an internal combustion engine; or

(iii) a receiver that forms part of a compression plant; or

(iv) a container that forms an integral part of a refrigerating unit; or

(v) a pressurised container that forms an integral part of the motive or control system of a vehicle, aircraft, or ship; or

(vi) an aerosol container with a water capacity less than 50 millilitres or for which the absolute pressure developed at 20°C is less than 170 kPa; or

(vii) a cartridge with a water capacity less than 170 millilitres; or

(viii) a non-refillable container with a water capacity of less than 100 millilitres; or

(ix) a cylinder with a water capacity of less than 120 millilitres, if the contents are a liquefied gas with flammable properties; or

(x) a cylinder with a water capacity of less than 500 millilitres, if the contents are not a liquefied gas with flammable properties; or

(xi) a cylinder with a water capacity of greater than 500 litres, except that this subparagraph does not apply in relation to regulation 7, Part 8, or Part 9; or

(xii) carbonated beverages or their containers

compressed gas stationary tank means a tank that is—

(a) used or intended to be used for storage or supply of 1 or more compressed gases; and

(b) normally located at a specific place

critical temperature means the temperature of a gas in its critical state, above which it cannot be liquefied by pressure alone

cryogenic container means a closed pressure container designed to maintain an internal temperature low enough to cause the gas inside it to revert to its liquid or partially liquid state

CSA means the Canadian Standards Association

cylinder—

(a) means a refillable or non-refillable compressed gas container that is commonly used for storing and transporting compressed gases; and

(b) includes a cryogenic container and a fire extinguisher; but

(c) does not include an aerosol dispenser

design means all specifications (including drawings) necessary to describe the attributes of a compressed gas container

design verifier means a test certifier approved to issue design verification certificates under regulation 15

DIN means Deutsches Institut für Normung e.V.

DIN EN ISO 11363–1 means DIN EN ISO Standard 11363–1 (2012–06) *Gas cylinders—17E and 25E taper threads for connection of valves to gas cylinders—Part 1: Specifications*

dissolved gas means a gas that when packaged under pressure is dissolved in a liquid phase solvent

dry gas means a gas having a dew point of less than −40°C at a pressure of 101.3 kPa absolute

empty weight, in relation to a cylinder, means the weight of the cylinder complete with its valve and any other fittings or appurtenances that are normally on the cylinder when it is being filled

filling ratio, in relation to a liquefied gas, means the ratio of the mass of gas charged into a compressed gas container to the mass of water at 15°C that fills the compressed gas container

fire extinguisher means a compressed gas container intended to hold an extinguishant that can be discharged onto a fire by, or by being, a gas under pressure

fire extinguisher registration number means a fire extinguisher registration number issued by a product certification body in accordance with regulation 23B

fitting, in relation to a compressed gas container, means a device (including a valve, adaptor, automatic changeover device, gauge, regulator, seal, or hose) that is connected to a compressed gas container and that is used to—

(a) fill or empty the compressed gas container with gas; or

(b) seal a connection to a compressed gas container with gas; or

(c) connect the compressed gas container directly to another item associated with the use of the gas; or

(d) protect the compressed gas container from overpressurising

gas has the meaning given to it in regulation 3 of the Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001

high-pressure fire extinguisher means a fire extinguisher that is not a low-pressure fire extinguisher

high pressure liquefied gas means a liquefied gas with a critical temperature above −50°C but below or equal to +65°C

IEC means the International Electrotechnical Commission

ISO means the International Standards Organisation

ISO/IEC 17011:2004 means ISO/IEC Standard 17011:2004 *Conformity assessment—General requirements for accreditation bodies accrediting conformity assessment bodies*

ISO/IEC Guide 65 means the standard on *General Requirements for bodies Operating Product Certification Systems*

LC50 means the median lethal concentration, being a statistically derived concentration of a substance that can be expected to cause death in 50% or more of the organisms exposed to the substance for a specified time

LH means left hand

liquefied gas means a gas that is partially liquid at temperatures above −50°C when packaged under pressure

low-pressure fire extinguisher means a fire extinguisher with a test pressure of less than 7000 kilopascals

low pressure liquefied gas means a liquefied gas with a critical temperature above +65°C

LPGITA means the UK LP Gas Association

maximum developed pressure means the pressure developed by the contents of a compressed gas container in equilibrium at the reference temperatures specified in regulation 7

NGO means the National Gas Outlet (America)

periodic tester means a test certifier approved to issue periodic certificates under regulation 52

permanent gas means a gas with a critical temperature not exceeding −50°C

place has the meaning given to it by regulation 3 of the Hazardous Substances (Emergency Management) Regulations 2001

pre-commissioning tester means a test certifier approved by the Authority to issue pre-commissioning certificates under regulation 22

product certification body means a body accredited to ISO/IEC Guide 65 by a national or New Zealand joint accreditation agency operating to ISO/IEC 17011:2004

QCC valve means a quick coupling connection valve

recognised inspection agency means a person or organisation recognised by the Authority for the purposes of any of regulations 16, 17, 19, 36, and 39

reference temperature for filling ratio means the temperature at which the liquid density is to be evaluated for calculating the filling ratio

refrigerated liquefied gas means a gas that when packaged is partially liquid because of its low temperature

RH means right hand

standard has the meaning given to it by section 2 of the Standards Act 1988

tare weight, in relation to a cylinder, means the weight of the cylinder shell with all removable fittings removed

test pressure means the pressure the cylinder is designed and tested to withstand

UL means the Underwriters Laboratories Inc

UL 125–2009 means UL 125–2009 *Standard for Flow Control Valves for Anhydrous Ammonia and LP-Gas*

UL 144–2012 means UL 144–2012 *Standard for LP-Gas Regulators*

UL 252 means the standard on *Compressed Gas Regulators*

UL 2061 means the standard on *Adapters and Cylinder Connection Devices for Portable LP-Gas Cylinder Assemblies*

UL 2227 means the standard on *Overfilling Prevention Devices*

UNRTDG—

(a) means the 17th revised edition of the *UN Recommendations on the Transport of Dangerous Goods—Model Regulations* (2011); and

(b) includes any amendment to, or replacement of, material in the model regulations that has legal effect as part of these regulations under section 141B of the Act; but

(c) does not include any material that ceases to have legal effect as part of these regulations under section 141D of the Act

volume of gas means the volume of a gas at 101.3 kPa absolute pressure and 15°C

water capacity means the volume of water at 15°C that fills a compressed gas container that is fitted for use with any valve, dip tube, float, or other necessary fittings.

Regulation 3 **AGA**: revoked, on 1 November 2012, by regulation 4(1)(a) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

Regulation 3 **AGA 205**: revoked, on 1 November 2012, by regulation 4(1)(b) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

Regulation 3 **AS 2030.1**: revoked, on 1 November 2012, by regulation 4(1)(c) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

Regulation 3 **AS 2030.1–2009**: inserted, on 1 November 2012, by regulation 4(2) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

Regulation 3 **AS 2030.5–2009**: inserted, on 1 November 2012, by regulation 4(2) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

Regulation 3 **AS 2278**: revoked, on 1 November 2012, by regulation 4(1)(d) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

Regulation 3 **AS 2278.1–2008**: inserted, on 1 November 2012, by regulation 4(2) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

Regulation 3 **AS 2337.1**: revoked, on 1 November 2012, by regulation 4(1)(e) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

Regulation 3 **AS 2337.1–2004**: inserted, on 1 November 2012, by regulation 4(2) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

Regulation 3 **AS 2337.3–2006**: inserted, on 1 November 2012, by regulation 4(2) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

Regulation 3 **AS 2472**: revoked, on 1 November 2012, by regulation 4(1)(f) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

Regulation 3 **AS 2473**: revoked, on 1 November 2012, by regulation 4(1)(g) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

Regulation 3 **AS 2473.1–2006**: inserted, on 1 November 2012, by regulation 4(2) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

Regulation 3 **AS 2473.2–2007**: inserted, on 1 November 2012, by regulation 4(2) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

Regulation 3 **AS 2473.3–2007**: inserted, on 1 November 2012, by regulation 4(2) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

Regulation 3 **AS 2474**: revoked, on 1 November 2012, by regulation 4(1)(h) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

Regulation 3 **AS 3840**: revoked, on 1 November 2012, by regulation 4(1)(i) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

Regulation 3 **AS 3840.1–1998**: inserted, on 1 November 2012, by regulation 4(2) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

Regulation 3 **AS 4621–2004**: inserted, on 1 November 2012, by regulation 4(2) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

Regulation 3 **Authority**: substituted, on 1 July 2011, by section 53(3) of the Environmental Protection Authority Act 2011 (2011 No 14).

Regulation 3 **CGA V–1 (2005)**: inserted, on 1 November 2012, by regulation 4(2) the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

Regulation 3 **Chapter 6.2 of UNRTDG**: inserted, on 1 November 2012, by regulation 4(2) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

Regulation 3 **compressed gas**: replaced, on 1 November 2012, by regulation 4(3) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

Regulation 3 **compressed gas container** paragraph (c)(vii): amended, on 23 September 2004, by regulation 3(3) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2004 (SR 2004/255).

