

<b>Title</b>	<b>Apply quality control concepts to abrasive blasting and protective coatings on electricity structures</b>		
<b>Level</b>	<b>4</b>	<b>Credits</b>	<b>10</b>

<b>Purpose</b>	People credited with this unit standard are able to: describe and apply quality control concepts to abrasive blasting and protective coatings on an electricity structure; demonstrate knowledge of protective coating measurement techniques; and describe abrasive blasting and protective coating quality control documentation.
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<b>Classification</b>	Electricity Supply > Electricity Supply - Transmission Networks
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<b>Available grade</b>	Achieved
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### Guidance Information

- 1 Evidence presented for assessment against this unit standard must be consistent with safe working practices and be in accordance with applicable legislative and industry requirements.
- 2 Legislation, regulations, and /or industry standards relevant to this unit standard include but are not limited to:
  - Electricity Act 1992
  - Health and Safety at Work Act 2015
  - Electricity supply industry codes of practice and documented enterprise procedures, including *Safety Manual – Electricity Industry (SM-EI)* and relevant EEA guides available at [www.eea.co.nz](http://www.eea.co.nz)
  - AS/NZS 2312.1:2014, *Guide to the protection of structural steel against atmospheric corrosion by the use of protective coatings - Part 1: Paint coatings* and any subsequent amendments and replacements.
- 3 Definitions  
*Asset owner* refers to a participant who owns or operates assets used for generating or conveying electricity.  
*Industry requirements* include all asset owner requirements; manufacturers' specifications; and enterprise requirements which cover the documented workplace policies, procedures, specifications, and business and quality management requirements relevant to the workplace in which assessment is carried out.
- 4 Assessment of practical skills against the outcomes in this standard requires three practical observations from three different workplace activities in an electricity supply environment.

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## Outcomes and performance criteria

### Outcome 1

Describe and apply quality control concepts to abrasive blasting and protective coatings on an electricity structure.

#### Performance criteria

- 1.1 Quality control tools used for abrasive blasting and protective coating determination are described.
- 1.2 Workplace operations essential to quality control are identified and described.
- 1.3 Quality control is described in terms of preventing and detecting defects in abrasive blasting and protective coatings.
- 1.4 Quality control is explained in terms of identifying causes of protective coating failures.
- 1.5 Quality control procedures are applied to abrasive blasting and protective coatings on an electricity structure.

### Outcome 2

Demonstrate knowledge of protective coating measurement techniques.

#### Performance criteria

- 2.1 Coating film thickness measurement is described in terms of wet and dry readings.
- 2.2 Calculations are performed to determine the required dry and wet coating film thickness.
- 2.3 Instruments used for measuring coating parameters are identified and their methods are described in accordance with instruments manufacturer's instructions.  
  
Range may include but is not limited to – film thickness, adhesion, hardness, porosity.
- 2.4 Measurement techniques are applied to determine the specified wet and dry protective coating thickness in accordance with manufacturer's requirements.

### Outcome 3

Describe abrasive blasting and protective coating quality control documentation.

## Performance criteria

- 3.1 The importance of keeping accurate quality records on electricity structures is described in accordance with company and asset owner's procedures and AS/NZS 2312.
- 3.2 Accurate recording of on-site quality control is demonstrated in accordance with company and asset owner's procedures.

<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	20 August 2015	31 December 2020
Review	2	28 September 2017	N/A
Rollover and Revision	3	2 March 2023	N/A

<b>Consent and Moderation Requirements (CMR) reference</b>	0120
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

## Comments on this unit standard

Please contact Waihangā Ara Rau Construction and Infrastructure Workforce Development Council at [qualifications@WaihangāAraRau.nz](mailto:qualifications@WaihangāAraRau.nz) if you wish to suggest changes to the content of this unit standard.