

Title	Demonstrate basic knowledge of coal quality assurance		
Level	2	Credits	5

Purpose	People credited with this unit standard are able to: explain the impact of geology on coal quality; and demonstrate knowledge of coal utilisation and coal quality assurance.
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Classification	Extractive Industries > Extractive Industries Management
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Available grade	Achieved
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Guidance Information

None.

Outcomes and performance criteria

Outcome 1

Explain the impact of geology on coal quality.

Performance criteria

- 1.1 The formation of coal seams is explained in terms of its impact on coal quality.
- Range incipient coal quality formation in peat, coal basins, partings and splits in seams.
- 1.2 Coal seam composition is explained in terms of its impact on coal quality.
- Range coal seam composition – coal rank, petrography, fixed carbon, moisture, ash, sulphur, specific energy, ash chemistry, coking properties.
- 1.3 Contaminants from mining are explained in terms of their impact on coal quality.
- Range roof and floor dilution, rubbish, moisture.

Outcome 2

Demonstrate knowledge of coal utilisation.

Performance criteria

- 2.1 The significance of customer's specifications is explained in terms of coal utilisation.
- 2.2 Utilisation of thermal coal is explained in terms of industrial boilers, electric power generation, and cement manufacture.
- 2.3 Utilisation of coking coal and coal for steel making are explained in terms of blast furnaces, and electric arc furnaces.
- 2.4 Utilisation of specialist coals is explained in terms of anode carbon, activated carbon, carbon fibre, and silicon metal manufacture.

Outcome 3

Demonstrate knowledge of coal quality assurance.

Performance criteria

- 3.1 Avoiding contamination in mining is explained in terms of coal quality assurance.
- Range dilution, excessive water, housekeeping.
- 3.2 Carrying out mining operations in accordance with specified mining plans is explained in terms of coal quality assurance.
- 3.3 Notification and separation of contaminated coal are explained in terms of coal quality assurance.

Planned review date	31 December 2022
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	24 February 2003	31 December 2019
Review	2	23 April 2007	N/A
Rollover	3	25 January 2018	N/A

Consent and Moderation Requirements (CMR) reference	0114
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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 MITO New Zealand Incorporated info@mito.org.nz if you wish to suggest changes to the content of this unit standard.