Title	Demonstrate knowledge of and use boiler house chemicals in an energy and chemical plant		
Level	3	Credits	7

Purpose	This unit standard is intended for people working as boiler operators and energy and chemical process operators in an energy and chemical plant.
	People credited with this unit standard are able to: demonstrate knowledge of boiler house chemicals and the required safety procedures; and prepare and use boiler house chemicals, in an energy and chemical plant.

Classification	Energy and Chemical Plant > Safety and Legislation for Energy and Chemical Plant

Available grade Achieved	
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Guidance Information

- 1 Legislation relevant to this unit standard includes but is not limited to:
 - Health and Safety at Work Act 2015;
 - Hazardous Substances and New Organisms Act (HSNO) 1996;
 - Resource Management Act 1991; and any subsequent amendments.

2 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.

- 3 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 boiler house chemicals and the required safety procedures in an energy and chemical plant.

Range evidence of three chemicals is required.

Performance criteria

1.1 Locate and interpret chemical data to identify chemicals and precautions for their handling, storage, usage, and disposal.

Range data may include but is not limited to – Hazchem code, safety data sheets, container labels, HSNO classifications.

- 1.2 Describe first aid procedures for exposure to each boiler house chemical in terms of the relevant safety data sheet.
- 1.3 Identify and describe spill handling procedures for each boiler house chemical in terms of precautions and actions to be taken.
- 1.4 Describe boiler house chemicals in terms of the hazards for personnel, plant and the environment.
- 1.5 Describe the inventory management system used for boiler house chemicals.

Outcome 2

Prepare and use boiler house chemicals in an energy and chemical plant.

Range evidence of two is required.

Performance criteria

2.1 Prepare and use boiler house chemicals using safe work practices in accordance with organisational requirements.

Replacement information	This unit standard replaced unit standard 21470.	
	This unit standard was replaced by skill standard 40369.	

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	24 October 2014	31 December 2022
Review	2	27 February 2020	31 December 2026
Review	3	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.