WORKSAFE
Mahi Haumaru Aotearoa

Health and Safety at Work (Hazardous Substances—Specification of Design Standards for Refillable Cylinders) Safe Work Instrument 2018 as at 17 May 2024

WorkSafe New Zealand Consolidation

WorkSafe New Zealand consolidation

WorkSafe has developed a consolidated version of this safe work instrument (SWI) so that you can see the original SWI and all its subsequent amendments in a single easy-to-read document.

Disclaimer

This is the current consolidated version of the Health and Safety at Work (Hazardous Substances—Specification of Design Standards for Refillable Cylinders) Safe Work Instrument 2018.

This version:

- has been compiled from the Health and Safety at Work (Hazardous Substances—Specification of Design Standards for Refillable Cylinders) Safe Work Instrument 2018 and its amendment
- is based on the law as it stood as at 17 May 2024
- has been developed by WorkSafe New Zealand for reference only and has no official status.

The official SWI and its amendments, approved by the Minister for Workplace Relations and Safety, are on our website: www.worksafe.govt.nz

History

The Health and Safety at Work (Hazardous Substances—Specification of Design Standards for Refillable Cylinders) Safe Work Instrument 2018 came into force on 1 August 2018 and now incorporates the following amendments.

Amendment	Commencement date
Amendment	
Health and Safety at Work (Hazardous Substances—Specification of Design Standards for Refillable Cylinders) Amendment Safe Work Instrument 2019	16 September 2019

Summary of Amendments

Amendment		Content amended
Amendment		
Health and Safety at Work (Hazardous Substances—Specification of Design Standards for Refillable Cylinders) Amendment Safe Work Instrument 2019		**Schedule 1 amended** (Design standards for Refillable Cylinders)

Health and Safety at Work (Hazardous Substances—Specification of Design Standards for Refillable Cylinders) Safe Work Instrument 2018

WorkSafe New Zealand Consolidation as at 17 May 2024

This safe work instrument is approved under section 227 of the Health and Safety at Work Act 2015 by the Minister for Workplace Relations and Safety, being satisfied that appropriate consultation has been carried out under section 227(3) of that Act.

Contents

Safe Work Instrument

1 Title

This is the Health and Safety at Work (Hazardous Substances—Specification of Design Standards for Refillable Cylinders) Safe Work Instrument 2018.

2 Commencement

This safe work instrument comes into force on 1 August 2018.

3 Interpretation

(1) In this safe work instrument, unless the context otherwise requires,—

Act means the Health and Safety at Work Act 2015

Regulations means the Health and Safety at Work (Hazardous Substances) Regulations 2017.

(2) Any term or expression that is defined in the Act or the Regulations and used, but not defined, in this safe work instrument has the same meaning as in the Act or the Regulations.

4 Application

This safe work instrument applies to—

(a) refillable cylinders (other than a fire extinguisher); and

(b) any refillable or non-refillable gas container required by a relevant safe work instrument to comply with subpart 2 of Part 15 of the Regulations.

5 Specification of standards

For the purpose of regulation 15.8(1)(b) of the Regulations, the design standards listed in Schedule 1 are specified as design standards for a refillable cylinder, other than a fire extinguisher.

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Schedule 1
Design standards for Refillable Cylinders

Item	Design standard reference	Name or title of design standard	Additional description and information
	American standards		
1	DOT-SP 10915, 21st revision, published by		Fully wrapped carbon-fibre reinforced aluminium lined

	the Department of Transport		cylinders conforming to DOT CFFC
1A	DOT-SP 7235, 25th revision, published by the U.S. Department of Transportation		Fibre-reinforced plastic hoop-wrapped cylinders conforming to DOT FRP-2 Standard Revision 1 (dated 4 January 1987), with exceptions. Expires 30 April 2022
1B	DOT-SP 8725, 22nd revision, published by the U.S. Department of Transportation		Fibre reinforced plastic hoop-wrapped aluminium cylinders conforming to DOT FRP-2 Standard Revision 1 (dated 4 January 1987) for transportation of certain non-liquefied compressed gases, with exceptions. Expires 31 March 2022
1C	DOT-SP 9634, 10th revision, published by the U.S. Department of Transportation		Fibre reinforced plastic full composite cylinders conforming to DOT FRP-1 Standard Revision 2 (dated 15 February 1987), with exceptions. Expires 30 May 2022
1D	DOT-SP 12098, 9th revision, published by the U.S. Department of Transportation		Welded spherical cylinders for use in a re-breather unit, conforming to DOT 3HT, with exceptions, expires 31 March 2022
	British standards		
2	BS EN 12245: 2009+A1:2011	Transportable gas cylinders—Fully wrapped composite cylinders	
3	BS EN 13322-1:2003+A1:2006	Transportable gas cylinders—Refillable welded steel gas	

		cylinders— Design and construction Part 1 Carbon steel	
	ISO standards		
4	ISO 4706—2008	Gas cylinders—Refillable welded steel cylinders—Test pressure 60 bar and below	
5	ISO 9809-1:2010	Gas cylinders—Refillable seamless steel gas cylinders —Design, construction and testing—Part 1: Quenched and tempered steel cylinders with tensile strength less than 1 100 MPa	
6A	ISO 3807:2013	Gas cylinders—Acetylene—cylinders—Basic requirements and type testing	
6B	ISO 11119-3:2013	Gas cylinders—Refillable composite gas cylinders and tubes—Design, construction and testing—Part 3: Fully wrapped fibre composite gas cylinders and tubes up to 450L with non-load-sharing metallic or non-metallic liners	