



Australian Government

Department of Education, Employment and Workplace Relations

BCCPO3016B Conduct dump truck operations

Release: 1

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Modification History

Unit Descriptor

This unit specifies the competency required to conduct civil construction dump truck operations. It includes the minimum criteria for competency assessment.

The unit covers planning and preparation for work, the conduct of operational checks, the safe and effective operation of the dump truck for a range of mandatory tasks, and the conduct of operator maintenance and work finalisation activities.

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Application of the Unit

Licensing/Regulatory Information

Pre-Requisites

Employability Skills Information

The required outcomes described in this Unit of Competency contain applicable facets of employability skills. The Employability Skills Qualification Summary for the qualification in which this Unit of Competency is packaged will assist in identifying employability skill requirements.

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Elements and Performance Criteria Pre-Content

Elements define the essential outcomes of a unit of competency.

Performance criteria specify the level of performance required to demonstrate achievement of the element.

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Elements and Performance Criteria

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Element	Performance Criteria
1 Plan and prepare	<p>1.1 Work instructions, including plans, specifications, quality requirements and operational details are obtained, confirmed and applied to the allotted task</p> <p>1.2 Safety requirements are obtained from the site safety plan and organisational policies and procedures, confirmed and applied to the allotted task</p> <p>1.3 Signage requirements are identified and obtained from the project traffic management plan and implemented</p> <p>1.4 Vehicle, tools and equipment selected to carry out tasks are consistent with the requirements of the job, checked for serviceability and any faults are rectified or reported</p> <p>1.5 Environmental protection requirements are identified from the project environmental management plan, confirmed and applied to the allotted task</p>
2 Conduct machine pre-operational checks	<p>2.1 Pre-start, start up, park and shut down procedures are carried out in accordance with manufacturers' and/or site specific requirements</p> <p>2.2 Dump truck controls and functions, including tray, articulation, brakes and manoeuvrability are checked for serviceability and any faults are rectified or reported</p>
3 Operate truck	<p>3.1 Site hazards associated with dump truck operations are identified and safe operating techniques are used to minimise risk</p> <p>3.2 Engine power is managed to ensure efficiency of truck movements and to minimise damage to the engine and gears</p> <p>3.3 Engine power is coordinated with gear selection ensuring smooth transition and operation within torque range</p>

- 3.4 Dump truck is operated to work instructions under varied site and weather conditions in accordance with safe work practices and company operating procedures
- 3.5 Road/traffic conditions are constantly monitored taking into account of road standards, traffic flow, distance and load, ensuring no injury to people or damage to property, equipment, loads and facilities
- 3.6 Vehicle is brought to a halt without injury to personnel or damage to property, equipment and loads, through the use of engine retarder, gears and brakes using straight line braking techniques
- 3.7 Responsibility for self-direction to achieve finished product to job/design specification is assumed
- 4 Load, transport and tip materials
 - 4.1 Vehicle is positioned at load and discharge points with a minimum of manoeuvre
 - 4.2 Dump truck movements including the raising and lowering of the tray are smooth and controlled
 - 4.3 Weight and distribution of load is assessed for type of material and size of vehicle to ensure it is within vehicle capacity
 - 4.4 Safety and security of load, including load cover requirements, are maintained from loading site to discharge site
 - 4.5 Load is discharged on slope and/or over face at fill site in accordance with company procedures
 - 4.6 Material is dumped/spread evenly in accordance with company procedures
 - 4.7 Tray is cleared, lowered and secured before resuming travel in accordance with manufacturers' instructions
- 5 Carry out driver maintenance
 - 5.1 Dump truck is safely parked, prepared for maintenance and shut down in accordance with manufacturers' manual and organisational requirements
 - 5.2 Inspection and fault finding are conducted in accordance with manufacturers' specifications

and/or organisational requirements

- 5.3 Defective parts are removed and replaced safely and effectively according to manufacturers' manual and organisational requirements
 - 5.4 Regular programmed maintenance tasks are carried out in accordance with manufacturers' and/or organisational requirements
- 6 Clean up
- 6.1 Work area is cleared and materials disposed of or recycled in accordance with project environmental management plan
 - 6.2 Vehicle, tools and equipment are cleaned, checked, maintained and stored in accordance with manufacturers' recommendations and standard work practices

Required Skills and Knowledge

Evidence Guide

The Evidence Guide identifies the critical aspects, knowledge and skills to be demonstrated to confirm competency for this unit. This is an integral part of the assessment of competency and should be read in conjunction with the Performance Criteria, the Range Statement, and the Assessment Guidelines of the Training Package.

Critical aspects of evidence required to demonstrate competency in this unit

Location, interpretation and application of relevant information, standards and specifications

Compliance with site safety plan, OH&S regulations and State/Territory legislation applicable to workplace operations

Compliance with organisational policies and procedures including quality requirements

The conduct of site based dump truck operations which are to be under both wet and dry conditions and include:

transporting soil, rock and material,

static and mobile dumping,

discharging on slopes, and

discharging over edges

where at least one load is prone to hangup and one to free flow

The application of emergency procedures

The conduct of authorised operator maintenance

Communication and working effectively and safely with others

Relationship to other units

Pre-requisite units are:

BCCCM1001C Follow OH&S policies and procedures

Competency in this unit may be assessed in conjunction with other functional units which together form part of the holistic work role