Regulation 3 **DIN**: inserted, on 1 November 2012, by regulation 4(2) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

Regulation 3 **DIN EN ISO 11363–1**: inserted, on 1 November 2012, by regulation 4(2) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

Regulation 3 **dissolved gas**: inserted, on 1 November 2012, by regulation 4(2) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

Regulation 3 **fire extinguisher registration number**: inserted, on 1 November 2012, by regulation 4(2) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

Regulation 3 **gas**: replaced, on 1 November 2012, by regulation 4(4) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

Regulation 3 **high-pressure fire extinguisher**: inserted, on 1 November 2012, by regulation 4(2) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

Regulation 3 **high pressure liquefiable gas**: revoked, on 1 November 2012, by regulation 4(1)(j) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

Regulation 3 **high pressure liquefied gas**: inserted, on 1 November 2012, by regulation 4(2) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

Regulation 3 **ISO/IEC 17011:2004**: inserted, on 1 November 2012, by regulation 4(2) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

Regulation 3 **ISO/IEC Guide 61**: revoked, on 1 November 2012, by regulation 4(1)(k) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

Regulation 3 **liquefiable gas**: revoked, on 1 November 2012, by regulation 4(1)(l) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

Regulation 3 **liquefied gas**: inserted, on 1 November 2012, by regulation 4(2) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

Regulation 3 **low-pressure fire extinguisher**: inserted, on 1 November 2012, by regulation 4(2) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

Regulation 3 **low pressure liquefiable gas**: revoked, on 1 November 2012, by regulation 4(1)(m) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

Regulation 3 **low pressure liquefied gas**: inserted, on 1 November 2012, by regulation 4(2) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

Regulation 3 **LPGITA**: substituted, on 23 September 2004, by regulation 3(4) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2004 (SR 2004/255).

Regulation 3 **product certification body**: amended, on 1 November 2012, by regulation 4(5) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

Regulation 3 **refrigerated liquefied gas**: inserted, on 1 November 2012, by regulation 4(2) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

Regulation 3 **SFS EN**: revoked, on 1 November 2012, by regulation 4(1)(n) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

Regulation 3 **SFS EN 629.1**: revoked, on 1 November 2012, by regulation 4(1)(o) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

Regulation 3 **UL 125**: revoked, on 1 November 2012, by regulation 4(1)(p) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

Regulation 3 **UL 125–2009**: inserted, on 1 November 2012, by regulation 4(2) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

Regulation 3 **UL 144**: revoked, on 1 November 2012, by regulation 4(1)(q) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

Regulation 3 **UL 144–2012**: inserted, on 1 November 2012, by regulation 4(2) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

Regulation 3 **UNRTDG**: inserted, on 1 November 2012, by regulation 4(2) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

4 Application of regulations to certain pressure equipment

(1) The provisions of these regulations, other than the provisions applied by subclause (2), do not apply to pressure equipment to which the Health and Safety in Employment (Pressure Equipment, Cranes, and Passenger Ropeways) Regulations 1999 apply.

(2) Parts 1, 8, and 9 apply, with the necessary modifications, to that pressure equipment.

Regulation 4: substituted, on 23 September 2004, by regulation 4 of the Hazardous Substances (Compressed Gases) Amendment Regulations 2004 (SR 2004/255).

5 Application of existing standards

All design standards and designs that were, immediately before the commencement of these regulations, approved under the Dangerous Goods (Class 2—Gases) Regulations 1980 must be treated as approved design standards and approved designs, respectively, under these Regulations.

5A Application of regulations to UNRTDG cylinders

(1) Parts 2 and 2A, which relate to the design, construction, and initial testing of cylinders (including fire extinguishers), do not apply to a cylinder that is marked, in accordance with clause 6.2.2.7 of Chapter 6.2 of UNRTDG, with markings that—

(a) are affixed by or on behalf of the government of a country other than New Zealand; and

(b) certify that the cylinder has been designed and constructed, and passed initial inspections and tests, in accordance with Chapter 6.2 of UNRTDG.

(2) Regulations 39 to 42, which relate to the marking of cylinders, do not apply to a cylinder that is marked in accordance with clause 6.2.2.7 of Chapter 6.2 of UNRTDG.

(3) A test certifier may issue an import test clearance for a cylinder in accordance with the Schedule if the cylinder has markings that—

(a) are made by or on behalf of the government of a country other than New Zealand; and

(b) certify that the cylinder has passed initial inspections and tests, or periodic tests, in accordance with Chapter 6.2 of UNRTDG.

(4) All cylinders repaired in New Zealand must be repaired in accordance with Part 8A.

Regulation 5A: inserted, on 1 November 2012, by regulation 5 of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

Part 1
Reference temperatures and compatibility

6 Design to withstand maximum developed pressure

(1) A compressed gas container for the packing, conveyance, or storage of compressed gas that is not intended for use outside New Zealand must be of a design adequate to withstand the maximum developed pressure for the compressed gas container as specified in the standard that applies to the design at the reference temperature for the size and type of compressed gas container specified in regulation 7.

(2) Subclause (1) applies unless the Authority otherwise directs or approves.

7 Reference temperatures

The reference temperatures for compressed gas containers are as follows:

Type of gas	Water capacity of container (litres)	Reference temperatures (°C)
Permanent gas	Any size	65.0
High pressure liquefied gas	Not exceeding 500	55.0
	Exceeding 500 but not exceeding 1 000	55.0
	Exceeding 1 000 but not exceeding 5 000	52.5
	Exceeding 5 000	47.5
Low pressure liquefied gas	Not exceeding 250	57.5
	Exceeding 250 but not exceeding 500	52.5
	Exceeding 500 but not exceeding 1 000	52.5
	Exceeding 1 000 but not exceeding 5 000	50.0
	Exceeding 5 000 but not exceeding 26 000	45.0
	Exceeding 26 000	40.0
Cryogenic and dissolved acetylene	Not exceeding 500	52.5

Regulation 7 table: amended, on 1 November 2012, by regulation 6 of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

Regulation 7 table: amended, on 23 September 2004, by regulation 5 of the Hazardous Substances (Compressed Gases) Amendment Regulations 2004 (SR 2004/255).

Compatibility

8 Compatibility

(1) All parts of a compressed gas container (including fittings, seals, lubricants, and insulating material) that will or may come into contact with the contents (including any gas, solvent, expellable material, or porous material used) must be compatible with the contents.

(2) In subclause (1), **compatible** means—

(a) one of the following:

(i) the compressed gas container is chemically inert in relation to its intended contents for the range of operating temperatures and pressures specified in the design:

(ii) if any part of the compressed gas container will chemically react with its intended contents, the reaction—

(A) will not cause or contribute to a fire or explosion; and

(B) will not generate a hazardous substance:

(iii) if any part of the compressed gas container will chemically react with its intended contents, and the contents include a hazardous substance (the **original substance**), the reaction will not generate a new hazardous substance with a classification (as specified in the Hazardous Substances (Classification) Regulations 2001) that is different from the classification for the original substance; and

(b) the compressed gas container will not be softened, weakened, susceptible to brittle fracture or stress corrosion cracking, or be otherwise affected by any intended contents of the compressed gas container in such a way that any part of the compressed gas container will not meet any requirement to which it is subject under these regulations.

Part 2
Cylinders

Standards

[Revoked]

Heading: revoked, on 1 November 2012, by regulation 7 of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

9 Application of this Part

(1) This Part applies to cylinders that are refillable (including high-pressure fire extinguishers that are refillable cylinders).

(2) The Part applies to a non-refillable container if the Authority determines that the container should comply with the requirements of this Part relating to refillable cylinders.

(3) This Part does not apply to any other non-refillable container or non-refillable aerosol dispenser.

Regulation 9(1): amended, on 1 November 2012, by regulation 8 of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

9A Use and supply of cylinders

A person must not use or supply a cylinder in New Zealand unless the cylinder has,—

(a) if it was manufactured in New Zealand,—

(i) a design verification certificate issued in accordance with regulation 15; and

(ii) a manufacturing certificate issued in accordance with regulation 16; and

(iii) if required, a pre-commissioning certificate issued in accordance with regulation 22 or waived in accordance with regulation 21; or

(b) if it was manufactured outside New Zealand,—

(i) a test certificate issued in accordance with regulation 19; and

(ii) if required, a pre-commissioning certificate issued in accordance with regulation 22 or waived in accordance with regulation 21.

Regulation 9A: inserted, on 1 November 2012, by regulation 9 of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

Standards

Heading: inserted, on 1 November 2012, by regulation 9 of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

10 Standards for cylinders

A design for a cylinder, other than a fire extinguisher, must comply with—

(a) an appropriate standard listed on the Authority's register; or

(b) an existing design standard under regulation 5; or

(c) a code of practice approved by the Authority under section 79 of the Act relating to cylinders that specifies requirements equivalent to the requirements of a standard referred to in paragraph (a).

11 Standards for fire extinguishers

A design for a fire extinguisher must comply with—

(a) *[Revoked]*

(b) a existing design standard under regulation 5; or

(c) a code of practice approved by the Authority under section 79 of the Act relating to fire extinguisher safety that specifies requirements equivalent to the requirements of a standard referred to in paragraph (a) or paragraph (b).

Regulation 11(a): revoked, on 1 November 2012, by regulation 10 of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

12 Standards for cylinder neck threads

The cylinder neck thread of a cylinder must comply with—

(a) the standard to which the cylinder is designed; or

(b) if that standard does not specify requirements for the neck thread,—

(i) AS 2473.1–2006; or

(ii) AS 2473.2–2007; or

(iii) ANSI/CSA/CGA Standard V–1; or

(iv) DIN EN ISO 11363–1; or

(v) Unified Screw Thread (UNF) class 2B of AS 3635; or

(c) an existing design standard under regulation 5; or

(d) a code of practice approved by the Authority under section 79 of the Act relating to valve stem thread safety that specifies requirements equivalent to the requirements of a standard referred to in paragraph (b) or paragraph (c).

Regulation 12(b): replaced, on 1 November 2012, by regulation 11 of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

13 Materials used for cylinders

Materials used in the construction of a cylinder must have properties that ensure that the cylinder will contain the compressed gas for the following temperature range:

(a) a low temperature not higher than—

(i) the temperature prescribed in the standard to which the cylinder was designed as the low temperature applying to the design of the cylinders; or

(ii) for a cryogenic container that is a cylinder, the lowest temperature reached by the compressed gas (liquefied or partially liquefied) that the cylinder is designed to hold:

(b) a high temperature not lower than the reference temperatures specified in regulation 7 for the size and type of cylinder.

