

Title	Maintain and calibrate density monitoring equipment		
Level	4	Credits	4

Purpose	People credited with this unit standard are able to: – calibrate density measuring devices; and – maintain density measuring devices.
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Classification	Industrial Measurement and Control > Industrial Measurement and Control - Maintenance
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Available grade	Achieved
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Guidance Information

- 1 This unit standard has been developed for learning and assessment in a workplace environment.
- 2 References
ANSI/ISA-51.1-1979 (R1993) *Process Instrumentation Terminology*;
Electricity Act 1992;
Electricity (Safety) Regulations 2010;
Health and Safety at Work Act 2015 and associated regulations;
ISSN 0114-0663, *New Zealand Electrical Codes of Practice*, available from Worksafe, <https://worksafe.govt.nz/>;
CSP19 – ISSN 0110-9316, *Code of Safe Practice for the use of industrial gauges containing sealed radioactive sources 2005* (Ministry of Health, New Zealand);
and all subsequent amendments and replacements.
- 3 Definitions
Density measurement – can include nuclear thickness measuring equipment.
Industry requirements – includes all asset owner requirements, manufacturers' specifications; and enterprise requirements which cover the documented workplace policies, procedures, specifications, business requirements; and quality management requirements relevant to the workplace in which the assessment is carried out.
Maintain – planned activity during normal operation, to conserve or keep an item or piece of equipment in a state of repair and to ensure that this is done in a sustainable way.
- 4 Recommended skills and knowledge: Unit 28080, *Demonstrate knowledge of liquid analytical measurement systems*.

Outcomes and performance criteria

Outcome 1

Calibrate density measuring devices.

Performance criteria

- 1.1 Explain and follow safe work procedures.
- Range may include but is not limited to – isolation, process fluid, pressure.
- 1.2 Select test equipment according to required accuracy and range of devices.
- Range may include but is not limited to – pressure calibration equipment, nuclear radiation sources.
- 1.3 Identify and explain types and causes of typical errors.
- Range may include but is not limited to – test equipment accuracy, ambient temperature.
- 1.4 Calibrate devices to specification.
- Range may include but is not limited to – zero, span, suppression, elevation.
- 1.5 Document test results in accordance with industry requirements.

Outcome 2

Maintain density measuring devices.

Performance criteria

- 2.1 Locate, interpret, and apply technical information for the device.
- 2.2 Explain and follow safe work procedures are explained and followed.
- Range may include but is not limited to – isolation, process fluid, pressure.
- 2.3 Maintain device to ensure continued operation.
- Range may include but is not limited to – tools, materials, parts, techniques, specifications.
- 2.4 Reinstall device to operational status in accordance with industry requirements.
- 2.5 Produce reports and documentation in accordance with industry requirements.

Planned review date	31 December 2021
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	31 October 1995	31 December 2013
Revision	2	30 October 1997	31 December 2013
Revision	3	3 April 2001	31 December 2013
Review	4	22 June 2001	31 December 2013
Review	5	19 May 2008	31 December 2019
Review	6	21 November 2013	N/A
Rollover and Revision	7	28 June 2018	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.