

CP4 Line **Operate concrete pump machinery and equipment for a line delivery system**

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| Kaupae Level | 4 |
| Whiwhinga Credit | 10 |
| Whāinga Purpose | <p>This skill standard is for people who operate concrete pump machinery for line delivery systems.</p> <p>It is for learners with experience in concrete pumping who want to work as a commercially competent Concrete Pump Operator for a line delivery system.</p> <p>This skill standard is intended to be used in the New Zealand Certificate in Concrete (Specialist) L4 Concrete Pump Operation (Line Delivery System) strand.</p> |

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

| Hua o te ako Learning outcomes | Paearu aromatawai Assessment criteria |
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| 1. Confirm on-site set up location for concrete pump machinery and line delivery system | a. Construction site principal consultation completed |
| | b. Safe and efficient machinery and delivery system layout location identified |
| 2. Position and stabilise concrete pump machinery, and line delivery system | a. Concrete pump machinery positioned for safe and efficient line system delivery |
| 3. Complete on-site concrete pump operation for line system delivery | a. Concrete pumping operation completed according to plan |
| | b. Concrete pumping operation completed safely |

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

Assessment specifications:

You will safely undertake a concrete pumping operation for a line delivery system to the standard of a commercially competent Concrete Pump Operator.

Performance must reflect industry best practice.

Concrete pump machinery includes pump, hopper, and line delivery system.

A concrete delivery system may include hose, pipeline, bends, clamps, reducers, safety pins.

Concrete Pump Operation does not include driver licensing requirements.

Ngā momo whiwhinga | Grades available

Achieved

Ihirangi waitohu | Indicative content

- Hazard and risk management
- On-site communication during operation
- Safety radius around pump, workers and public
- Document requirements
- Line hand responsibilities
- Safe operating distances between concrete pump machinery and on-site equipment and machinery
- Assessment of ground conditions
- Pump positioning and line delivery system setup methodology
- Knowledge of pump machinery operating limits
- Operating procedures including pre-start checks and shut down
- Knowledge of concrete properties including MPA and slump, use of retardants, composition, admixtures, and life span
- Effects of steel fibre constituent on concrete pumping
- Working with compressed air
- Trouble shooting - blockages, breakdowns, un-pumpable concrete mixes, hydraulic hose blowout or leak, releasing pressure off delivery system
- Emergency procedures during pumping
- Risks and effects of air in delivery pipe
- Techniques for preventing backpressure build up
- On-site environmental considerations - slurry control, waterway protection and spill kit procedures.

Rauemi | Resources

- Concrete Pumping Health and Safety Guidelines February 2013 Copyright © Concrete Pumping Association of New Zealand.
- Programme guidance available from qualifications@waihangaararau.nz

Pārongo Whakaū Kouna | Quality assurance information

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| Ngā rōpū whakatau-paerewa Standard Setting Body | Waihanga Ara Rau Construction and Infrastructure Workforce Development Council. |
| Whakaritenga Rārangī Paetae Aromatawai DASS classification | Planning and Construction > Concrete > Concrete Construction |
| Ko te tohutoro ki ngā Whakaritenga i te Whakamanatanga me te Whakaōritenga CMR | 0048 |

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| Hātepe Process | Putanga Version | Rā whakaputa Review Date | Rā whakamutunga mō te aromatawai Last date for assessment |
|-------------------------|-----------------------------|--------------------------------------|---|

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|---|--------------|--------------|--------------|
| Rēhitatanga Registration | 1 | [dd mm yyyy] | [dd mm yyyy] |
| Arotakenga Review | <type here> | [dd mm yyyy] | [dd mm yyyy] |
| Kōrero whakakapinga Replacement information | <type here> | | |
| Rā arotake Planned review date | [dd mm yyyy] | | |

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