Design verification

Heading: inserted, on 1 November 2012, by regulation 12 of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

14 Cylinders for gases held at cryogenic temperatures

Cylinders intended to contain gas at a cryogenic temperature must be designed to ensure that—

(a) the surface of any part of the cylinder designed to maintain the temperature of the gas is sufficiently insulated from the exterior surfaces of the cylinder so as to prevent injury to a person handling the cylinder; and

(b) moisture cannot enter into the insulation space or insulation material; and

(c) if the design provides for a vacuum between the inner and outer shells, the outer shell is able to withstand an external pressure of at least 200 kPa absolute without permanent deformation.

15 Design verification of cylinders

(1) A person may apply to a design verifier for a design verification certificate for a cylinder.

(2) The application must—

(a) include all relevant specifications, including technical drawings and calculations; and

(b) refer to a design standard referred to in regulation 10 or regulation 11 relating to the design of a cylinder.

(3) A design verifier may issue a design verification certificate for a design only if the design verifier is satisfied that the design meets the requirements of this Part.

(4) A design verifier may issue a design verification certificate subject to conditions.

(5) A design verifier must, as soon as practicable after issuing a design verification certificate, provide to the Authority—

(a) a copy of the design verification certificate and any conditions relating to the certificate; and

(b) a copy of the application for the design verification certificate.

(6) On receiving the information required under subclause (5), the Authority must—

(a) allocate a register number to the design verification certificate; and

(b) enter the details of the design verification certificate on the register kept under regulation 75.

Regulation 15(1): substituted, on 23 September 2004, by regulation 6 of the Hazardous Substances (Compressed Gases) Amendment Regulations 2004 (SR 2004/255).

Regulation 15(2): substituted, on 23 September 2004, by regulation 6 of the Hazardous Substances (Compressed Gases) Amendment Regulations 2004 (SR 2004/255).

Cylinder manufacture

Heading: replaced, on 1 November 2012, by regulation 13 of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

16 Manufacture of cylinders

A person who manufactures a cylinder must—

(a) manufacture the cylinder to a design—

(i) for which a design verification certificate has been obtained under regulation 15; and

(ii) that complies with a design standard referred to in regulation 10 or regulation 11 relating to the design of a cylinder; and

(b) obtain a manufacturing certificate for each batch of cylinders from a recognised inspection agency stating that the batch of cylinders has been manufactured in accordance with that design and meets the quality assurance requirements specified in the design; and

(c) provide copies of the manufacturing certificate to the purchaser of the batch to which the certificate relates; and

(d) ensure that the cylinder complies with the requirements of Part 6; and

(e) not supply cylinders to a retailer unless the manufacturer has provided to the retailer, under paragraph (c), copies of the relevant manufacturing certificate for those cylinders.

Regulation 16(a): substituted, on 23 September 2004, by regulation 7(1) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2004 (SR 2004/255).

Regulation 16(d): amended, on 23 September 2004, by regulation 7(2) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2004 (SR 2004/255).

Regulation 16(e): added, on 23 September 2004, by regulation 7(2) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2004 (SR 2004/255).

17 Repair of cylinders

[Revoked]

Regulation 17: revoked, on 1 November 2012, by regulation 14 of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

Importation of cylinders

18 Restrictions on imported cylinders

(1) A person who imports a cylinder or a batch of cylinders into New Zealand must obtain a test certificate under regulation 19 for each cylinder.

(2) An importer to whom subclause (1) applies must not supply cylinders unless the importer has first obtained the appropriate test certificate.

Regulation 18: substituted, on 23 September 2004, by regulation 8 of the Hazardous Substances (Compressed Gases) Amendment Regulations 2004 (SR 2004/255).

Regulation 18(2): amended, on 1 November 2012, by regulation 15 of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

19 Test certificate for imported cylinders

(1) A person who imports a cylinder or a batch of cylinders into New Zealand must apply for and obtain a test certificate from a test certifier.

(2) The application must contain the following information:

(a) a manufacturer's certificate endorsed by a recognised inspection agency:

(b) *[Revoked]*

(c) the number of cylinders in the batch:

(d) the cylinders' serial numbers (or batch numbers for fire extinguisher cylinders containing other than a permanent or a liquefied gas):

(e) information identifying the gas or gases for which the cylinder is intended to be used:

(f) the water capacity of the cylinders:

(g) the standard to which the cylinder was designed:

(h) the register number of the design verification certificate relating to the cylinders.

(3) A test certifier may issue a test certificate for the cylinders to which the application relates only if satisfied that—

(a) the markings on the cylinders comply with Part 6; and

(b) any conditions on the cylinder design verification certificate relating to the cylinders have been satisfied; and

(c) the cylinders would pass the tests and inspections in regulation 22(2)(b).

(4) *[Revoked]*

Regulation 19 heading: amended, on 23 September 2004, by regulation 9(1) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2004 (SR 2004/255).

Regulation 19(1): substituted, on 23 September 2004, by regulation 9(2) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2004 (SR 2004/255).

Regulation 19(2)(a): replaced, on 1 November 2012, by regulation 16(1) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

Regulation 19(2)(b): revoked, on 1 November 2012, by regulation 16(2) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

Regulation 19(2)(d): amended, on 1 November 2012, by regulation 16(3) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

Regulation 19(3): substituted, on 23 September 2004, by regulation 9(3) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2004 (SR 2004/255).

Regulation 19(3)(c): amended, on 1 November 2012, by regulation 16(4) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

Regulation 19(4): revoked, on 23 September 2004, by regulation 9(3) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2004 (SR 2004/255).

Pre-commissioning certificates

20 Requirement for pre-commissioning certificate

A person must not use or supply an imported or manufactured cylinder of a design that has not been previously imported into, or manufactured in, New Zealand unless the person has first obtained a pre-commissioning certificate under regulation 22.

Regulation 20: substituted, on 23 September 2004, by regulation 10 of the Hazardous Substances (Compressed Gases) Amendment Regulations 2004 (SR 2004/255).

21 Waiver of pre-commissioning certificate requirement

(1) The Authority may, in any particular case, waive the requirements of regulation 20 on an application in the approved form.

(2) In considering whether or not to grant a waiver, the Authority must have regard to—

(a) the types and quantities of cylinders to which the application relates; and

(b) the types and quantities of substances proposed to be contained in those cylinders; and

(c) the compliance and quality control history of the manufacturer of the cylinders to which the application relates; and

(d) the similarity of the design and manufacture of the cylinders to the design and manufacture of other cylinders previously supplied by that manufacturer.

(3) If the Authority waives the requirements of regulation 20 in relation to a design of a cylinder, the Authority must—

(a) allocate a special register number to the design; and

(b) enter the details of the special register number on the register kept under regulation 76.

22 Issue of pre-commissioning certificate

(1) A person may apply to a pre-commissioning tester for a pre-commissioning certificate for the cylinder design.

(2) A pre-commissioning tester may issue a pre-commissioning certificate for a cylinder design only if he or she is satisfied that—

(a) the relevant batch of cylinders meets the requirements of regulation 19(3)(a) and (b); and

(b) samples of the cylinders to which the application relates have been taken, inspected, and tested in accordance with the design standard that relates to the cylinders and show—

(i) on a visual inspection, that the overall construction, where applicable including valve protection and overpressure protection devices, surface finishing, and any joints shows no external indication of visible corrosion, stress cracking, or weld defects; and

(ii) that the dimensions of the neck of the cylinder conform, within any tolerances allowed, to the applicable standard (if any), and that there is no visible internal corrosion or stress cracking; and

(iii) on measurement of the tare and empty weights and water capacity, that the cylinders conform, within any tolerances allowed, to the design standards to which the cylinders were manufactured; and

(iv) that the cylinders conform to the design to which the cylinders were manufactured.

(3) A pre-commissioning tester must, as soon as practicable after issuing a pre-commissioning certificate, provide to the Authority—

(a) a copy of the pre-commissioning certificate; and

(b) a copy of the pre-commissioning tester's report on the design to which the pre-commissioning certificate relates.

Regulation 22(2)(a): amended, on 1 November 2012, by regulation 17 of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

23 Declining to issue pre-commissioning certificate

If a pre-commissioning tester declines to issue a pre-commissioning certificate for a cylinder design, the pre-commissioning tester must—

(a) either—

(i) allow all cylinders in that shipment to be brought into compliance, where this is possible, and issue a pre-commissioning certificate; or

(ii) oversee the disposal of every cylinder by—

(A) physically altering every cylinder so that the cylinder is unable to contain, or be returned to a state in which it could contain, gas under pressure; or

(B) being satisfied that every cylinder has been returned to the country of origin; and

(b) provide a report to the Authority setting out how the requirements of this regulation have been met.

Part 2A
Low-pressure fire extinguishers

Part 2A: inserted, on 1 November 2012, by regulation 18 of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

23A Application of this Part

This Part applies to low-pressure fire extinguishers.

Regulation 23A: inserted, on 1 November 2012, by regulation 18 of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

23B Fire extinguisher registration number

(1) A low-pressure fire extinguisher must have a fire extinguisher registration number issued under subclause (2).

(2) A product certification body may issue a fire extinguisher registration number for a low-pressure fire extinguisher if it is satisfied that the fire extinguisher—

(a) has been manufactured in accordance with this Part; and

(b) meets the quality assurance requirements specified in the fire extinguisher's design.

Regulation 23B: inserted, on 1 November 2012, by regulation 18 of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

23C Standards for low-pressure fire extinguishers

The design for a low-pressure fire extinguisher must comply with—

(a) AS/NZS 1841.1–AS/NZS 1841.8; or

(b) an existing design standard under regulation 5; or

(c) a code of practice approved by the Authority under section 79 of the Act relating to fire extinguisher safety that specifies requirements equivalent to the requirements of a standard referred to in paragraph (a) or (b).

