

40386**Apply processes for safe handling of chemicals in an energy and chemical plant**

Kaupae Level	3
Whiwhinga Credit	7
Whāinga Purpose	<p>This skill standard is intended for people working as boiler operators and energy and chemical process operators in an energy and chemical plant.</p> <p>People credited with this skill standard are able to: identify chemical handling hazards and control measures; describe procedures and associated documentation for receiving, storing, and handling chemicals; and apply processes for safe handling of chemicals in an energy and chemical plant.</p> <p>This skill standard can be used in the New Zealand Energy and Chemical qualifications at Level 3 and above.</p>

Hua o te ako me Paearu aromatawai | Learning outcomes and assessment criteria

Hua o te ako Learning outcomes	Paearu aromatawai Assessment criteria
1. Identify chemical handling hazards and control measures in an energy and chemical plant.	a. Identify chemical handling hazards found in an energy and chemical plant
	b. Describe chemical handling hazards in terms of their potential risk to people, plant and environment.
	c. Describe control measures to eliminate or minimise risks identified in 1b.
2. Describe procedures and associated documentation for receiving, storing, and handling chemicals used in an energy and chemical plant.	a. Describe the procedures for receiving, storage of, and handling chemicals.
	b. Describe disposal methods and/or processes and reporting requirements for chemical spills.
	c. Describe the plant associated documentation related to chemical use and storage.

Hua o te ako Learning outcomes	Paearu aromatawai Assessment criteria
3. Apply processes for safe handling of chemicals in an energy and chemical plant.	a. Identify chemicals found in an energy and chemical plant in terms of their use.
	b. Identify the types of containers, designated storage areas, and segregation requirements for storage of chemicals.
	c. Locate safety information relating to storage and handling of chemicals.
	d. Carry out work activities adhering to and maintaining health and safety procedures.

Pārongo aromatawai me te taumata paearu | Assessment information and grade criteria

Assessment specifications:

- evidence for the practical components of this skill standard must be supplied from the workplace.
- evidence for all outcomes must be presented in accordance with organisational requirements.
- 1a: evidence of at least eight (8) hazards is required.
- 3a: evidence of three (3) different chemicals is required.
- 3c: safety information includes but is not limited to – HAZCHEM code warning statements, chemical data sheets, safety data sheets, container labels, manufacturer's instructions, first aid information, personal protective equipment (PPE) instructions.

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.

Hazard – the meaning used in section 2 of the Health and Safety at Work Act 2015.

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.

Risks – a situation involving danger to people from being exposed to a hazard.

Ngā momo whiwhinga | Grades available

Achieved

Ihirangi waitohu | Indicative content

None

Rauemi | Resources

Legislation and regulations relevant to this unit standard include but are 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.

Pārongo Whakaū Kouna | Quality assurance information

Ngā rōpū whakatau-paerewa Standard Setting Body	Hanga-Aro-Rau Manufacturing, Engineering and Logistics Workforce Development Council
Whakaritenga Rārangi Paetae Aromatawai DASS classification	Manufacturing > Energy and Chemical Plant > Operation of Energy and Chemical Plant
Ko te tohutoro ki ngā Whakaritenga i te Whakamanatanga me te Whakaōritenga CMR	0079

Hātepe Process	Putanga Version	Rā whakaputa Review Date	Rā whakamutunga mō te aromatawai Last date for assessment
Rēhitatanga Registration	1	27 March 2025	N/A
Kōrero whakakapinga Replacement information	This skill standard replaced unit standard 32107.		
Rā arotake Planned review date	31 December 2029		

Please contact Hanga-Aro-Rau Manufacturing, Engineering and Logistics Workforce Development Council at qualifications@hangaarorau.nz to suggest changes to the content of this skill standard.