
CIVIL PLANT OPERATION
**Operate wheeled loader in asphalt
production, pavement surfacing, or
extractive industry environment**

level:	3
credit:	12
planned review date:	October 2009
sub-field:	Civil Plant Operation and Management
purpose:	<p>This unit standard is for people operating wheeled loaders in the pavement surfacing or extractive industries.</p> <p>People credited with this unit standard are able to: demonstrate knowledge of wheeled loaders; identify, assess, control, and monitor health and safety hazards and adverse effects on the environment of wheeled loader operations at an asphalt production, pavement surfacing, or extractive industry workplace; perform operator servicing and maintenance on a wheeled loader; start, manoeuvre, stop, and park a wheeled loader, and use a wheeled loader at an asphalt production, pavement surfacing, or extractive industry workplace.</p>
entry information:	Open.
accreditation option:	Evaluation of documentation and visit by NZQA and industry.
moderation option:	A centrally established and directed national moderation system has been set up by Infrastructure ITO.
special notes:	<p>1 The following legislation must be complied with: Health and Safety in Employment Act 1992; Land Transport Act 1998; Resource Management Act 1991; Transport Act 1962; Health and Safety in Employment Regulations 1995; Traffic Regulations 1976.</p>

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- 2 When working on the road candidates must hold a current full driver licence of the appropriate class for the gross vehicle mass of the vehicle to be used for assessment and, where required by legislation, the appropriate licence endorsement for the vehicle being driven.
- 3 Personal protective equipment must be used throughout operations in accordance with company procedures.
- 4 Manufacturer's instructions for the operation of wheeled loaders and the current version of the *Operator Safety Manual for Earthmoving Machinery*, New Zealand Contractors' Federation available at <http://www.nzcontractors.org.nz>, must be followed.
- 5 This unit standard does not include some specific skills required in the civil construction industry. These skills are in Unit 17309, *Operate a wheeled loader on civil construction sites*.
- 6 Assessment against this unit standard must be based on evidence from a pavement surfacing or extractives industry workplace context.
- 7 Definitions
company procedures refers to all documented policies, procedures and methodologies of the candidate's employer at the time of training including but not limited to those relating to health, safety, environment, quality, and operations;
walk round means to walk around a machine or equipment inspecting it and its environment for hazards and removing hazards that may impair operation.

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Elements and Performance Criteria

element 1

Demonstrate knowledge of wheeled loaders.

performance criteria

- 1.1 Types of wheeled loader are described in terms of their operational differences.

Range: two-wheel drive, four-wheel drive, skid steer, rubber-tyred, articulated frame.
- 1.2 Description of wheeled loader components includes operator access, cab, and controls; operator protection equipment; grab handles; access to engine compartment; engine and transmission; wheels and tyres; bucket; tilt and lift arms and rams; and pivot link and rams.
- 1.3 Wheeled loaders are described in terms of matching machine capacity with job requirements.

element 2

Identify, assess, control, and monitor health and safety hazards and adverse effects on the environment of wheeled loader operations at an asphalt production, pavement surfacing, or extractive industry workplace.

performance criteria

- 2.1 Health hazards are identified and the procedures and equipment for controlling them are described in accordance with company procedures and legislation.
- 2.2 Safety hazards are identified and the procedures and equipment for controlling them are described in accordance with the *Operator Safety Manual*, company procedures and legislation.

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- 2.3 Adverse effects on the environment are identified and the procedures and equipment for controlling them are described in accordance with company procedures and legislation.
- 2.4 Health and safety hazards and adverse effects on the environment are assessed, controlled and monitored in accordance with company procedures and legislation.
- 2.5 Adverse effects on the environment are assessed, controlled and monitored in accordance with company procedures and legislation.

element 3

Perform operator servicing and maintenance on a wheeled loader.

performance criteria

- 3.1 Machinery is checked for operator servicing requirements, and minor adjustments are made, in accordance with manufacturer's instructions.
- Range: may include but is not limited to – fuel, lubricants, water levels, hydraulic fluid level, cleanliness, nuts and bolts, attachment couplings, machine controls and gauges.
- 3.2 Where routine servicing indicates that it is required, special maintenance is reported to specialist mechanic or supervisor in accordance with company procedures.
- Range: may include but is not limited to – tyres, batteries, fuel lines, coolants, hydraulic pressure.
- 3.3 Routine servicing and maintenance are documented in accordance with company procedures.

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element 4

Start, manoeuvre, stop, and park a wheeled loader.

performance criteria

- 4.1 Machine is mounted and dismounted in accordance with the principle of three points of contact.
- 4.2 Prestart safety and operational checks are carried out in accordance with manufacturer's instructions and company procedures.
- Range: may include but is not limited to – walk round, startup, check gauges and controls, cleanliness of windows.
- 4.3 Startup checks and procedures are followed in accordance with machine manufacturer's instructions and company procedures.
- 4.4 Machine is manoeuvred in accordance with manufacturer's instructions, *Operator Safety Manual*, and company procedures.
- Range: includes but is not limited to – safe travel speed, turning, reversing, travelling on sloping ground.
- 4.5 Shutdown procedures are followed in accordance with manufacturer's instructions.
- 4.6 Machine is parked in accordance with manufacturer's instructions.
- Range: parking includes locking, blocking of wheels, and securing machine;
on ground or on transporter.

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element 5

Use a wheeled loader at an asphalt production, pavement surfacing, or extractive industry workplace.

Range: materials may include but are not limited to – asphaltic concrete, sealing chip, and graded aggregate as appropriate for the task.

performance criteria

5.1 Material is loaded to truck with minimal spillage in accordance with company procedures and *Operator Safety Manual*.

5.2 Material is loaded to hopper with minimal spillage in accordance with company procedures and contract specifications.

5.3 Material is carried with minimal spillage in accordance with company procedures and *Operator Safety Manual*.

Range: carrying may include but is not limited to – maintaining visual awareness, selecting a clear route, reversing, keeping load low.

5.4 Material is dumped in accordance with company procedures, *Operator Safety Manual*, and manufacturer's instructions.

5.5 Material is stockpiled without contamination in accordance with company procedures and contract specifications.

Range: includes but is not limited to – segregation of stockpiles.

5.6 Materials are mixed in stockpiles in accordance with company procedures and contract specifications.

5.7 Materials are mixed and spread in accordance with company procedures and contract specifications.

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Comments on this unit standard

Please contact Infrastructure ITO askus@infratrain.co.nz if you wish to suggest changes to the content of this unit standard.

Please Note

Providers must be accredited by the Qualifications Authority or a delegated inter-institutional body before they can register credits from assessment against unit standards or deliver courses of study leading to that assessment.

Industry Training Organisations must be accredited by the Qualifications Authority before they can register credits from assessment against unit standards.

Accredited providers and Industry Training Organisations assessing against unit standards must engage with the moderation system that applies to those standards.

Accreditation requirements and an outline of the moderation system that applies to this standard are outlined in the Accreditation and Moderation Action Plan (AMAP). The AMAP also includes useful information about special requirements for providers wishing to develop education and training programmes, such as minimum qualifications for tutors and assessors, and special resource requirements.

This unit standard is covered by AMAP 0101 which can be accessed at <http://www.nzqa.govt.nz/site/framework/search.html>.