Regulation 23C: inserted, on 1 November 2012, by regulation 18 of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

23D Manufacture of low-pressure fire extinguishers

A person who manufactures a low-pressure fire extinguisher must—

(a) manufacture the fire extinguisher to a design that complies with a design standard referred to in regulation 23C; and

(b) ensure that the low-pressure fire extinguisher complies with Part 6.

Regulation 23D: inserted, on 1 November 2012, by regulation 18 of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

23E Savings provision for existing low-pressure fire extinguishers

A low-pressure fire extinguisher that complied with Part 2 before 1 November 2012 is deemed to comply with this Part.

Regulation 23E: inserted, on 1 November 2012, by regulation 18 of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

Part 3
Aerosols

24 Restrictions on import, manufacture, and supply of aerosols

A person must not import, manufacture, or supply an aerosol dispenser unless—

(a) the aerosol dispenser complies with, at the time of manufacture,—

(i) AS 2278.1–2008; or

(ii) an existing design standard under regulation 5; or

(iii) a code of practice approved by the Authority under section 79 of the Act relating to aerosol dispensers that specifies requirements

equivalent to the requirements of the standard referred to in subparagraph (i); and

(b) the liquid and solid contents of the aerosol dispenser when charged do not occupy more than 90% of the internal volume of the closed aerosol container at 50°C; and

(c) the aerosol dispenser has been tested and examined for leakage, deformation or other defect in accordance with the standard.

Regulation 24(a)(i): amended, on 1 November 2012, by regulation 19 of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

Part 4
Non-refillable containers

25 Restrictions on import, manufacture, and supply of non-refillable containers

A person must not import, manufacture, or supply a non-refillable container unless—

(a) the non-refillable container complies with, at the time of manufacture,—

(i) an existing design standard under regulation 5; or

(ii) a code of practice approved by the Authority under section 79 of the Act relating to non-refillable containers that specifies requirements equivalent to the requirements specified in subparagraph (i); and

(b) when the non-refillable container is charged with gas, the maximum developed pressure at 50°C is not more than that specified in the design to which the non-refillable container was manufactured; and

(c) the filled non-refillable container has been tested and examined for leakage, deformation, or other defect in accordance with the standard to which it was designed.

Part 5
Cylinder fittings

26 Restriction on import, manufacture, or supply of cylinder fittings

A person must not import, manufacture, or supply a cylinder fitting unless the fitting is manufactured and tested at the time of manufacture in accordance with this Part.

27 Cylinder valves

(1) A cylinder valve on an LPG cylinder that has water capacity of between 10 to 27 litres must be manufactured and tested at the time of manufacture in accordance with—

(a) AS 2473.1–2006; or

(b) AS 2473.2–2007; or

(c) BS 1552; or

(d) UL 125–2009; or

(e) UL 2061; or

(f) an existing design standard under regulation 5; or

(g) a code of practice approved by the Authority under section 79 of the Act relating to valve safety that specifies requirements equivalent to the requirements of a standard referred to in any of paragraphs (a) to (f).

(2) A cylinder valve other than a valve to which subclause (1) applies must be manufactured and tested at the time of manufacture in accordance with—

(a) AS 2473.1–2006; or

(b) AS 2473.2–2007; or

(c) AS 2473.3–2007; or

(d) BS 341; or

(e) UL 2061; or

(f) an existing design standard under regulation 5; or

(g) a code of practice approved by the Authority under section 79 of the Act relating to valve safety that specifies requirements equivalent to the requirements of a standard referred to in any of paragraphs (a) to (f).

(3) Despite subclauses (1) and (2), valve stem threads must comply with the requirements for cylinder neck threads in regulation 12.

Regulation 27: replaced, on 1 November 2012, by regulation 20 of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

28 Outlet connection for cylinder valves

(1) The outlet connection for a cylinder valve, other than the outlet connection for an LPG cylinder, must comply with—

(a) section 5.1 of AS 2030.5–2009; or

(b) an existing design standard under regulation 5; or

(c) a code of practice approved by the Authority under section 79 of the Act relating to valve outlet safety that specifies requirements equivalent to the requirements of a standard referred to in paragraph (a) or paragraph (b).

(2) The outlet connection for an LPG cylinder valve must comply with,—

(a) for an LPG cylinder of less than 25 litres water capacity,—

(i) UL 2061; or

(ii) 14 mm × 1.5 mm RH Internal (14 mm ISO metric); or

(iii) 3/8 BSP RH Internal; or

(iv) 3/8 BSP RH External; or

(v) 20 mm clip-on connector; or

(b) for an LPG cylinder valve design of any size, 0.885–14 NGO LH Internal; or

(c) an existing design standard under regulation 5; or

(d) a code of practice approved by the Authority under section 79 of the Act relating to the valve outlet safety for LPG cylinders that specifies requirements equivalent to the requirements of a standard referred to in any of paragraphs (a) to (c).

(3) The outlet connection for cylinders that are a part of the motive power of a forklift, but are not permanently attached or integral to the forklift, must comply with—

(a) 1–1/4–RH External; or

(b) an existing design standard under regulation 5; or

(c) a code of practice approved by the Authority under section 79 of the Act as being an equivalent level of valve outlet safety that specifies requirements equivalent to the requirements of a standard referred to in paragraph (a) or paragraph (b).

(4) Any new connection into a valve outlet must be compatible with the valve.

Regulation 28(1)(a): replaced, on 1 November 2012, by regulation 21 of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

Regulation 28(2)(a)(v): substituted, on 23 September 2004, by regulation 12 of the Hazardous Substances (Compressed Gases) Amendment Regulations 2004 (SR 2004/255).

29 Cylinder valve design for particular gases

(1) A valve incorporated in a cylinder for flammable or class 6.1A to 6.1D gases must be protected in accordance with—

(a) section 5.2 of AS 2030.5–2009; or

(b) an existing design standard under regulation 5; or

(c) a code of practice approved by the Authority under section 79 of the Act relating to valve protection safety that specifies requirements equivalent to the requirements of a standard referred to in paragraph (a) or paragraph (b).

(2) The valve incorporated in a cylinder design for gas other than flammable or class 6.1A to 6.1D, must comply with the impact tests in—

(a) BS 341 and AS 2473.1–2006; or

(ab) BS 341 and AS 2473.2–2007; or

(b) for fire extinguisher cylinder designs, AS/NZS 1841.1; or

(c) an existing design standard under regulation 5; or

(d) a code of practice approved by the Authority under section 79 of the Act relating to valve safety that specifies requirements equivalent to the requirements of a standard referred to in any of paragraphs (a) to (c).

Regulation 29(1)(a): replaced, on 1 November 2012, by regulation 22(1) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

Regulation 29(2)(a): replaced, on 1 November 2012, by regulation 22(2) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

Regulation 29(2)(ab): inserted, on 1 November 2012, by regulation 22(2) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

30 Cylinder over-pressure protection for particular gases

(1) A cylinder design except for a cylinder designed to contain a class 6.1, 6.1A, 6.1B, or 6.1C toxic substance, must incorporate over-pressure protection that complies with—

(a) section 5.3 of AS 2030.5–2009; or

(b) an existing design standard under regulation 5; or

(c) a code of practice approved by the Authority under section 79 of the Act relating to over-pressure protection safety that specifies requirements equivalent to the requirements of a standard referred to in paragraph (a) or paragraph (b).

(2) A fire extinguisher cylinder design must, at pressures greater than 19 MPa, comply with—

(a) section 5.3 of AS 2030.5–2009; or

(b) an existing design standard under regulation 5; or

(c) a code or practice approved by the Authority under section 79 of the Act relating to over-pressure protection safety that specifies requirements equivalent to the requirements of a standard referred to in paragraph (a) or paragraph (b).

Regulation 30(1)(a): replaced, on 1 November 2012, by regulation 23(1) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

Regulation 30(2)(a): replaced, on 1 November 2012, by regulation 23(2) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

31 Regulators

A regulator, other than an LPG regulator or an LPG automatic changeover device, must comply with—

(a) AS 3840.1–1998; or

(b) AS 4267; or

(c) an existing design standard under regulation 5; or

(d) a code of practice approved by the Authority under section 79 of the Act relating to regulator safety that specifies requirements equivalent to the requirements of a standard referred to in any of paragraphs (a) to (c).

Regulation 31(a): replaced, on 1 November 2012, by regulation 24 of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

32 LPG regulator or LPG automatic changeover device

(1) An LPG regulator or LPG automatic changeover device must comply with—

(a) AS 4621–2004; or

(b) UL 144–2012; or

(c) UL 252; or

(d) an existing design standard under regulation 5; or

(e) a code of practice approved by the Authority under section 79 of the Act relating to LPG regulator or automatic changeover device safety that specifies requirements equivalent to the requirements of a standard referred to in any of paragraphs (a) to (d).

(2) The valve inlet connection of an LPG regulator must comply with the dimension requirements of—

(a) AS 2473.2–2007; or

(b) CGA V–1 (2005).

Regulation 32: replaced, on 1 November 2012, by regulation 25 of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

33 Overfill protection device for LPG cylinders

An LPG cylinder that has a nominal capacity greater than 4 kg and less than 11 kg must be fitted with an overfill protection device designed in accordance with—

(a) UL 2227; or

(b) an existing design standard under regulation 5; or

(c) a code of practice approved by the Authority under section 79 of the Act relating to overfill protection device safety that specifies requirements equivalent to the requirements of a standard referred to in paragraph (a) or paragraph (b).

