

<b>Title</b>	<b>Design and obtain engineer certification for rope access work</b>		
<b>Level</b>	<b>5</b>	<b>Credits</b>	<b>10</b>

<b>Purpose</b>	<p>This unit standard is intended for people working as advanced operators with extensive experience in the application of advanced techniques in industrial rope access work.</p> <p>People credited with this unit standard are able to:</p> <ul style="list-style-type: none"> <li>- explain the certification for industrial rope access work and fall protection systems;</li> <li>- carry out a needs analysis, and design layouts, for types of rope access systems;</li> <li>- obtain a Producer Statement Design (PS1) from a structural engineer (CPEng);</li> <li>- issue a Producer Statement Construction (PS3) from the installer; and</li> <li>- obtain a Producer Statement Construction Review (PS4) from a structural engineer (CPEng).</li> </ul>
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<b>Classification</b>	Lifting Equipment > Industrial Rope Access
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<b>Available grade</b>	Achieved
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**Guidance Information**

- 1 All tasks must be carried out in accordance with:
  - a quality management systems;
  - b designer’s requirements and manufacturer’s operating instructions; and government and local government legislation, regulations, bylaws, Health and Safety at Work Act 2015 and New Zealand Standards;
  - c *Industrial Rope Access in New Zealand: Best Practice Guidelines May 2012* available from the website <https://worksafe.govt.nz/>; and
  - d AS/NZS 1891 parts 1 - 4:2009 *Industrial fall-arrest systems and devices*; AS/NZS 4488 parts 1 and 2:1997 *Industrial rope access systems*. New Zealand Standards are available from <http://www.standards.co.nz>, and their subsequent amendments.
  
- 2 Definitions
 

*Advanced rope access work* refers to work that requires knowledge of mathematics and vector forces, as well as comprehensive training and guidance with extensive experience in the application of advanced rope techniques.

*CPEng* refers to a person who is registered with the Institute of Professional Engineers New Zealand (IPENZ) and holds a current registration certificate under Chartered Professional Engineers of New Zealand Act 2002.

*Producer statement design (PS1)* refers to a document that is intended for use by a suitably qualified independent design professional in circumstances where the Building Consent Authorities (BCAs) accept a producer statement for establishing reasonable grounds to issue a building consent.

*Producer statement construction (PS3)* refers to a form commonly used as a certificate of completion of building work are Schedule 6 of NZS 3910:2013 or Schedules E1/E2 of NZIA's SCC 2011.

*Producer statement construction review (PS4)* refers to a document intended for use by a suitably qualified independent design professional who undertakes construction monitoring of the building works where the BCA requests a producer statement prior to issuing a Code of Compliance.

### 3 Training and assessment

People working towards, and being assessed against, this unit standard should note that work in the industrial rope access industry usually takes place at heights well above ground level and, therefore, requires a level of physical fitness and ability to work at heights.

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## Outcomes and performance criteria

### Outcome 1

Explain the certification for industrial rope access work and fall protection systems.

#### Performance criteria

- 1.1 Explain the CPEng's liabilities when issuing a PS1 and a PS4 in accordance with the best practice guidelines and the New Zealand Standards.
- 1.2 Explain the installer's liabilities when issuing a PS3 in accordance with the best practice guidelines and the New Zealand Standards.

### Outcome 2

Carry out a needs analysis, and design layouts, for types of rope access systems.

Range rope access systems, fall arrest systems, fall restraint systems.

#### Performance criteria

- 2.1 Perform needs analysis to determine requirements of all potential users.  
  
Range roof mounted equipment servicing, roof maintenance, elevation maintenance.
- 2.2 Design layout of anchors and/or lifelines to meet user requirements.  
  
Range layouts to provide – safe access, protection from pendulum falls.

2.3 Determine substrates for the attachment of anchors and/or lifelines.

Range concrete, steel, timber.

**Outcome 3**

Obtain a Producer Statement Design (PS1) from a CPEng.

**Performance criteria**

3.1 Determine substrate characteristics where the rope access work is to be performed.

Range strength, durability, condition.

3.2 Provide anchor specifications and substrate characteristics to the CPEng for a PS1.

**Outcome 4**

Issue a Producer Statement Construction (PS3) from the installer.

**Performance criteria**

4.1 Review PS1 design requirements by the CPEng and compare to the installed system.

4.2 Apply a quality assurance process to check compliance to the PS1.

4.3 Issue a PS3 format document in accordance with the New Zealand Standard 3910:2013.

**Outcome 5**

Obtain a Producer Statement construction review (PS4) from a CPEng.

**Performance criteria**

5.1 Provide specifications of the system to the CPEng that the PS1 has been followed in accordance with the BCA requirements.

5.2 Request the completed and signed PS4 from the CPEng to meet compliance requirements.

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<b>Planned review date</b>	31 December 2025
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**Status information and last date for assessment for superseded versions**

Process	Version	Date	Last Date for Assessment
Registration	1	10 December 2020	N/A

<b>Consent and Moderation Requirements (CMR) reference</b>	0003
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

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**Comments on this unit standard**

Please contact The Skills Organisation [reviewcomments@skills.org.nz](mailto:reviewcomments@skills.org.nz) if you wish to suggest changes to the content of this unit standard.