



Australian Government

Department of Education, Employment and Workplace Relations

RIIVEH304A Conduct tip truck operations

Release: 1

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Modification History

Not applicable.

Unit Descriptor

This unit covers the conduct of tip truck operations in the resources and infrastructure industries. It includes planning and preparing, conducting pre-operational checks, operating a tip truck, loading, transporting and tipping materials, carrying out driver maintenance, and cleaning up. Licensing, legislative, regulatory and certification requirements that apply to this unit can vary between states, territories, and industry sectors. Relevant information must be sourced prior to application of the unit.

Application of the Unit

This unit is appropriate for those working in an operational role at worksites within:

- Civil construction
- Coal mining
- Drilling
- Extractive industries
- Metalliferous mining

Licensing/Regulatory Information

Refer to Unit Descriptor.

Pre-Requisites

Not applicable.

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Plan and prepare	<p>1.1. Access, interpret and apply <i>compliance documentation and procedures</i> relevant to the work activity</p> <p>1.2. Work instructions, including plans, specifications, <i>quality requirements</i> and operational details are obtained, confirmed and applied to the allocated task</p> <p>1.3. Signage requirements are identified and obtained from the project traffic management plan and implemented</p> <p>1.4. Vehicle, <i>tools and equipment</i> selected to carry out <i>tip truck tasks</i> 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 allocated task</p>
2. Conduct machine pre-operational checks	<p>2.1. Pre-start, start-up, park and shutdown procedures are carried out</p> <p>2.2. Tip truck controls and functions, including tray, steering, 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 tip 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> <p>3.4. <i>Tip truck</i> is operated to work instructions</p> <p>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</p> <p>3.6. Vehicle is brought to a halt smoothly,</p>

	<p>minimising the wear and tear on vehicle using the engine retarder, gears and brakes</p>
4. Load, transport and tip materials	<p>4.1. Vehicle is positioned at load and discharge points with a minimum of manoeuvre</p> <p>4.2. Tip truck movements including the raising and lowering of the tray are smooth and controlled</p> <p>4.3. Weight and distribution of load is assessed for type of material and size of vehicle to ensure it is within vehicle capacity</p> <p>4.4. Safety and security of load, including load cover requirements, are maintained from loading site to discharge site</p> <p>4.5. Load is discharged on slope and/or over face at fill site</p> <p>4.6. Material is dumped/spread evenly to work instructions</p> <p>4.7. Tray is cleared, lowered and secured before resuming travel</p>
5. Carry out operator maintenance	<p>5.1. Tip truck is safely parked, prepared for maintenance and shutdown</p> <p>5.2. Inspection and fault finding are conducted</p> <p>5.3. Defective parts are removed and replaced safely and effectively</p> <p>5.4. Regular programmed maintenance tasks are carried out</p>
6. Clean up	<p>6.1. Work area is cleared and materials disposed of or recycled</p> <p>6.2. Vehicle, tools and equipment are cleaned, checked, maintained and stored</p>

Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

Required skills

Specific skills are required to achieve the Performance Criteria of this unit, particularly for its application in the various circumstances in which this unit may be used. This includes the ability to carry out the following as required to conduct tip truck operations:

- apply legislative, organisation and site requirements and procedures for conducting tip truck operations

Required knowledge

Specific knowledge is required to achieve the Performance Criteria of this unit, particularly for its application in the various circumstances in which this unit may be used. This includes knowledge of the following as required to conduct tip truck operations:

- tip truck types, characteristics, technical capabilities and limitations
- basic principles of soil technology for civil works
- site and equipment safety requirements
- tip truck operational techniques related to essential tasks
- processes for interpreting drawings and sketches
- operational, maintenance and basic diagnostic procedures
- site isolation and traffic control responsibilities and authorities
- materials safety data sheet and materials handling methods
- safe operating techniques in all terrain
- basic earthworks calculations
- civil construction activity sequences of road construction, earthworks and drainage
- load quantity calculations
- JSA's/safe work method statement