34 LPG valve outlet adaptors

(1) If an LPG cylinder valve is fitted with an adaptor on the valve outlet thread, the outlet connection of the adaptor is deemed to be the outlet connection of the valve, if—

(a) the adaptor is permanently fitted to the valve according to the manufacturer's installation instructions; and

(b) the adaptor outlet connection complies with regulation 28, except that a clip on adaptor is not to be connected to a QCC valve; and

(c) the adaptor complies with—

(i) the Department of Labour standard for clip on adaptors based on LPGITA Code of Practice No. 15 Part 1:1992; or

(ii) an existing design standard under regulation 5; or

(iii) a code of practice approved by the Authority under section 79 of the Act relating to adaptor connection system safety that specifies requirements equivalent to the requirements of a standard referred to in subparagraph (i) or subparagraph (ii).

(2) If an LPG cylinder valve adaptor is designed after the commencement of these regulations, and the pressure and cycling tests are not specified in the standard to which the LPG cylinder was designed, then samples must be taken and inspected and tested—

(a) as follows:

(i) to a pressure test at 1.5 times the design operating pressure; and

(ii) if the adaptor is to have moving parts, by cycling tests for a number of cycles at least equivalent to those tests required in the standard for the valve that it is to be attached to; or

(b) to a code of practice approved by the Authority under section 79 of the Act relating to adaptor safety.

35 Restrictions on imported LPG fittings

A person must not import 1 or more fittings for LPG cylinders of a design that has not previously been imported into New Zealand, or manufactured by a manufacturer that has not previously supplied those fittings for import into New Zealand, unless in relation to the fittings—

(a) there is in force a test certificate issued under regulation 36; or

(b) the requirement for a test certificate has been waived and a special register number issued in accordance with regulation 38.

Regulation 35(a): amended, on 1 November 2012, by regulation 26(1) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

Regulation 35(b): amended, on 1 November 2012, by regulation 26(2) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

36 Test certificate for imported fittings

(1) A person who wishes to import or manufacture fittings for LPG cylinders must apply to a test certifier for a test certificate for the fittings.

(2) An application under subclause (1) must—

(a) include a copy of the test report on the fitting from a recognised inspection agency; and

(b) be accompanied by a sample of each batch of the LPG fittings to which the application relates.

(3) The test certifier may give a test certificate for a batch of LPG fittings if satisfied that—

(a) the information marked on the fittings complies with Part 6; and

(b) the test report of the recognised inspection agency shows that the fitting meets the requirements set out in the design to which the fitting was manufactured; and

(c) the fittings meet the requirements in regulations 27 to 33 that apply to that type of fitting.

(4) If the test certifier gives a test certificate for a batch of fittings, the test certifier must provide to the Authority—

(a) a copy of the test certificate; and

(b) a copy of the test report of the recognised inspection agency supplied under subclause (3)(b) in relation to the fitting.

(5) On receiving the information required under subclause (4), the Authority must—

(a) allocate a register number to the cylinder fittings; and

(b) enter the details of the cylinder fittings on the register kept under regulation 77.

Regulation 36 heading: amended, on 23 September 2004, by regulation 13(1) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2004 (SR 2004/255).

Regulation 36(1): substituted, on 23 September 2004, by regulation 13(2) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2004 (SR 2004/255).

Regulation 36(3): amended, on 23 September 2004, by regulation 13(3)(a) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2004 (SR 2004/255).

Regulation 36(3): amended, on 23 September 2004, by regulation 13(3)(b) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2004 (SR 2004/255).

Regulation 36(4): amended, on 23 September 2004, by regulation 13(3)(a) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2004 (SR 2004/255).

Regulation 36(4): amended, on 23 September 2004, by regulation 13(3)(c) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2004 (SR 2004/255).

Regulation 36(4)(a): amended, on 23 September 2004, by regulation 13(3)(d) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2004 (SR 2004/255).

37 Failure to give clearance to imported fitting

If a test certifier fails to give a test certificate under regulation 36, the test certifier must—

(a) either—

(i) allow all fittings in that batch to be brought into compliance, if the test certifier considers this is possible; or

(ii) oversee the disposal of every fitting by—

(A) physically altering each fitting so that the fitting is unable to be used, or be returned to a state in which it could be used, with any cylinder containing compressed gas; or

(B) being satisfied that every fitting has been returned to the country of origin; and

(b) provide a report to the Authority setting out how the requirements of this regulation have been met.

Regulation 37: amended, on 23 September 2004, by regulation 14(a) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2004 (SR 2004/255).

Regulation 37: amended, on 23 September 2004, by regulation 14(b) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2004 (SR 2004/255).

Regulation 37: amended, on 23 September 2004, by regulation 14(c) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2004 (SR 2004/255).

Regulation 37(a)(i): amended, on 23 September 2004, by regulation 14(c) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2004 (SR 2004/255).

38 Waiver of clearance of imported fittings

(1) The Authority may, in any particular case, waive the requirements of regulation 36 on an application made in the approved form.

(2) In considering whether or not to grant a waiver, the Authority must have regard to—

(a) the types and quantities of fittings to which the application relates; and

(b) the compliance and quality control history of the manufacturer of the fittings to which the application relates; and

(c) the similarity of the design and manufacture of the fittings to the design and manufacture of other fittings previously supplied by that manufacturer.

(3) If the Authority waives the requirements of regulation 36 in relation to a design of a fitting, the Authority must—

(a) allocate a special register number to the design; and

(b) enter the details of the special register number on the register kept under regulation 78.

Part 6
Labelling and marking

Marking of cylinders and fire extinguishers

39 Markings for cylinders and fire extinguishers

(1) A refillable cylinder and a fire extinguisher (whether refillable or not) must be marked with the following information:

(a) the register number of the cylinder design to which the cylinder or fire extinguisher was manufactured:

(b) the manufacturer's serial or batch number for the cylinder or fire extinguisher.

(2) A refillable cylinder must be marked with the following information:

(a) the name or mark of the manufacturer of the cylinder:

(b) the test pressure specified in the standard to which the cylinder was designed:

(c) if the refillable cylinder will contain permanent gas, the charging pressure, at 15°C, of the refillable cylinder:

(d) the water capacity of the refillable cylinder:

(e) the weight of the refillable cylinder when empty, excluding the cylinder's valve and any attachment to the cylinder that is not permanent:

(f) if the gas is a liquefied gas, the weight of the refillable cylinder, including the valve but not the valve cover (if any):

(g) the month and year that the refillable cylinder was manufactured:

(h) the mark of the recognised inspection agency that issued the manufacturing certificate under regulation 16 in respect of the refillable cylinder:

(i) the month and year of each periodic test conducted in accordance with regulation 52 (if any):

(j) the mark of the periodic tester who conducted the periodic test.

(3) A fire extinguisher must be marked with a fire extinguisher registration number issued by a product certification body.

(4) Subclause (1)(a) does not apply to a fire extinguisher unless the fire extinguisher contains a permanent gas or a liquefied gas.

Regulation 39(2)(f): amended, on 1 November 2012, by regulation 27(1) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

Regulation 39(2)(f): amended, on 23 September 2004, by regulation 15 of the Hazardous Substances (Compressed Gases) Amendment Regulations 2004 (SR 2004/255).

Regulation 39(4): amended, on 1 November 2012, by regulation 27(2) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

40 Additional markings for cylinders containing dry gas

A cylinder that may or will be used to contain dry gas must be marked with a 5 pointed star.

41 Additional markings for cylinders containing toxic gas

A cylinder that may or will be used to contain a toxic gas of class 6.1A or 6.1B must be marked with a skull mark.

42 Compliance with the Hazardous Substances (Identification) Regulations 2001

(1) The information marked in accordance with regulations 39 to 41 must comply with regulation 35 of the Hazardous Substances (Identification) Regulations 2001.

(2) The information marked on a cylinder must be permanently marked but not so as to weaken the design strength of the cylinder.

Marking of cylinder fittings

43 Tampering with markings on cylinder fittings

A person must not tamper with a mark on a cylinder fitting.

44 Cylinder valve markings

A cylinder valve must have the following markings:

(a) the valve open and closed positions:

(b) the manufacture's mark or identifier:

(c) the design standard to which the valve was manufactured:

(d) the batch number:

(e) the operating pressure for the pressure relief device:

(f) the date of manufacture or a code in the batch number that links to a date of manufacture.

45 Cylinder regulator markings

A regulator must have the following markings:

(a) the manufacturer's mark or identifier:

(b) the design standard to which the regulator was manufactured:

(c) the manufacturer's batch number:

(d) the date of manufacture of the regulator or a code in the batch number that links to the date of manufacture:

(e) information identifying the gas or gases for which the regulator is intended to be used.

Regulation 45(e): amended, on 23 September 2004, by regulation 16 of the Hazardous Substances (Compressed Gases) Amendment Regulations 2004 (SR 2004/255).

46 Cylinder adaptor markings

A cylinder adaptor must have the following markings:

(a) the manufacturer's mark or identifier:

(b) the date of manufacture of the cylinder adaptor:

(c) the connection compatibilities of the cylinder adaptor.

47 Markings for automatic changeover devices for LPG

An automatic changeover device must have the following markings:

(a) the manufacturer's mark or identifier:

(b) the design standard to which the device was manufactured:

(c) either—

(i) the manufacturer's batch number; or

(ii) the date of manufacture of the device, or a code in the batch number that links to the date of manufacture.

(d) *[Revoked]*

Regulation 47(c): substituted, on 23 September 2004, by regulation 17 of the Hazardous Substances (Compressed Gases) Amendment Regulations 2004 (SR 2004/255).

Regulation 47(d): revoked, on 23 September 2004, by regulation 17 of the Hazardous Substances (Compressed Gases) Amendment Regulations 2004 (SR 2004/255).

48 Marking of fittings

(1) The marking of fittings in accordance with regulations 44 to 47 must comply with regulation 35 of the Hazardous Substances (Identification) Regulations 2001.

(2) The information marked on a fitting must be permanently marked but not so as to weaken the design strength of the fitting.

