

40388**Conduct pigging activities in an energy and chemical pipeline**

Kaupae Level	3
Whiwhinga Credit	3
Whāinga Purpose	<p>People credited with this skill standard are able to: describe reasons for pigging and pigging requirements; load a pig into a launcher in a pipeline; launch a pig into a pipeline; receive a pig in a pipeline; and unload a pig and reinstate the receiving system.</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. Describe reasons for pigging and pigging requirements.	a. Describe the reasons for using pigs.
	b. Identify pig types in terms of application and site pigging requirements.
	c. Identify hazards in relation to the interruption of pipeline flow.
2. Load a pig into a launcher in a pipeline.	a. Load the pig and seat into neck of the launcher safely.
3. Launch a pig into a pipeline.	a. Carry out pig launching system checks.
	b. Launch the pig into the pipeline safely.
	c. Maintain communication relating to the process with relevant personnel prior to and during the pig launching operation.
	d. Reinstall the pig launching system.
4. Receive a pig in a pipeline.	a. Carry out pig receiving system checks.
	b. Receive the pig and safely depressurise and drain the pig receiver.
	c. Maintain communication relating to the process with relevant personnel during pig receiving operations.
5. Unload a pig and reinstate the receiving system.	a. Carry out pig unloading system checks.
	b. Unload the pig safely and without spillage.
	c. Reinstall the pig receiving system.
	d. Record and report findings to relevant personnel.

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.
- this skill standard relates to pipelines that carry liquid or gas petrochemicals. It excludes the pigging of pipelines for other liquid or gas products.
- 1a: cleaning, purging, product separation, clearing blockages, pipeline condition analysis.
- 1b: displacement, bi-directional, intelligent, conical cup, gauging, batching (single or multiple), spherical, wire brush, scraper.
- 1c: stuck pig, block valve closure, reduced flow rates, process interruption.
- 2a: launcher valves are confirmed closed, pressure vented from launcher, zero pressure confirmed, launcher door opened standing clear of open end, visual inspection of door seal.
- 3a: visual inspection of threads and pressure bleed valves, pressure isolations, signalling/tracking equipment, quick opening enclosure, door closed, line valves are confirmed open, check for leaks.
- 3c: control room operator, operations and maintenance personnel, external customers.
- 4a: visual inspection of threads and pressure bleed valves, pressure isolations, signalling/tracking equipment, quick opening enclosure, line valves are confirmed open, check for leaks.
- 4c: control room operator, operations and maintenance, external customers.
- 5a: pressure, isolations, catchment, signalling/tracking equipment, safety equipment.
- 5b: receiver valves are confirmed closed, zero pressure confirmed, catchment equipment in place, receiver door opened standing clear of open end, visual inspection of door seal, pig unloaded and inspected, receiver door and vents/drains closed.
- 5c: receiver door seal cleaned and lubricated, receiver door closed, vents/drains closed, waste disposed of, check for leaks.
- 5d: condition of pig, analysis of debris, reports, follow-up actions.

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.

Pig refers to pipeline internal gauges. Pigs are devices for insertion into pipelines for the purpose of cleaning the lines or separating products.

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 & 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 9585.		
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.