

40362 Describe the purpose, application, and monitoring of cathodic protection in an energy and chemical plant

Kaupae Level	4
Whiwhinga Credit	2
Whāinga Purpose	<p>People credited with this skill standard are able to describe the purpose, application, and monitoring of cathodic protection 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

Hua o te ako Learning outcomes	Paearu aromatawai Assessment criteria
1. Describe the purpose, application, and monitoring of cathodic protection in the energy and chemical plant.	a. Describe cathodic protection in terms of its purpose and use.
	b. Describe basic cathodic protection survey equipment and the reasons for regular monitoring of cathodic protection system performance.
	c. Describe how cathodic protection systems work to prevent corrosion and the potential operator actions that can negatively affect system performance.
	d. Describe the causes of corrosion in an energy and chemical plant that may require cathodic protection.

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

Assessment specifications:

- evidence of all outcomes must be presented in accordance with organisational requirements.
- 1b: equipment includes – copper sulphate half-cell, digital multi-meter, above ground CP test point.
- 1c: includes galvanic and impressed current systems.

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.

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;
 - Hazardous Substances and New Organisms Act 1996;
 - 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 9575.		
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.