49 Marking of aerosols

(1) An aerosol dispenser must be—

(a) marked with a batch identifier; and

(b) able to be traced (through markings or documentation) to the manufacturer of the empty aerosol dispenser.

(2) An aerosol dispenser must be marked with the following information according to the requirements for comprehensibility, clarity, and durability in regulations 34 to 36 of the Hazardous Substances (Identification) Regulations 2001:

(a) a warning that the contents are under pressure:

(b) a warning not to expose the aerosol dispenser to heat and not to pierce or burn it, even after use.

50 Marking of non-refillable containers

(1) A filled non-refillable container must be—

(a) marked with a batch identifier; and

(b) able to be traced (through markings or documentation) to the manufacturer of the empty non-refillable cylinder.

(2) A filled non-refillable container must be marked with the following information according to the requirements for comprehensibility, clarity, and durability

in regulations 34 to 36 of the Hazardous Substances (Identification) Regulations 2001:

(a) a warning that the contents are under pressure, except that this paragraph does not apply to non-refillable containers that are fire extinguishers:

(b) a warning not to expose the cylinder to heat and not to pierce (other than intended piercing for use) or burn it, even after use.

Part 7
Testing of cylinders and fittings

51 Cylinder not to be used beyond specified cylinder life

A person must not use a cylinder beyond the maximum life of the cylinder specified in the standard to which the cylinder was designed.

Regulation 51: substituted, on 23 September 2004, by regulation 18 of the Hazardous Substances (Compressed Gases) Amendment Regulations 2004 (SR 2004/255).

52 Periodic tests and certificates

(1) A person must not charge a cylinder unless the cylinder has passed the tests in subclause (3), or referred to in regulation 5A(3), at the intervals following manufacture specified in the following table:

Type of cylinder	Interval (years)
Cylinder for liquefied petroleum gas	10
Cylinder not designed or used for underwater use, other than fibre wrapped composite cylinder	5
Fibre wrapped composite cylinder	3
Fire extinguisher	5
Cylinder with shrunk-on foot rings	2
Cylinder for any of the following gases:	
argon, cyclopropane, ethylene, helium, hydrogen, krypton, neon, nitrogen, nitrous oxide, xenon, and mixtures of them containing not more than 30% by volume of carbon dioxide.	10 up to 40 years of age, then 5-year intervals
Cylinder for acetylene:	
monolithic mass (visual inspection)	At 1 year after entering service, then 10-year intervals
other porous mass (visual inspection)	1
All other cylinders	5

(2) The Authority may, by notice in the *Gazette*, alter a testing interval specified in subclause (1) in any particular case if the Authority is satisfied that the testing interval as varied will provide for an equivalent level of safety as the testing intervals for other types of cylinders in the table.

(3) A periodic tester must issue a periodic certificate for a cylinder if the cylinder passes the visual inspections and tests specified in—

(a) the standard to which the cylinder was designed; or

(b) AS 2337.1; or

(c) for acetylene dissolved in solvent, AS 2030.2; or

(d) a code of practice approved by the Authority under section 79 of the Act that specifies requirements equivalent to the requirements of a standard referred to in paragraph (b) or paragraph (c).

Regulation 52 heading: amended, on 1 November 2012, by regulation 28(1) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

Regulation 52(1): amended, on 1 November 2012, by regulation 28(2) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

Regulation 52(1) table: amended, on 23 September 2004, by regulation 19(1) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2004 (SR 2004/255).

Regulation 52(2): amended, on 23 September 2004, by regulation 19(2) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2004 (SR 2004/255).

53 Requirements of periodic tester

(1) A periodic tester must—

(a) keep records for all testing in accordance with the requirements in AS 2337.1 and retain those records for a period of not less than the relevant periodic inspection interval specified in regulation 52(1) plus 1 year; and

(b) if a cylinder passes the inspections and tests specified in regulation 52(3)—

(i) issue a periodic certificate; and

(ii) mark the cylinder in accordance with Part 6; and

(c) if a cylinder fails any of the inspections or tests specified in regulation 52(3),—

(i) decline to issue a periodic certificate; and

(ii) provide the owner of the cylinder with a copy of the test report stating the reasons for the failure.

(2) If a cylinder fails an inspection or test specified in regulation 52(3) due to reasons other than neck thread inserts or re-machining or markings being obliterated, the owner may have the cylinder retested under the supervision of an enforcement officer.

(3) If a cylinder fails an inspection or test specified in regulation 52(3) the owner may have the cylinder repaired if repair is provided for in the design to which the cylinder was manufactured and have the cylinder retested.

(4) If a cylinder has failed an inspection or test specified in regulation 52(3), a periodic tester must not allow a person to remove the cylinder from the periodic tester's premises except with the consent of an enforcement officer.

(5) Subclause (4) does not apply if the periodic tester, with the owner's permission or, if 30 or more days have elapsed since the cylinder fails the inspection or

test, without the owner's permission, alters or oversees the alteration of the cylinder so that it is—

(a) not able to contain compressed gas; and

(b) not able to be returned to a state in which it could contain compressed gas.

54 Consequences of test failure

(1) If a cylinder fails a periodic test due to a deficiency in the design, or in the manufacture of the design, the Authority may—

(a) suspend the design verification certificate and register number; and

(b) request a test certifier to review the relevant design verification certificate.

(2) If the result of a review under subclause (1)(b) is that the design of the cylinder is not adequate to ensure that cylinders manufactured to it are safe during the expected lifetime of the cylinder, the Authority may—

(a) cancel the design verification certificate and register number for the design; and

(b) recall all cylinders manufactured to that design for destruction.

55 Periodic testing of LPG valve and pressure relief device

(1) A person must not charge a compressed gas cylinder with LPG unless the valve and pressure relief device has passed the tests in subclause (2).

(2) A periodic test for a LPG valve and pressure relief device must be carried out by a periodic tester who must—

(a) inspect the valve for wear or damage; and

(b) inspect the pressure relief device for—

(i) wear and damage:

(ii) corrosion:

(iii) evidence of leakage:

(iv) evidence of blockage; and

(ba) ensure that the pressure relief device is correctly fitted; and

(c) ensure that the valve is free from leaks.

(3) A periodic test must be undertaken—

(a) within 10 years after the manufacture of the compressed gas cylinder; and

(b) thereafter at intervals of not greater than 10 years.

Regulation 55(1): amended, on 23 September 2004, by regulation 20 of the Hazardous Substances (Compressed Gases) Amendment Regulations 2004 (SR 2004/255).

Regulation 55(2)(b): replaced, on 1 November 2012, by regulation 29 of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

Regulation 55(2)(ba): inserted, on 1 November 2012, by regulation 29 of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

Part 8
Charging compressed gas cylinders and compressed gas stationary tanks

56 Restrictions on charging cylinders

(1) A person must not charge a cylinder with gas unless the person is satisfied that—

(a) if the cylinder has a water capacity of less than 500 litres, the cylinder is marked in accordance with—

(i) Part 6; or

(ii) clause 6.2.2.7 of Chapter 6.2 of UNRTDG; and

(b) the period since the last periodic inspection specified in regulation 52 relating to the type of cylinder has not expired; and

(c) the maximum life specified in the standard to which the cylinder was designed has not expired; and

(d) *[Revoked]*

(e) there is no evidence of damage or corrosion of the cylinder and valve that indicates that the cylinder may fail a periodic test or that the cylinder's associated fittings may leak; and

(f) an over-pressure protection device fitted in accordance with regulation 30 is free of any sign of corrosion, has a clear discharge channel, shows no sign of leakage.

(2) *[Revoked]*

Regulation 56(1)(a): replaced, on 1 November 2012, by regulation 30(1) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

Regulation 56(1)(b): amended, on 23 September 2004, by regulation 21(a) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2004 (SR 2004/255).

Regulation 56(1)(d): revoked, on 23 September 2004, by regulation 21(b) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2004 (SR 2004/255).

Regulation 56(1)(f): amended, on 1 November 2012, by regulation 30(2) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

Regulation 56(2): revoked, on 1 November 2012, by regulation 30(3) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

57 Restriction on charging aerosol dispensers

(1) A person must not charge an aerosol dispenser with a gas of class 6.1A or 6.1B to an LC50 less than or equal to 200 parts per million.

(2) Subclause (1) does not apply to aerosols with a brimful capacity 100 millilitres or less and an internal gauge pressure at 20C of less than 170 kPa.

58 Restriction on charging non-refillable containers with certain gases

A person must not charge a non-refillable container with a gas of class 6.1A or 6.1B to an LC50 less than or equal to 200 parts per million.

59 Restriction on persons able to charge compressed gas containers

(1) A person must not charge a compressed gas container with compressed gas unless—

(a) the person is an approved filler; or

(b) the person—

(i) is undertaking a course of instruction or other training to become an approved filler; and

(ii) is supervised at all times while charging the cylinder by an approved filler.

(2) Subclause (1) does not apply to a person who fills a portable resuscitation cylinder.

Regulation 59(1): replaced, on 1 November 2012, by regulation 31 of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

60 Approval of fillers

(1) An approved filler must hold an approved filler certificate issued by a test certifier who is approved to certify the competence of approved fillers.

(2) A test certifier must not issue an approved filler certificate to a person unless satisfied that the person—

(a) knows and can describe, in relation to the types of gases and containers he or she will be approving to charge, the following:

(i) the different forms of compressed gases, being:

(A) low pressure liquefied gas:

(B) high pressure liquefied gas:

(C) permanent gas:

(D) gas that may be held at cryogenic temperatures:

(ii) the factors that can trigger failure of a compressed gas container:

(iii) the potential adverse effects from failure of a container associated with the different forms of compressed gas including asphyxiation:

(iv) the requirements in these regulations, or in a code of practice approved by the Authority under section 79 of the Act, for visual in-

spection and safe charging of compressed gas into a container; and

(b) can demonstrate the procedures for safe filling of compressed gas containers.

