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| Title | Demonstrate knowledge of the gasfitting of LPG cylinder systems for gas installations in buildings | | |
| Level | 4 | Credits | 5 |

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| Purpose | <p>This unit standard is for people who work in the gasfitting industry.</p> <p>People credited with this unit standard are able to:</p> <ul style="list-style-type: none"> – identify the components of LPG cylinder supply systems for gas installations in buildings; – demonstrate knowledge of the installation of LPG cylinder supply systems for gas installations in buildings; – demonstrate knowledge of the commissioning of LPG cylinder supply systems for gas installations in buildings; and – demonstrate knowledge of regulatory requirements, and underpinning concepts and principles, as applied to the gasfitting of LPG cylinder systems for gas installations in buildings. |
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| Classification | Plumbing, Gasfitting and Drainlaying > Gasfitting |
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| Available grade | Achieved |
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Guidance Information

1 References

Gas Act 1992;

Gas (Safety and Measurement) Regulations 2010;

Hazardous Substances (Compressed Gases) Regulations 2004;

Health and Safety at Work Act 2015;

The following standards, which are available at <http://www.standards.govt.nz>:

AS/NZS 1596:2014, *The storage and handling of LP Gas*,

NZS 5601.1:2013 *Gas installation*;

The following clauses, and any related compliance documents, which are available at <https://www.building.govt.nz/>:

New Zealand Building Code Clause G10 Piped Services,

New Zealand Building Code Clause G11 Gas as an Energy Source;

The following codes of practice, which are available at <http://www.gasnz.org.nz/lpg-association-of-new-zealand/lpga/codes-of-practice/>:

LPG Association Code of Practice No. 2 *Installation and maintenance of twin 45kg LPG cylinder systems*,

LPG Association Code of Practice No 5 *Installation and maintenance of LPG multi-cylinder systems*;

and all subsequent amendments and replacements.

- 2 Range
LPG cylinder supply systems may include any combination of – single cylinder, multiple cylinder, change over systems, automatic ordering.
 - 3 Definition
LPG cylinder systems – cylinders and associated fittings including pigtailed, regulators, manifolds, and condensate trap/drain.
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Outcomes and performance criteria

Outcome 1

Identify the components of LPG cylinder supply systems for gas installations in buildings.

Performance criteria

- 1.1 Identify systems that serve different applications.
- 1.2 Identify the components of LPG cylinder supply systems and their functions.

Range may include but is not limited to – LPG cylinders, changeover regulators, excess flow valves, flexible hoses, single and two stage regulation, condensate trap, cylinder connections, relief valves, relief pipes.
- 1.3 Describe the key considerations when encountering liquid draw LPG cylinder supply systems.

Range must include but is not limited to – application, licensing to install and service, means of identifying, pressure relief.

Outcome 2

Demonstrate knowledge of the installation of LPG cylinder supply systems for gas installations in buildings.

Performance criteria

- 2.1 Calculate capacities of systems in accordance with maximum appliance load.
- 2.2 Establish appropriate location of systems in accordance with relevant standards and codes.
- 2.3 Explain installation of systems in accordance with relevant standards and codes.
- 2.4 Explain the requirements for securing and physical protection of installed systems in accordance with relevant standards and codes.
- 2.5 Explain leakage tests and purging prior to regulator are explained in accordance with relevant standards and codes.

Outcome 3

Demonstrate knowledge of the commissioning of LPG cylinder supply systems for gas installations in buildings.

Performance criteria

3.1 Explain commissioning of systems in accordance with relevant standards and codes.

Range must include but is not limited to – checking and adjusting supply regulator working pressures.

3.2 Explain the post installation documentation to be completed in accordance with relevant standards and codes.

Range may include but is not limited to – gas certificates, guarantees, checklists, site certification.

3.3 Explain the consumer instruction process to be followed on completion of installation and commissioning.

Outcome 4

Demonstrate knowledge of regulatory requirements, and underpinning concepts and principles, as applied to the gasfitting of LPG cylinder systems for gas installations in buildings.

Performance criteria

4.1 Describe applicable sections of legislation, standards, and codes in terms of their application to the gasfitting of LPG cylinder systems for gas installations in buildings.

4.2 Explain underpinning concepts and principles in terms of their application to the gasfitting of LPG cylinder systems for gas installations in buildings.

Range vaporisation rates, relaxation, frosting, reliquification.

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| Replacement information | This unit standard, unit standard 30721, unit standard 30722, and unit standard 30723 replaced unit standard 21897. |
| Planned review date | 31 December 2022 |

Status information and last date for assessment for superseded versions

| Process | Version | Date | Last Date for Assessment |
|--------------|---------|------------------|--------------------------|
| Registration | 1 | 23 November 2017 | N/A |

Consent and Moderation Requirements (CMR) reference

0003

This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Comments on this unit standard

Please contact The Skills Organisation reviewcomments@skills.org.nz if you wish to suggest changes to the content of this unit standard.