

Field Manufacturing

Registration of skill standards and review of unit standards for *Energy and Chemical Plant*

Subfield	Domain	ID
Energy and Chemical Plant	Monitoring of Energy and Chemical Plant	28157, 3060, 32029, 9553, 9592, 32030, 9506, 9575, 9576, 18725
	Safety and Legislation for Energy and Chemical Plant	24039, 9621, 21468, 21469, 28168, 3046, 3058, 3064, 9617

The Hanga-Aro-Rau Manufacturing, Engineering and Logistics Workforce Development Council has completed the review of the standards listed above.

Date new versions published

January 2025

Planned review date

December 2029

Summary

Hanga-Aro-Rau Manufacturing, Engineering, and Logistics Workforce Development Council met with employers and Te Pūkenga subsidiaries between September 2023 and June 2024 to review the unit standards listed above. These unit standards were originally developed to meet the graduate profile outcomes (GPOs) in the:

- New Zealand Certificate in Energy and Chemical Process Operations (Level 3) with optional strand in Boiler Operations [Ref: 4128]
- New Zealand Certificate in Energy and Chemical Field Operations (Level 4) with strands in Advanced Steam Generation Plant Operation, Chemical Plant Operation, Geothermal Plant Operation, Petrochemical Plant Operation, and Petrochemical Transfer and Storage (with optional strands in Gas Turbine Operation, and Steam Turbine Operation) [Ref: 2307]
- New Zealand Certificate in Energy and Chemical Process Operations (Level 5) [Ref: 2308].

As part of the rollout of skill standards, the review panel agreed to create a new suite of skill standards utilising relevant content from current unit standards to enable programme continuity and support programmes leading towards the above qualifications.

Main changes

- 19 unit standards were reviewed and were replaced with 17 skill standards to reflect current industry practice.

Category C and D standards will expire at the end of December 2026

Impact on existing organisations with consent to assess

Current consent for			Consent extended to		
Nature of consent	Classification or ID	Level	Nature of consent	Classification or ID	Level
Standard	9553	3	Standard	40359	3
	9575	4		40362	4
	9592	3		40360	3
	3046	3		40370	3
	3058	4		40371	4
	3064	4		40372	4
	9621	2		40365	2
	21468	3		40367	3
	21469	3		40368	3

Detailed list of standards – classification, title, level, and credits

All changes are in **bold**.

Key to review category	
A	Dates changed, but no other changes are made - the new version of the standard carries the same ID and a new version number
B	Changes made, but the overall outcome remains the same - the new version of the standard carries the same ID and a new version number
C	Major changes that necessitate the registration of a replacement standard with a new ID
D	Standard will expire and not be replaced

Manufacturing > Energy and Chemical Plant > Monitoring of Energy and Chemical Plant

ID	Title	Level	Credit	Review Category
3060	Demonstrate knowledge of, take, and process product samples in an energy and chemical plant	3	3	C
40357	Take and process product samples in an energy and chemical plant	3	3	New
9506	Demonstrate knowledge of and conduct a sample analysis in an energy and chemical plant laboratory	4	6	D
9553	Inspect pipeline stations in an energy and chemical plant	3	3	C
40359	Conduct inspections on pipeline stations in an energy and chemical plant	3	3	New
9575	Describe the purpose and application of cathodic protection in an energy and chemical plant	4	2	C
40362	Describe the purpose, application, and monitoring of cathodic protection in an energy and chemical plant	4	2	New
9576	Carry out cathodic protection system monitoring in an energy and chemical plant	4	3	D
9592	Prepare production process equipment, and maintain and restore process conditions in an energy and chemical plant	3	7	C
40360	Prepare for and maintain control of the production process in an energy and chemical plant	3	7	New
18725	Monitor, analyse, and respond to process deviations in an energy and chemical plant	5	12	C`
40363	Maintain process conditions and respond to process deviations in an energy and chemical plant	5	12	New

ID	Title	Level	Credit	Review Category
28157	Demonstrate knowledge of instruments used in the energy and chemical industry	3	5	C
40356	Describe instruments used in the energy and chemical industry	3	5	New
32029	Describe and monitor routine energy and chemical plant operations, and carry out operational handover	3	5	C
40358	Monitor routine energy and chemical plant operations, and carry out operational handover	3	5	New
32030	Demonstrate knowledge of and operate control systems in an energy and chemical plant	4	15	C
40361	Operate control systems in an energy and chemical plant	4	15	New

Manufacturing > Energy and Chemical Plant > Safety and Legislation for Energy and Chemical Plant

ID	Title	Level	Credit	Review Category
3046	Demonstrate knowledge of and operate fire safety equipment in an energy and chemical plant	3	5	C
40370	Operate fire safety equipment in an energy and chemical plant	3	5	New
3058	Demonstrate knowledge of gas testing, and perform gas tests in an energy and chemical plant	4	5	C
40371	Perform gas tests in an energy and chemical plant	4	5	New
3064	Demonstrate knowledge of and control a chemical reaction in an energy and chemical plant	4	8	C
40372	Control chemical reactions in an energy and chemical plant	4	8	New
9617	Describe and punch list, commission, and optimise new equipment in a system in an energy and chemical plant	4	7	C
40373	Punch list, commission, and optimise new equipment in a system in an energy and chemical plant	4	7	New
9621	Identify, explain, and use energy and chemical industry symbols, signs, and terminology	2	2	C
40365	Use energy and chemical industry symbols, signs, and terminology	2	2	New
21468	Demonstrate knowledge of energy and chemical plant pollutants and their control measures	3	5	C
40367	Describe energy and chemical plant pollutants and their control measures	3	5	New
21469	Demonstrate knowledge of, use, and monitor safety equipment in an energy and chemical plant	3	5	C
40368	Use and monitor safety equipment in an energy and chemical plant	3	5	New
24039	Demonstrate knowledge of and use a Personal Escape System on an offshore platform	2	3	C
40364	Use a Personal Escape System on an offshore platform	2	3	New
28168	Demonstrate knowledge of and use boiler house chemicals in an energy and chemical plant	3	7	C
40369	Prepare and use boiler house chemicals in an energy and chemical plant	3	7	New