(3) A test certifier must issue a test certificate to an approved filler on receiving a written record that satisfies the certifier as to the matters in subclause (2), which record must—

(a) be signed by the provider of the course of instruction or work supervisor; and

(b) describe the method used to assess the knowledge and practical skills of the person wishing to become an approved filler; and

(c) state the results of the assessment.

(4) An approved filler certificate must specify the forms and classes of gases and types of containers covered by the certificate.

Regulation 60(2)(a)(i)(A): amended, on 1 November 2012, by regulation 32 of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

Regulation 60(2)(a)(i)(B): amended, on 1 November 2012, by regulation 32 of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

61 Maximum filling ratio for cylinders and compressed gas stationary tanks

(1) The maximum filling ratio for a cylinder or a compressed gas stationary tank to be charged with low pressure liquefied gases must be such that the liquid phase of gas in the cylinder or compressed gas stationary tank—

(a) will not exceed 97% of the water capacity of the cylinder or compressed gas stationary tank under temperatures during storage; and

(b) will not fill the cylinder or compressed gas stationary tank when the temperature is raised to the following temperatures:

Water capacity of cylinder or compressed gas stationary tank (litres)	Temperature of liquid contents (°C)
Not exceeding 250	50.0
Exceeding 250 but not exceeding 5 000	47.5
Exceeding 5 000	45.0

(2) The maximum filling ratio for cylinders and compressed gas stationary tanks to be filled with high pressure liquefied gases must be such that—

(a) the liquid phase of the gas in the cylinder or compressed gas stationary tank will not exceed 97% of the water capacity of the cylinder or compressed gas stationary tank under temperatures during storage; and

(b) the pressure at the temperatures in the following table will not exceed the maximum developed pressure by more than 20%:

Water capacity of cylinder or compressed gas stationary tank (litres)	Temperature of liquid contents (°C)
Not exceeding 1 000	60.0

Water capacity of cylinder or compressed gas stationary tank (litres)	Temperature of liquid contents (°C)
Exceeding 1 000 but not exceeding 5 000	57.5
Exceeding 5 000	52.5

Regulation 61(1): amended, on 1 November 2012, by regulation 33(1) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

Regulation 61(1) table: substituted, on 23 September 2004, by regulation 23(1) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2004 (SR 2004/255).

Regulation 61(2): amended, on 1 November 2012, by regulation 33(1) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

Regulation 61(2)(b): amended, on 23 September 2004, by regulation 23(2)(a) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2004 (SR 2004/255).

Regulation 61(2)(b): amended, on 23 September 2004, by regulation 23(2)(b) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2004 (SR 2004/255).

Regulation 61(2)(b) table: amended, on 1 November 2012, by regulation 33(2)(a) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

Regulation 61(2)(b) table: amended, on 1 November 2012, by regulation 33(2)(b) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

Regulation 61(2)(b) table: amended, on 1 November 2012, by regulation 33(2)(c) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

61A Air in self-contained breathing apparatus

A person who fills a self-contained breathing apparatus, including a self-contained underwater breathing apparatus, must ensure that the cylinder is filled only with air that meets the requirements of Australian/New Zealand standard AS/NZS 2299.1:2007 *Occupational diving operations—Standard operational practice*.

Regulation 61A: inserted, on 1 November 2012, by regulation 34 of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

62 Charging cylinders and compressed gas stationary tanks with liquid gases

(1) The extent to which a cylinder or compressed gas stationary tank is charged with compressed gas in a liquid form must be determined by the weight of gas to meet the applicable filling ratio specified in regulation 61.

(2) The weight of a charged cylinder or compressed gas stationary tank must be checked after disconnecting the cylinder or compressed gas stationary tank from the charging line.

(3) However, subclause (2) does not apply to a compressed gas stationary tank if the compressed gas stationary tank is charged by ullage or contents gauges according to section 7.3.2 of AS 2030.5–2009.

(4) Subclause (2) does not apply to any of the following cylinders if the cylinder is filled by ullage or contents gauges according to section 7.3.2 of AS 2030.5–2009:

(a) cylinders permanently mounted on a vehicle, but not used for the vehicle's motive power:

(b) cylinders clamped but not permanently mounted on a vehicle, and used for the vehicle's motive power:

(c) a cylinder or compressed gas stationary tank operating under a code of practice approved by the Authority under section 79 of the Act relating to cylinder filling.

(5) A cylinder of less than 4 kg (nominal capacity) that is not of a type specified in subclause (4) may be filled by decant pressure differential on scales using a dip tube or ullage tube.

Regulation 62(3): amended, on 1 November 2012, by regulation 35 of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

Regulation 62(4): amended, on 1 November 2012, by regulation 35 of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

63 Charging cryogenic containers

(1) *[Revoked]*

(2) The quantity of liquefied gas charged into a cryogenic container of up to 500 litres must be such that—

(a) the liquid contents do not occupy more than 85% of the volume of the container; and

(b) the pressure of the contents when the container is closed—

(i) does not cause the design limits for the cylinder materials in relation to wall stress, yield stress, or tensile strength to be exceeded; and

(ii) does not exceed 50% of the test pressure; and

(iii) does not exceed the maximum developed pressure for withdrawal of the gas.

(3) The extent to which a cryogenic container of 500 litres or greater is charged must be determined by volume with a fixed level measuring device.

(4) The quantity of liquefied gas charged into a cryogenic container of 500 litres or greater must be such that the liquid contents do not occupy more than 95% of the volume of the container at the standard working pressure of the container.

Regulation 63(1): revoked, on 23 September 2004, by regulation 24 of the Hazardous Substances (Compressed Gases) Amendment Regulations 2004 (SR 2004/255).

64 Developed pressure for permanent gases

The pressure developed by a permanent gas in a cylinder or compressed gas stationary tank—

(a) must comply with the developed pressure requirements contained in the standard to which the cylinder or compressed gas stationary tank was designed; or

(b) must not, at 65°C, exceed 85% of the test pressure specified in the standard to which the cylinder or compressed gas stationary tank was designed.

Regulation 64: replaced, on 1 November 2012, by regulation 36 of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

65 Restriction on cylinders previously used for class 6.1 gases

Cylinders that are being or have been used for class 6.1 gases with an inhalation toxicity must not be used to contain gases for human respiration or for products for human consumption.

66 Refilling a cylinder

(1) A person must not charge a cylinder with a gas (the **new gas**) that is different from the gas that the cylinder previously contained (the **original gas**) unless the new gas is provided for in the design to which the cylinder was manufactured, and—

(a) either—

(i) the new gas is compatible with the original gas contents; or

(ii) the original gas contents are rendered safe or removed from the cylinder by treating the cylinder in the manner described in the applicable design in accordance with—

(A) section 8 of AS 2030.5–2009; or

(B) a code of practice for change of gas contents approved by the Authority under section 79 of the Act relating to refilling cylinders that specifies requirements that are equivalent to the requirements of the standard referred to in subsubparagraph (A); and

(b) the person makes the necessary consequential changes to identification and testing specific to the new gas.

(2) In subclause (1), **compatible** means that the new gas—

(a) is chemically inert if brought into contact with—

(i) the original gas for the range of temperatures and pressures to which the mixture is exposed during its life cycle; and

(ii) residues from sources encountered during the life of the cylinder; or

(b) if it is chemically reactive when brought into contact with the original gas, will not—

(i) cause combustion; or

(ii) cause an explosion; or

(iii) produce a hazardous substance with a classification under the Hazardous Substances (Classification) Regulations 2001 that is different from the classification of the new gas.

Regulation 66(1)(a)(ii)(A): replaced, on 1 November 2012, by regulation 37 of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

67 Charging a cylinder or tank with carbon dioxide

A person must not charge carbon dioxide, other than a mixture of carbon dioxide and other gases, into a cylinder or a compressed gas stationary tank unless the carbon dioxide is not less than 99% pure (vol/vol).

Part 8A
Repair of cylinders

Part 8A: inserted, on 1 November 2012, by regulation 38 of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

67A Repair of cylinders

A person who repairs a cylinder must—

(a) repair the cylinder in accordance with the procedure specified in the standard applying to the design to which the cylinder was manufactured; and

(b) obtain a manufacturing certificate from a recognised inspection agency confirming that the repair has been carried out in accordance with the cylinder's design and meets the quality assurance requirements specified in the design standard.

Regulation 67A: inserted, on 1 November 2012, by regulation 38 of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

Part 9
Emergency management

68 Application of this Part

(1) This Part applies to a place if there is held in that place, or is reasonably likely to be held in it on any occasion, a total quantity of compressed gas greater than—

(a) in the case of permanent gas, 900 m^3, determined at a pressure of 101.3 kPa absolute and a temperature of 15°C; or

(b) in the case of liquefied gas, 1 500 kg.

(2) This Part does not apply to a place to which Part 4 of the Hazardous Substances (Emergency Management) Regulations 2001 applies if the requirements of those regulations are complied with.

Regulation 68(1)(a): amended, on 1 November 2012, by regulation 39(1) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

Regulation 68(1)(a): amended, on 23 September 2004, by regulation 26(a) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2004 (SR 2004/255).

Regulation 68(1)(b): amended, on 23 September 2004, by regulation 26(b) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2004 (SR 2004/255).

Regulation 68(2): inserted, on 1 November 2012, by regulation 39(2) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

69 Emergency response planning

The person in charge of a place to which this Part applies must have an emergency response plan relating to any compressed gases—

(a) present at the place; or

(b) reasonably likely to be held in it; or

(c) reasonably likely to be held in it on occasion.

70 Content of emergency response plan

(1) An emergency response plan must describe all of the reasonably likely emergencies that may arise from the breach or failure of controls on compressed gases to which it relates.

