

Title	Verify foul water for sanitary plumbing systems and consider and select solutions for the system		
Level	5	Credits	10

Purpose	People credited with this unit standard will be able to: <ul style="list-style-type: none"> – verify foul water for sanitary plumbing systems; and – consider and select solutions to mitigate adverse effects of a foul water for sanitary plumbing system.
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Classification	Plumbing, Gasfitting and Drainlaying > Plumbing
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Available grade	Achieved
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Guidance Information

- 1 This unit standard builds upon the pre-existing knowledge and skills held by a tradesman plumber. It reflects part of the increased knowledge and skill set that is required to become recognised as a certifying plumber. The competencies expected of a tradesman plumber have already been demonstrated and reassessment is not required.

- 2 References
Building Act 2004;
New Zealand Building Code;
Construction Contracts Act 2002;
Health Act 1956;
Health and Safety at Work Act 2015;
Plumbers, Gasfitters, and Drainlayers Act 2006;
Plumbers, Gasfitters and Drainlayers Board (Plumbing Registration and Licensing) Notice 2016;
Resource Management Act 1991;
The following standards, which are available at <http://www.standards.govt.nz>:
AS/NZS 3500.1:2018 *Plumbing and drainage – Part 1: Water services*;
AS/NZS 3500.2:2018 *Plumbing and drainage – Part 2: Sanitary plumbing and drainage*;
AS/NZS 3500.4:2018 *Plumbing and drainage – Part 4: Heated water services*;
NZS 3604:2011 *Timber-framed buildings*;
NZS 4219:2009 *Seismic performance of engineering systems in buildings*;
The following standard which is available at <https://www.bsigroup.com>:
BS EN 12056-2:2000, *Gravity drainage systems inside buildings (G13/VM1)*;
The following guides, which are available at <http://www.worksafe.govt.nz>:
Health and Safety by Design: 2018;
and all subsequent amendments and replacements.

- 3 Definition
Compliance requirements – requirements of the New Zealand Building Code; the Building Act 2004; and any other relevant legislation, regulations, codes, or standards as applicable to plumbing.
- 4 Assessment
Assessments requiring application or demonstration of skills and knowledge may be performed using workplace evidence or evidence derived from simulation or scenario based activities.
Includes application of trade calculations and science. Trade calculations and science may be demonstrated through the use of graphs, tables, software tools, or online or other electronic resources.
- 5 All tasks must be carried out in accordance with:
Building Act 2004;
Health and Safety at Work Act 2015;
New Zealand Building Code; and
any other relevant legislation, regulations, codes, or standards as applicable to drainlaying.

Outcomes and performance criteria

Outcome 1

Verify foul water for sanitary plumbing systems.

Range includes a minimum of three systems;
one system must be for a multilevel building;
one system must include a pump which is an integral part of the system;
includes but not limited to – sanitary appliances and fixtures;
may include – surcharge protection, grey water handling systems.

Performance criteria

- 1.1 Review systems to confirm they comply with designs.
- 1.2 Review systems to confirm they comply with compliance requirements.
- 1.3 Review systems to identify their potential adverse effects on structures.
Range may include but is not limited to – structural integrity, weather tightness, seismic, fire rating, internal water damage.
- 1.4 Perform tests to confirm correct operation of systems.

Outcome 2

Consider and select solutions to mitigate adverse effects of a foul water for sanitary plumbing system.

Range consideration may be based on but is not limited to – design of system, compliance requirements.

Performance criteria

- 2.1 Consider and select solutions to mitigate issues with a system.
- Range issues may include but are not limited to – not in accordance with the design, does not operate as intended.
- 2.2 Consider and select solutions to mitigate adverse effects of a system on structure.
- Range adverse effects of system on structures may include but are not limited to – structural integrity, weathertightness, seismic, fire rating, internal water damage, positioning of system in relation to other services.

Planned review date	31 December 2024
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	26 March 2020	N/A

Consent and Moderation Requirements (CMR) reference	0003
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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 The Skills Organisation reviewcomments@skills.org.nz if you wish to suggest changes to the content of this unit standard.