

41226**Manage operational risk and safety controls in a water services treatment environment**

Kaupae Level	4
Whiwhinga Credit	8
Whāinga Purpose	This skill standard is for people who work as operators in drinking water and wastewater treatment environments. People with this skill standard can identify, assess, control, and respond to risks and incident emergencies in drinking water and wastewater treatment activities. This skill standard aligns with the: • New Zealand Certificate in Drinking Water Treatment Operations (Level 4) with optional strands in Pre-Treatment, Clarification, Coagulation and Flocculation, Non-Chlorine Disinfection, Fluoridation and, Filtration [Ref: 5672] • New Zealand Certificate in Wastewater Treatment Operations (Level 4) with optional strands in Activated Sludge, Effluent Disinfection, Fixed Growth Reactor, Separation, Sludge Treatment, and Ponds [Ref: 5673]. This skill standard may also contribute to other water services industry credentials.

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

Hua o te ako Learning outcomes	Paearu aromatawai Assessment criteria
1. Manage operational risk and safety controls in a water services treatment environment.	a. Analyse operational, health, safety, environmental, and public health risks and associated controls to remedy risk for drinking water or wastewater treatment activities.
	b. Select, implement, and communicate risk controls in accordance with operational and compliance requirements.
	c. Integrate risk and safety control practices into routine work activities to maintain a safe operating environment for self and others.
	d. Escalate and respond to incidents and emergencies, including public safety issues, in accordance with operational and compliance requirements.

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

Ākonga must demonstrate the integration of risk and safety control practices in routine work activities and escalation of those risks in accordance with operational requirements, and applicable legislative and regulatory requirements.

Risk identification and management must relate to operational activities in a drinking water or wastewater treatment plant.

This standard provides a foundation for safe and responsible practice across drinking water, wastewater, and on-site water services operations.

Definitions

Operational requirements refer to the documented and embedded ways of working that govern how activities are planned, performed, monitored, and controlled in the workplace to ensure safe, consistent, and compliant operations.

Water services refer to industries responsible for working on or around water supplies, networks, plants, and systems.

Ngā momo whiwhinga | Grades available

Achieved.

Ihirangi waitohu | Indicative content**Operational risk and safety**

- Drinking water safety plans and wastewater safety plans.
- Source water risks and protection measures.
- Treatment process selection and operational limits.
- Critical control point identification and monitoring.
- Investigation of operational issues and implementation of corrective actions.

Regulatory and workplace compliance

- Health and safety responsibilities under workplace procedures.
- Compliance requirements relevant to drinking water and wastewater treatment operations.
- Emergency and incident response requirements.
- Public health and environmental protection obligations.

Hazard identification in treatment environments

- Hazard identification and use of hazard registers.
- Hazardous substances management, including inventories, labels, and safety data sheets (SDS).
- Electrical, chemical, and biological hazards.
- Confined space entry, working at height, manual handling, and hot surfaces or liquids.
- Waterborne pathogens, contamination, and exposure risks.

Risk assessment and control

- Risk assessment tools, including likelihood and consequence.
- Selection and application of risk controls.
- Elimination, substitution, isolation, and engineering controls.
- Use of personal protective equipment (PPE).
- Managing unplanned or emerging risks during operations.

Incident response, escalation, and reporting

- Incident and near-miss reporting.
- Escalation of operational and water safety issues.
- Compliance and regulatory reporting.
- Documentation to support workplace, public health, and regulatory requirements.

Rauemi | Resources

Legislation, regulations and/or industry standards relevant to this skill standard include, but are not limited to:

- Health and Safety at Work Act 2015 - [Health and Safety at Work Act 2015 | WorkSafe](#).
- Water Services Act 2021 - [Water Services Act 2021, Public Act Contents – New Zealand Legislation](#).
- Hazardous Substances and New Organisms Act 1996 - [Hazardous Substances and New Organisms Act 1996 No 30 \(as at 05 April 2025\), Public Act Contents – New Zealand Legislation](#).
- Local Government (Water Services) Act 2024 - [Local Government \(Water Services Preliminary Arrangements\) Act 2024 No 31 \(as at 27 August 2025\), Public Act Part 1 Preliminary provisions – New Zealand Legislation](#).

Where the resources have been updated, please refer to the latest version.

Pārongo Whakaū Kounga | Quality assurance information

Ngā rōpū whakatau-paerewa Standard Setting Body	Energy and Infrastructure Industry Skills Board
Whakaritenga Rārangi Paetae Aromatawai DASS classification	Engineering and Technology > Water Industry > Water - Generic
Ko te tohutoro ki ngā Whakaritenga i te Whakamanatanga me te Whakaōritenga CMR	0120

Hātepe Process	Putanga Version	Rā whakaputa Review Date	Rā whakamutunga mō te aromatawai Last date for assessment
Rēhitatanga Registration	1	28 May 2026	N/A
Kōrero whakakapinga Replacement information	This skill standard replaced unit standard 31933.		
Rā arotake Planned review date	31 December 2032		

Please contact Energy and Infrastructure Industry Skills Board at qualifications@energyinfra-skills.nz if you wish to suggest changes to the content of this skill standard.