

Title	Demonstrate knowledge of organisations and compliance systems relevant to mechanical building services industry		
Level	3	Credits	3

Purpose	<p>This unit standard is intended primarily for use in the training of personnel in the mechanical building services industry and includes knowledge of organisations, legislation, standards, guides, codes of practice, and documentation applicable to the mechanical building services sector.</p> <p>People credited with this unit standard are able to demonstrate knowledge of: the organisations that impact on the mechanical building services industry; legislations and regulations that impact on the mechanical building services industry; standards, guides, and codes of practice that impact on the mechanical building services industry; and other documentation that impact on the mechanical building services industry.</p>
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Classification	Mechanical Engineering > Heating, Ventilating, and Air Conditioning
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Available grade	Achieved
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Guidance Information

1 References and legislation

a Legislation and regulations

Building Act 2004.

Electricity Act 1992.

Electricity (Safety) Regulations 2010.

Hazardous Substances and New Organisms Act 1996.

Health and Safety at Work Act 2015.

b Standards, guides, and codes of practice

The New Zealand Building Code. Available at

<https://www.building.govt.nz/building-code-compliance/building-code-and-handbooks/>.

Ministry of Business, Innovation and Employment (MBIE). *Acceptable Solutions (AS) and Verification Methods (VM)*. Available at <http://www.dbh.govt.nz/AS/VM-documents>.

The Institute of Refrigeration, Heating and Air Conditioning Engineers of New Zealand Inc. (IRHACE New Zealand). *2001 Code of Practice for the reduction of emissions of fluorocarbon refrigerants in refrigeration and air conditioning applications*. Available from IRHACE, 5/42 Ormiston Road, Flat Bush, Auckland 2016. <http://www.irhace.org.nz>.

AS/NZS 1668.1:2015, *The use of ventilation and air conditioning in buildings - Part 1: Fire and smoke control in buildings.*

AS/NZS 1319:1994, *Safety signs for the occupational environment.*

AS 2913: 2000, *Evaporative airconditioning equipment.*

AS/NZS 3000:2007, *Electrical installations (known as the Australian/New Zealand Wiring Rules).*

AS/NZS 3666.1:2011, *Air-handling and water systems of buildings - Microbial control - Part 1: Design, installation and commissioning.*

AS/NZS 3666.2:2011, *Air-handling and water systems of buildings - Microbial control - Part 2: Operation and maintenance.*

AS/NZS 3666.3:2011, *Air handling and water systems of buildings – Microbial control - Part 3: Performance-based maintenance of cooling water systems.*

AS/NZS 3666.4: 2011, *Air-handling and water systems of buildings - Microbial control - Part 4: Performance-based maintenance of air-handling systems (ducts and components).*

AS/NZS 3902:2004, *Housing, alterations and small buildings contract.*

AS 4041: 2006, *Pressure piping.*

AS/NZS 5149.1:2016, *Refrigerating systems and heat pumps–Safety and environmental requirements. Part 1: Definitions, classification and selection criteria.*

AS/NZS 5149.2:2016, *Refrigerating systems and heat pumps–Safety and environmental requirements. Part 2: Design, construction, testing, marking and documentation.*

AS/NZS 5149.3:2016, *Refrigerating systems and heat pumps–Safety and environmental requirements. Part 3: Installation site.*

AS/NZS 5149.4:2016, *Refrigerating systems and heat pumps–Safety and environmental requirements. Part 4: Operation, maintenance, repair and recovery.*

NZS 4219:2009, *Seismic performance of engineering systems in buildings.*

NZS 4302:1987, *Code of practice for the control of hygiene in air and water systems in buildings.*

NZS 4303:1990, *Ventilation for acceptable indoor air quality.*

Montreal Protocol on Substances that Deplete the Ozone Layer.

Vienna Convention for the Protection of the Ozone Layer.

2 Definition

Compliance systems refers to legislation, regulations, standards, guides, codes of practice, and documentation relevant to the mechanical building services sector.

3 Assessment information

Candidates are expected to have access to and use the required legislation and regulations, standards, guides, and codes of practice during assessments.

Outcomes and performance criteria

Outcome 1

Demonstrate knowledge of the organisations that impact on the mechanical building services industry.

Range organisations may include – Standards New Zealand, Standards Australia, The Institute of Refrigeration Heating & Air Conditioning Engineers of New Zealand Inc. (IRHACE New Zealand), Engineering New Zealand, Territorial authorities of New Zealand, Fire Safety Systems Inspection and Certification bodies, Ministry of Business, Innovation and Employment (MBIE), Association of Building Compliance, Chartered Institution of Building Services Engineers (CIBSE), Sheet Metal and Air Conditioning Contractors' National Association (SMACNA), American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE), Climate Control Companies Association New Zealand (CCCANZ), Mechanical Consultants and Engineers, Building Research Association of New Zealand (BRANZ);
evidence of five organisations is required.

Performance criteria

- 1.1 Organisations that impact on the mechanical building services industry are identified.
- 1.2 The activities of the named organisations are described with reference to their functions in the industry.
- 1.3 The accountability and responsibility of each organisation and the industry under the relevant legislation and standards are described.

Outcome 2

Demonstrate knowledge of legislation and regulations that impact on the mechanical building services industry.

Range evidence of five legislation and regulations is required.

Performance criteria

- 2.1 Legislation and regulations that have a direct impact on the industry are identified by title.
- 2.2 The scope of each legislation and regulation, and the manner in which it impacts on the industry, are described.

Outcome 3

Demonstrate knowledge of standards, guides, and codes of practice that impact on the mechanical building services industry.

Range evidence of five standards, guides, and codes of practice is required.

Performance criteria

- 3.1 Standards, guides, and codes of practice that have a direct impact on the industry are identified by title.

3.2 The scope of each, and the manner in which it impacts on the industry, are described.

3.3 The meaning of given terminology listed in the glossaries of the guides and codes of practice is explained.

Range evidence of five terms is required.

Outcome 4

Demonstrate knowledge of other documentation that impact on the mechanical building services industry.

Range may include – producer statements; certificates of compliance such as gas, electricity, and plumbing services for mechanical building services; system interface with other building services.

Performance criteria

4.1 Documentation that has a direct impact on the industry is identified by title.

4.2 The scope of each document, and the manner in which it impacts on the industry, are described.

4.3 The inspection and certification requirements for mechanical building services systems are outlined.

Planned review date	31 December 2023
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	26 April 2018	N/A

Consent and Moderation Requirements (CMR) reference	0013
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Comments on this unit standard

Please contact Competenz qualifications@competenz.org.nz if you wish to suggest changes to the content of this unit standard.