(2) An emergency response plan must, for each reasonably likely emergency,—

(a) describe the actions to be taken to—

(i) warn people at the place, and in surrounding areas that may be adversely affected by the emergency, that an emergency has occurred; and

(ii) advise those people about the actions they should take to protect themselves; and

(iii) help or treat any person injured in the emergency; and

(iv) manage the emergency so that its adverse effects are first restricted to the area initially affected, then, as soon as practicable, reduced in severity, then, if reasonably possible, eliminated; and

(v) if any of the compressed gas concerned remains, re-establish the controls imposed on it when it was approved; and

(b) identify every person with responsibility for undertaking any of the actions described in paragraph (a) (or any part of any of those actions) and give information on—

(i) how to contact the person; and

(ii) any skills the person is required to have; and

(iii) any actions that person is expected to take; and

(c) specify—

(i) how to obtain information about the compressed gases and their means of control; and

(ii) actions to be taken to contact an emergency service provider; and

(iii) the purpose and location of each item of equipment or material to be used to manage the emergency; and

(iv) how to decide what actions to take; and

(v) the sequence in which actions should be taken.

71 Availability of equipment, materials, and people

All equipment and materials described in an emergency response plan, and all responsible people described in an emergency response plan who are on duty, must—

(a) be present at the location concerned; or

(b) be available to reach the location of the compressed gas within the times specified in the plan; or

(c) in the case of a trained person, be available to provide the advice or information specified in the plan within a time specified in the plan.

72 Availability of plans

(1) An emergency response plan must be available to every person identified under regulation 70(2)(b) as being responsible for executing the plan or a specific part of it, and to every emergency service provider identified in it.

(2) The information in an emergency response plan must meet the standards of presentation required by Part 2 of the Hazardous Substances (Identification) Regulations 2001.

73 Testing plans

(1) An emergency response plan must be tested at least every 12 months.

(2) Tests undertaken under subsection (1) must demonstrate that every procedure or action in the plan is workable and effective.

(3) If there is a change to the persons, procedures, or actions specified in an emergency response plan, the plan must be tested within 3 months of the change; and the test must demonstrate that—

(a) the changed persons can perform their functions under the plan; and

(b) each changed procedure or action is workable and effective.

(4) The carrying out and the results of every test must be documented; and the documentation must be retained for at least 2 years.

74 Plan can be part of other management documentation

An emergency response plan can be part of other management documentation for an emergency whether—

(a) required by the Act or some other Act; or

(b) undertaken by a person or organisation for some other reason.

Part 10
Registers

75 Cylinder register

(1) The Authority must keep a register of each cylinder design for which there is—

(a) a current design verification certificate issued in accordance with regulation 15:

(b) an existing design standard under regulation 5.

(2) The Authority must ensure the register is available for public inspection.

(3) For each design verification certificate for which a register number has been allocated, the Authority must record the following details:

(a) the date of registration:

(b) the design standard or design standard approved as a code of practice:

(c) the name of the manufacturer:

(d) the water capacity:

(e) the outer diameter:

(f) the wall thickness:

(g) the material specification, material, and method of construction:

(h) information identifying every gas or gases for which the cylinder is intended to be used:

(i) the fill ratio or charging pressure:

(j) the test pressure:

(k) the neck thread details:

(l) any special conditions that the Authority considers are necessary to promote the safe use of the cylinder:

(m) the name and country of origin of the third party inspection agency:

(n) whether the specification has been amended, withdrawn, or suspended.

76 Special register for cylinders

(1) The Authority must keep a register of every cylinder design in respect of which a special register number has been allocated under regulation 21.

(2) The Authority must ensure that the register is available for inspection.

(3) For each cylinder design for which a special register number has been allocated, the Authority must record the following details:

(a) the date of registration:

(b) the design standard or design standard approved as a code of practice:

(c) the name of the manufacturer:

(d) the water capacity:

(e) the outer diameter:

(f) *[Revoked]*

(g) the material and the method of construction:

(h) information identifying every gas or gases for which the cylinder is intended to be used:

(i) the fill ratio or charging pressure:

(j) the test pressure:

(k) the neck thread details:

(l) any special conditions that the Authority considers are necessary to promote the safe use of the cylinder:

(m) the name of the third party inspection agency.

(n) *[Revoked]*

Regulation 76(3)(f): revoked, on 1 November 2012, by regulation 40(1) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

Regulation 76(3)(g): replaced, on 1 November 2012, by regulation 40(2) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

Regulation 76(3)(m): amended, on 1 November 2012, by regulation 40(3) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

Regulation 76(3)(n): revoked, on 1 November 2012, by regulation 40(4) of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

77 Cylinder fittings register

(1) The Authority must keep a register of every cylinder fitting design for which a register number has been allocated under regulation 36.

(2) The Authority must ensure that the register is available for public inspection.

(3) For each cylinder fitting, the Authority must record the following details:

(a) the date of registration:

(b) the design standard or design standard approved as a code of practice:

(c) the name of the manufacturer:

(d) the material specification, material, and method of construction:

(e) information identifying every gas or gases for which the fitting is intended to be used:

(f) the thread or connection details:

(g) any special conditions that the Authority considers are necessary to promote the safe use of the fitting:

(h) for LPG fittings only, the name and country of origin of the recognised inspection agency:

(i) whether the specification has been amended, withdrawn, or suspended.

78 Special register for cylinder fittings

(1) The Authority must keep a register of every cylinder fitting for which a register number has been allocated under regulation 38.

(2) The Authority must ensure that the register is available for public inspection.

(3) For each cylinder fitting for which a special register number has been allocated, the Authority must record the following details:

(a) the date of registration:

(b) the design standard or design standard approved as a code of practice:

(c) the name of the manufacturer:

(d) the material specification, material, and method of construction:

(e) information identifying every gas or gases for which the fitting is intended to be used:

(f) the thread or connection details:

(g) any special conditions that the Authority considers are necessary to promote the safe use of the fitting:

(h) for LPG fittings only, the name and country of origin of the recognised inspection agency:

(i) whether the specification has been amended, withdrawn, or suspended.

79 Recalls and design withdrawals

(1) If the Authority considers that a fitting, aerosol, cylinder, or non-refillable container currently in New Zealand is unsafe, the Authority may recall the fitting, aerosol, cylinder, or non-refillable container.

(2) If the Authority considers that the design for a fitting, aerosol, cylinder, or non-refillable container is unsafe, the Authority may withdraw approval for the design.

Regulation 79: replaced, on 1 November 2012, by regulation 41 of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

80 Certain approved specifications and designs deemed registered

(1) The Authority must keep on the appropriate register kept under this Part a record of all specifications and designs that were, immediately before the commencement of these regulations, approved under regulation 8 of the Dangerous Goods (Class 2—Gases) Regulations 1980.

(2) These specifications and designs must be treated as designs for which verification certifications have been issued under these regulations.

Schedule
Import test clearance for UNRTDG cylinders

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Schedule: inserted, on 1 November 2012, by regulation 42 of the Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284).

1 Purpose of import test clearance

The purpose of an import test clearance is to verify that a cylinder has foreign test markings indicating that the cylinder has been tested in accordance with clause 6.2.2.7 of UNRTDG (and is therefore safe to be filled in New Zealand).

2 Verifying foreign design and construction certification

If the first interval following manufacture specified in regulation 52(1) has not yet passed, a test certifier may issue an import test clearance for the cylinder if the cylinder is marked in accordance with clauses 6.2.2.7.1 to 6.2.2.7.5 of Chapter 6.2 of UNRTDG—

(a) by or on behalf of the government of a country other than New Zealand; and

(b) certifying that the cylinder has been designed and constructed, and passed initial inspections and tests, in accordance with Chapter 6.2 of UNRTDG.

3 Verifying foreign periodic testing

If the first interval following manufacture specified in regulation 52(1) has passed, a test certifier may issue an import test clearance for a cylinder if the cylinder is marked in accordance with clause 6.2.2.7 of chapter 6.2 of UNRTDG—

(a) by or on behalf of the government of a country other than New Zealand; and

(b) with current periodic inspection and test markings that certify that the cylinder complies with the periodic inspection and testing requirements of clause 6.2.2.4 and 6.2.2.6 of chapter 6.2 of UNRTDG.

4 Issue of import test clearance

If the test certifier issues an import test clearance for a cylinder, he or she must provide the Authority with a copy of the import test clearance.

5 Exception

Despite clauses 2 and 3, a test certifier must not issue an import test clearance for a cylinder if he or she has reasonable grounds to believe that the cylinder—

(a) is unsafe; or

(b) despite its markings, does not comply with Chapter 6.2 of UNRTDG.

Diane Morcom,
Clerk of the Executive Council.

Issued under the authority of the Legislation Act 2012.
Date of notification in *Gazette*: 4 March 2004.

Reprints notes

1 General

This is a reprint of the Hazardous Substances (Compressed Gases) Regulations 2004 that incorporates all the amendments to those regulations as at the date of the last amendment to them.

2 Legal status

Reprints are presumed to correctly state, as at the date of the reprint, the law enacted by the principal enactment and by any amendments to that enactment. Section 18 of the Legislation Act 2012 provides that this reprint, published in electronic form, has the status of an official version under section 17 of that Act. A printed version of the reprint produced directly from this official electronic version also has official status.

3 Editorial and format changes

Editorial and format changes to reprints are made using the powers under sections 24 to 26 of the Legislation Act 2012. See also http://www.pco.parliament.govt.nz/editorial-conventions/.

4 Amendments incorporated in this reprint

Hazardous Substances (Health and Safety Reform Revocations) Regulations 2017 (LI 2017/233): regulation 4(1)

Hazardous Substances (Compressed Gases) Amendment Regulations 2012 (SR 2012/284)

Environmental Protection Authority Act 2011 (2011 No 14): section 53(3)

Hazardous Substances (Compressed Gases) Amendment Regulations 2004 (SR 2004/255)

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