Specific knowledge required to achieve the performance criteria

A knowledge of

- Dump truck types, characteristics, technical capabilities and limitations
- Basic principles of soil technology for civil works
- Site and equipment safety requirements
- Dump truck operational techniques related to essential tasks
- Processes for interpreting engineering drawings and sketches
- Operational, maintenance and basic diagnostic procedures
- Site isolation and traffic control responsibilities and authorities
- Materials Safety Data Sheets and materials handling methods
- Project quality requirements
- Civil construction terminology
- Methods of changing machine attachments
- Safe operating techniques in all terrain
- Basic earthworks calculations
- Civil construction activity sequences of road construction, earthworks and drainage
- JSA's/Safe work method statement

The context of assessment

The application of competency is to be assessed in the workplace or realistically simulated construction site

Assessment is to occur under standard and authorised work practices, safety requirements and environmental constraints

Assessment of essential underpinning knowledge, other than confirmatory questions, will usually be conducted in an off-site context

Assessment is to comply with relevant regulatory or Australian Standards requirements

Methods of assessment

Assessment must satisfy the endorsed assessment guidelines of the Building and Construction industry's Civil Construction Training Package and relevant NOHSC standards where they apply

Assessment methods must confirm consistency and accuracy of performance (over time and in a range of workplace relevant contexts) together with application of underpinning knowledge

Assessment must be by direct observation of tasks, with questioning on underpinning knowledge

Assessment methods must confirm the ability to access and correctly interpret and apply the essential underpinning knowledge

Assessment may be applied under project related conditions and require evidence of process

Assessment must confirm a reasonable inference that competency is able not only to be satisfied under the particular circumstance, but is able to be transferred to other circumstances

Assessment may be in conjunction with assessment of other units of competency, including those listed above

Specific resource requirements for this unit

The following resources should be made available:

workplace location or simulated workplace

an operational dump truck

realistic tasks and loads covering the mandatory task requirements

maintenance materials appropriate to the dump truck equipment

specifications and work instructions

... **End** …

Range Statement

Range Statement

The Range Statement provides advice to interpret the scope and context of this unit of competency allowing for differences between enterprises and workplaces. It relates to the unit as a whole and facilitates holistic assessment. The following variables relate to this particular unit:

Unit scope

Dump trucks are primarily off-road large capacity vehicles which may be electrical/mechanical and which are generally operated on a site permit basis

Dump trucks, due to their size, are transported between sites

Dump truck tasks are to include transporting soil, rock and material, static and mobile dumping, discharging on slopes and discharging over edges

Dump truck tasks may include discharging into bins and hoppers and spreading aggregate

Operator maintenance is to include cleaning, authorised servicing and the monitoring, recording and reporting of faults. It may also include the conduct of authorised minor replacements and the provision of assistance to maintenance personnel during maintenance and repair activities

Safety (OH&S)

OH&S requirements are to be in accordance with State or Territory legislation and regulations, organisational safety policies and procedures, and project safety plan. This may include protective clothing and equipment, use of tools and equipment, workplace environment and safety, handling of materials, use of fire fighting equipment, use of first aid equipment, hazard control and hazardous materials and substances

Personal protective equipment is to include that prescribed under legislation, regulation and workplace policies and practices

Safe operating procedures are to include but not be limited to recognising and preventing

hazards associated with fill-site traffic movement, overhead services, other machines, personnel, restricted access barriers, traffic control, working at heights, working in proximity to others, worksite visitors and the public

Safe parking practices are to include but not be limited to ensuring access ways are clear, equipment/ machinery is away from overhangs and refuelling sites, safe distance from excavations, and secured from unauthorised access or movement

Hazards and risks may include but not be limited to uneven/unstable terrain, trees, fires, overhead and underground services, bridges, buildings, excavations, traffic, embankments, cuttings, structures and hazardous materials

Emergency procedures related to this unit are to include but may not be limited to emergency shutdown and stopping, extinguishing fires, organisational first aid requirements and evacuation

Environmental Requirements

Environmental requirements are to include but are not limited to organisational/project environmental management plan, waste management, water quality protection, noise, vibration, dust and clean-up management

Quality Requirements

Quality requirements may include but not be limited to dimensions, tolerances, standards of work and material standards as detailed in the project drawings, specifications and project documentation to meet client satisfaction

Statutory/Regulatory Authorities

Statutory/regulatory authorities may include statutory/regulatory Government authorities, Local Government statutory authorities

Materials

Materials may include but are not limited to clays, silts, stone, gravel, mud, rock, sand, topsoil and bituminous mixes

Rock types may include metamorphic,

igneous and sedimentary

Tools and equipment

Tools and equipment are to include the hand tools and maintenance equipment associated with the particular dump truck

Communications

Communications are to include but not be limited to verbal instructions and fault reporting and may include two way radio, hand signals, mobile phone, site specific instructions, written instructions or instructions related to job/task

On site meeting processes may include notification/ scheduling (time, place, purpose), task discussions and local coordination of procedural and operational issues

Information

Information sources may include but not be limited to verbal or written and graphical instructions, signage, work schedules/plans/specifications, work bulletins, charts and hand drawings, memos, maps, material safety data sheets (MSDS) and diagrams or sketches

Safe work procedures related to the operation of dump trucks on construction sites

Regulatory/legislative requirements pertaining to dump truck operations and the environment

Manufacturers' specifications and instructions

Organisation work specifications and requirements.

Instructions issued by authorised organisational or external personnel

Relevant Australian Standards

Unit Sector(s)