

40241 Maintain flow measuring instruments

Kaupae Level	4
Whiwhinga Credit	8
Whāinga Purpose	<p>This skill standard recognises the skills required to maintain flow measuring instruments in an industrial control system or process control system.</p> <p>This skill standard may contribute to the New Zealand Certificate in Industrial Measurement and Control (Practice) (Level 4) [Ref: 2251].</p>

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

Hua o te ako Learning outcomes	Paearu aromatawai Assessment criteria
1. Manage risks when maintaining flow measuring instruments.	a. Risks in maintenance of instruments are identified and control measures are followed.
2. Maintain flow measuring instruments and verify their correct operation, calibration, and integration.	a. The measuring instruments selected are appropriate for the required measuring range, process installation conditions and system integration.
	b. Measurement instruments are configured or reconfigured to meet system requirements.
	c. The measuring instrument's configuration and installation are verified as correct for the duty and purpose.
	d. Calibration records are completed in accordance with stakeholder, legal, and quality requirements.
	e. A procedure to maintain flow measuring instruments is followed to ensure reliable operation.
3. Create a maintenance and quality procedure for a flow measuring instrument.	a. A basic maintenance procedure is created to reflect manufacturers' documentation, calibration procedures, site specific requirements and other relevant documentation.

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

Assessment specifications:

Identification of risks may be assessed orally, and should include consideration of people, plant, equipment, product quality and the environment.

To achieve this standard the candidate must be capable of consistently:

- performing the skill to the required industry standard
- repeating the skill on demand
- performing the skill without supervision
- applying the skill to other work.

Industry requirements refer to all asset owner requirements; manufacturers' specifications; enterprise requirements which cover the documented workplace policies, procedures, specifications, and business requirements; and quality management requirements relevant to the workplace.

Ngā momo whiwhinga | Grades available

Achieved

Ihirangi waitohu | Indicative content

- Test equipment
- Special tooling and consumables
- Drawings/documentation: data sheets, cause and effect, general arrangement, piping and installation diagrams
- Connection and disconnection: electrical, pneumatic, and mechanical or process connection
- Typical types of flow measurement devices, which include DP transmitter used for orifice plate, venturi, averaging pitot tube or flow nozzle; electromagnetic, vortex, turbine, positive displacement, mass flow meter, weir, flume, ultrasonic.
- Risk identification and management working on live systems. Awareness of:
 - risk to personnel
 - risk to product (quality / consumer)
 - risk to process safety / plant
 - environmental risk
 - reputational risk
- Safe work practices and procedures.
- Calibration procedure and verification
- Measurement adjustments
- Reports and documentation in accordance with industry requirements.
- Procedures to service flow measuring instruments.

Rauemi | Resources

- Programme guidance available from qualifications@waihangaararau.nz.
- Manufacturers' instructions and device specification sheets relevant to the systems and equipment used for the task.
- Electricity Act 1992.
- Electricity (Safety) Regulations 2010.
- All vocabulary will align to the IEC 60050 International Electrotechnical Vocabulary (IEV) available at [IEC 60050 - International Electrotechnical Vocabulary](#).

Pārongo Whakaū Kouna | Quality assurance information

Ngā rōpū whakatau-paerewa Standard Setting Body	Waihanga Ara Rau Construction and Infrastructure Workforce Development Council
Whakaritenga Rārangi Paetae Aromatawai DASS classification	Engineering and Technology > Industrial Measurement and Control > Industrial Measurement and Control - Maintenance
Ko te tohutoro ki ngā Whakaritenga i te Whakamanatanga me te Whakaōritenga CMR	0003

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 2637.		
Rā arotake Planned review date	31 December 2029		

Please contact Waihanga Ara Rau Construction and Infrastructure Workforce Development Council qualifications@waihangaararau.nz to suggest changes to the content of this skill standard.