

40360 Prepare for and maintain control of the production process in an energy and chemical plant

Kaupae Level	3
Whiwhinga Credit	7
Whāinga Purpose	<p>People credited with this skill standard are able to: prepare production process equipment; maintain control of the production process and describe process waste management; restore required production process conditions in the event of process problems; and complete production processing documentation requirements in an energy and chemical plant.</p> <p>This skill standard can be used in the New Zealand Energy and Chemical qualifications at Levels 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. Prepare production process equipment in an energy and chemical plant.	a. Locate and describe documentation for managing the quality of production processes.
	b. Check feed materials for the correct identity, quality, and specified quantity to ensure processing can commence and continue without shortage of supply.
	c. Identify the status of production process equipment.
	d. Adjust controls for specified production.
	e. Identify tests for production processes and take samples.
	f. Identify critical operating parameters for the operation of each unit of production equipment.
	g. Describe any deviations from each of the critical operating parameters in terms of consequences.
	h. Describe actions to take in the event of deviations from each of the critical operating parameters.

Hua o te ako Learning outcomes	Paearu aromatawai Assessment criteria
2. Maintain control of the production process and describe process waste management in an energy and chemical plant.	a. Check production products, materials, and components to ensure they meet site requirements for quality.
	b. Set aside and store any products, materials, or components which fail to meet production specifications.
	c. Initiate corrective actions for out-of-specification products, materials, or components.
	d. Check operational and associated activities for meeting time, quality, efficiency, and production requirements.
	e. Describe the procedures for disposal and/or recovery of waste materials.
	f. Describe required actions when emergency shut down procedures are initiated.
3. Restore required production process conditions in the event of process problems.	a. Identify and describe possible process faults in terms of their causes and how they may be recognised by the process operator.
	b. Identify and investigate any faults and causes of problems and take remedial action.
	c. Report any problems which cannot be remedied within the candidate's authority to the supervisor.
	d. Restore normal process conditions without delay and without compromising safety standards.
4. Complete production processing documentation requirements in an energy and chemical plant.	a. Complete documentation of final test results, weights, composition and instrument readings.
	b. Record data related to setting up and adjustments of plant and equipment.
	c. Describe, communicate and record actions taken to deal with abnormal conditions and their results and identify trends and product quality deviations.

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.
- 3c: Evidence of three (3) faults reported is required. Faults include significant deviations from quality specification, departure of process parameters from expected parameters under candidate's control, within operational area.

Definitions

Energy and chemical plant may be in – energy and chemical, 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.

Ngā momo whiwhinga | Grades available

Achieved.

Ihirangi waitohu | Indicative content

None.

Rauemi | Resources

Legislation 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;
 - Resource Management Act 1991;
- and any subsequent amendments.

Pārongo Whakaū Kounga | 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 > Monitoring 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	30 January 2025	N/A
Kōrero whakakapinga Replacement information	This skill standard replaced unit standard 9592.		
Rā arotake Planned review date	31 December 2029		

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