

Title	Demonstrate knowledge of the process and procedures for bitumen product manufacturing		
Level	4	Credits	10

Purpose	People credited with this unit standard are able to demonstrate knowledge of the process and procedures for bitumen product manufacturing.
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Classification	Infrastructure Works > Bituminous Product Manufacturing
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Available grade	Achieved
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Guidance Information

- 1 Learning and assessment for this unit standard must be in accordance with the following:
 - Health and Safety at Work Act 2015;
 - Health and Safety at Work (Hazardous Substances) Regulations 2017;
 - Notices for hazardous substances 2017 – Environmental Protection Authority (EPA);
 - Resource Management Act 1991;
 - Best Practice Guideline: Safe Handling of Bituminous Materials Used for Roothing (BPG01);
 - The Bitumen Safety Handbook; Civil Contractors New Zealand (CCNZ);
 - Workplace Traffic Management (Worksafe);
 - Specification for Performance-Graded Asphalt Binder, NZTA MO1-A:2019; and all subsequent amendments and replacements.

- 2 Definitions

Company requirements include the policy, procedures, and methodologies of the company. They include legislative and regulatory requirements applicable to the company or to a specific site. Requirements are documented in the company's health and safety plans, environmental plans, traffic management plans, contract work programmes, quality assurance programmes, policies, and procedural documents.

Original equipment manufacturer (OEM) refers to a company that produces parts and equipment that may be marketed by another manufacturer. It can also refer to the maker of a system that includes other companies' subsystems or an end-product producer.

Outcomes and performance criteria

Outcome 1

Demonstrate knowledge of the process and procedures for bitumen product manufacturing.

Performance criteria

- 1.1 The process for bitumen product manufacturing is explained in terms of the components and safe practices in accordance with industry standards, OEM and company requirements.
- Range process and components may include but are not limited to – storage tanks, soap tank, heating, mixers, blending, homogenisation, filters, feeders, feed pumps, energy control systems, tank levels, valve controls, flow meters, control panel, sampling, testing, transfer, delivery.
- 1.2 Procedures for the storage of liquid bituminous products are explained in terms of maintaining product quality.
- Range short-term, long-term, elevated temperature, extended heating, stirring, heating from cold.
- 1.3 Procedures for heating of liquid bituminous products are explained in terms of heating systems, method, safe operation, and energy conservation in accordance with BPG01.
- 1.4 Procedures for emergencies and plant shutdown are explained in accordance with company requirements.
- 1.5 Process for blending of liquid bitumen and additives is explained in accordance with BPG01 and/or company requirements.
- 1.6 Handling of liquid bituminous products is explained in terms of pumping and transferring systems and processes in accordance with BPG01, company requirements and EPA notices.
- 1.7 Process control equipment for liquid bitumen is described in terms of how it works.
- 1.8 Process control equipment is described in terms of the safety checks required before transferring bitumen and how to rectify problems.

Planned review date	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	26 November 2020	N/A

Consent and Moderation Requirements (CMR) reference	0101
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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 Connexis - Infrastructure Industry Training Organisation
qualifications@connexis.org.nz if you wish to suggest changes to the content of this unit standard.