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>The evidence required to demonstrate competency in this unit must be relevant to worksite operations and satisfy all of the requirements of the performance criteria, required skills and knowledge and the range statement of this unit and include evidence of the following:</p> <ul style="list-style-type: none"> • knowledge of the requirements, procedures and instructions for conducting tip truck operations • implementation of requirements, procedures and techniques for the safe, effective and efficient conduct of tip truck operations • working with others to undertake and complete the conduct of tip truck operations that meets all of the required outcomes • consistent timely completion of tip truck operations that safely, effectively and efficiently meets the required outcomes
Context of and specific resources for assessment	<ul style="list-style-type: none"> • This unit must be assessed in the context of the work environment. Where personal safety or environmental damage are limiting factors, assessment may occur in a simulated environment provided it is realistic and sufficiently rigorous to cover all aspects of workplace performance, including task skills, task management skills, contingency management skills and job role environment skills. • Assessment of this competency requires typical resources normally used in a resources and infrastructure sector environment. Selection and use of resources for particular worksites may differ due to the site circumstances. • The assessment environment should not disadvantage the participant. For example, language, literacy and numeracy demands of assessment should not be greater than those required on the job. • Customisation of assessment and delivery environment should sensitively accommodate

	<p>cultural diversity.</p> <ul style="list-style-type: none"> • Aboriginal people and other people from a non English speaking background may have second language issues. • Where applicable, physical resources should include equipment modified for people with disabilities. Access must be provided to appropriate learning and/or assessment support when required.
Method of assessment	<p>This unit may be assessed in a holistic way with other units of competency. The assessment strategy for this unit must verify required knowledge and skill and practical application using more than one of the following assessment methods:</p> <ul style="list-style-type: none"> • written and/or oral assessment of the candidate's required knowledge • observed, documented and/or first hand testimonial evidence of the candidate's: <ul style="list-style-type: none"> • implementation of appropriate requirements, procedures and techniques for the safe, effective and efficient achievement of required outcomes • consistent achievement of required outcomes • first hand testimonial evidence of the candidate's: <ul style="list-style-type: none"> • working with others to undertake and complete tip truck operations
Guidance information for assessment	<p>Consult the SkillsDMC User Guide for further information on assessment including access and equity issues.</p>

Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Compliance documentation and procedures may include:

- legislative, organisation and site requirements and procedures
- manufacturer's guidelines and specifications
- Australian standards
- OHS requirements including 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
- safe operating procedures including (but not 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 including (but not 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 including (but not 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 including (but not limited to) emergency shutdown and stopping, extinguishing fires, organisational First Aid requirements and evacuation
- environmental requirements including (but not limited to) organisational/project environmental management plan, waste management, water quality protection, noise,

	<ul style="list-style-type: none"> vibration, dust and clean-up management • Employment and workplace relations legislation • Equal Employment Opportunity and Disability Discrimination legislation
Quality requirements may include:	<ul style="list-style-type: none"> • dimensions, tolerances, standards of work and material standards as detailed in the project drawings, specifications and project documentation to meet client satisfaction
Tools and equipment includes:	<ul style="list-style-type: none"> • the hand tools and maintenance equipment associated with the particular tip truck
Tip truck tasks should include:	<ul style="list-style-type: none"> • the transporting and tipping of soils, sand, rocks and construction gravels on public roads and worksites • static tipping and mobile tipping and spreading, discharging/tipping on slopes and discharging/tipping over edges • discharging into bins and hoppers and spreading aggregate
Tip trucks may include:	<ul style="list-style-type: none"> • self-propelled vehicle designed for on road use to transport a variety of construction materials to and from construction sites • vehicles that are rigid (with or without a dog trailer) or articulated • various configurations of tip trucks, the number of vehicle axles, the weight of each vehicle and load capacities are dependent on the vehicle class • loads that are normally discharged by tipping from the rear of the vehicle or trailer but, methods of material discharge may also include side and belly dumping • National Licence Classes for trucks are: <ul style="list-style-type: none"> • MR (Medium rigid) - a vehicle (2 axle only) which is greater than 8t GVM, plus a trailer of not more than 9t GVM • HR (Heavy Rigid) - a vehicle (no axle limit) which is greater than 8t GVM, plus a trailer of not more than 9t GVM • HC (Heavy combination) - a heavy rigid vehicle with a trailer greater than 9t GVM or a prime mover and semi trailer
Materials may include:	<ul style="list-style-type: none"> • materials may include but are not limited to clays, silts, stone, gravel, mud, rock, sand,

	<p>topsoil, bituminous mixes, timber, blended materials, organic materials, typical construction site materials/waste and aggregates</p> <ul style="list-style-type: none">• rock types may include metamorphic, igneous and sedimentary
Operator maintenance may include:	<ul style="list-style-type: none">• cleaning, authorised servicing and the monitoring, recording and reporting of faults• the conduct of authorised minor replacements• the provision of assistance to maintenance personnel during maintenance and repair activities

Unit Sector(s)

Vehicle Operations

Competency field

Refer to Unit Sector(s).

Co-requisite units

Not applicable.