

**40373****Punch list, commission, and optimise new equipment in a system in an energy and chemical plant**

<b>Kaupae   Level</b>	4
<b>Whiwhinga   Credit</b>	7
<b>Whāinga   Purpose</b>	<p>People credited with this skill standard are able to: punch list new equipment in a system; commission a system with new equipment; and optimise new equipment in a system, in an energy and chemical plant.</p> <p>This skill standard can be used in the New Zealand Energy and Chemical qualifications at Levels 4 and above.</p>

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

<b>Hua o te ako   Learning outcomes</b>	<b>Paearu aromatawai   Assessment criteria</b>
1. Punch list new equipment in a system in an energy and chemical plant	a. Describe purpose and principles of punch listing.
	b. Identify the equipment to be punch listed, and the associated drawings in accordance with organisational requirements.
	c. Punch list new equipment to be commissioned to identify any defects or omissions.
	d. Record and report any equipment defects or omissions to relevant personnel.

Hua o te ako   Learning outcomes	Paearu aromatawai   Assessment criteria
2. Commission a system with new equipment in an energy and chemical plant.	a. Describe emergency procedures and contingency plans associated with the commissioning.
	b. Confirm the equipment status as ready for commissioning.
	c. Carry out commissioning of equipment and system in accordance with organisational requirements.
	d. Monitor equipment operation during commissioning to identify problems.
	e. Log and report any problems to identify remedial actions required.
3. Optimise new equipment in a system in an energy and chemical plant.	a. Identify plant operating parameters to determine the baseline.
	b. Optimise the plant to maximise design specifications.
	c. Trend and record trial actions to provide evidence of results.

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

#### Assessment specifications:

- evidence for the practical components of this unit standard must be supplied from the workplace.
- evidence for all outcomes must be presented in accordance with organisational requirements.
- evidence may be given of commissioning equipment that has been modified.

#### 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.

*Punch listing* – checking new or modified equipment and processes prior to commissioning.

**Ngā momo whiwhinga | Grades available**

Achieved

**Ihirangi waitohu | Indicative content**

- Emergency procedures, such as – emergency shutdown, trip tests, emergency response equipment, personnel responsibilities, audits.

**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 (HSWA);
  - Resource Management Act 1991;
- and any subsequent amendments.

**Pārongo Whakaū Kouna | Quality assurance information**

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

<b>Hātepe   Process</b>	<b>Putanga   Version</b>	<b>Rā whakaputa   Review Date</b>	<b>Rā whakamutunga mō te aromatawai   Last date for assessment</b>
<b>Rēhitatanga   Registration</b>	1	30 January 2025	N/A
<b>Kōrero whakakapinga   Replacement information</b>	This skill standard replaced unit standard 9617.		
<b>Rā arotake   Planned review date</b>	31 December 2029		

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