

Title	Demonstrate knowledge of, take, and process product samples in an energy and chemical plant		
Level	3	Credits	3

Purpose	<p>This unit standard is intended for people working as boiler operators and energy and chemical process operators in an energy or chemical plant.</p> <p>People credited with this unit standard are able to: demonstrate knowledge of product sampling; and take and process product samples, in an energy and chemical plant.</p>
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Classification	Energy and Chemical Plant > Monitoring of Energy and Chemical Plant
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Available grade	Achieved
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Guidance Information

- Legislation and regulations relevant to this unit standard includes but is not limited to:
 - Health and Safety at Work Act 2015;
 - Health and Safety at Work (Hazardous Substances) regulations 2017 (HSWA);
 - Resource Management Act 1991;
 and any subsequent amendments.
- Definitions

Energy and chemical plant may be in – petrochemical, agri-nutrient, power generation, dairy processing, meat processing, and wood fibre manufacturing, or other plants that operate with a combination of high temperatures, pressures, steam and/or chemicals in gas, liquid or solid form.

Organisational requirements – documented policies and procedures. These may include: equipment manufacturers' procedures; plant procedures; suppliers' instructions; site signage; codes of practice; company health and safety plans; on site briefings; and supervisor's instructions. This includes all regulatory and legislative obligations that apply to the plant.

Plant – the operational unit, equipment and/or workplace at which the person is working.
- For the purposes of assessment:
 - evidence for the practical components of this unit standard must be supplied from the workplace.

Outcomes and performance criteria

Outcome 1

Demonstrate knowledge of product sampling in an energy and chemical plant.

Performance criteria

1.1 Describe reasons for product sampling.

Range evidence of three is required.

1.2 Identify and describe types of sample containers in terms of the sample they would be used to collect.

Range containers include but are not limited to – bottles, cans, bombs, balloons;
evidence of one type of each sample for each container from the candidate's worksite is required.

Outcome 2

Take and process product samples in an energy and chemical plant.

Range evidence of three different samples from different material sources, and at least two different materials is required.

Performance criteria

2.1 Identify materials to be sampled in accordance with organisational requirements.

2.2 Interpret plant documentation to identify hazards to personnel health and safety and the required precautions to be taken in accordance with organisational requirements.

2.3 Take samples using safe work practices in accordance with organisational requirements.

2.4 Identify and locate plant sampling points in accordance with organisational requirements.

2.5 Check samples to ensure they are representative and free of contamination in accordance with organisational requirements.

2.6 Process, label, and report samples to the supervisor in accordance with organisational requirements.

Replacement information	This unit standard was replaced by skill standard 40357.
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This unit standard is expiring. Assessment against the standard must take place by the last date for assessment set out below.

Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	8 November 1995	31 December 2014
Revision	2	15 December 1998	31 December 2014
Review	3	29 May 2000	31 December 2014
Revision	4	24 July 2002	31 December 2014
Review	5	27 June 2005	31 December 2014
Rollover and Revision	6	25 July 2006	31 December 2014
Review	7	22 May 2009	31 December 2016
Review	8	24 October 2014	31 December 2022
Review	9	27 February 2020	31 December 2026
Review	10	30 January 2025	31 December 2026

Consent and Moderation Requirements (CMR) reference	0079
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.