



Australian Government

Department of Education, Employment and Workplace Relations

TLIC2049A Operate heavy vehicle on unsealed roads

Release: 1

TLIC2049A Operate heavy vehicle on unsealed roads

Modification History

Not Applicable

Unit Descriptor

Unit Descriptor

This unit involves the skills and knowledge required to operate a heavy vehicle on unsealed roads safely. It includes systematic and efficient control of all vehicle functions, monitoring of traffic and road conditions, management of vehicle condition and performance, and effective management of hazardous situations whilst operating a heavy vehicle on unsealed surfaces. Licensing, legislative, regulatory or certification requirements are applicable to this unit.

Application of the Unit

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Operation of a heavy vehicle on unsealed roads must be carried out in compliance with the licence requirements and regulations of the relevant state/territory roads and traffic authority pertaining to heavy vehicles.

Operation of a heavy vehicle on unsealed roads is performed with limited or minimum supervision, with accountability and responsibility for self and others in achieving the prescribed outcomes.

Operation of a heavy vehicle on unsealed roads involves the application of routine vehicle driving principles and procedures to maintain the safety and operation of a heavy vehicle across a variety of driving contexts and job roles.

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability Skills 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 required performance needed to demonstrate achievement of the element. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1 Anticipate and make the transfer from sealed to unsealed road surfaces	1.1 Unsealed road surfaces are identified by sight 1.2 Adjustments are made to driving techniques before unsealed surface is encountered 1.3 Vehicle speed and line are adjusted for smooth transition from sealed to unsealed 1.4 Control of vehicle is maintained throughout transition 1.5 Appropriate signage, lights and the like are checked for operational effectiveness on exiting sealed surfaces 1.6 Whilst entering unsealed surfaces the heavy vehicle is managed and operated to ensure effective control of the vehicle
2 Operate the heavy vehicle on unsealed surfaces	2.1 Engine power is managed to ensure efficiency and performance and to minimise engine and transmission damage when operating on unsealed surfaces 2.2 Braking system of the heavy vehicle is managed and operated to ensure effective control of the vehicle whilst operating on unsealed surfaces 2.3 Driving hazards on unsealed surfaces are identified and/or anticipated and avoided or controlled through defensive driving techniques 2.4 Appropriate procedures are followed in the event of a driving emergency 2.5 Heavy vehicle is operated in consideration to the surrounding environmental sensitivity of operating on unsealed roads
3 Anticipate and make the transfer from unsealed to sealed road surfaces	3.1 Sealed road surfaces are identified by sight 3.2 Adjustments are made to driving techniques before sealed surface is encountered 3.3 Vehicle speed and line are adjusted for smooth transition from unsealed to sealed 3.4 Control of vehicle is maintained throughout transition 3.5 Appropriate signage, lights and the like are checked for operational effectiveness on exiting unsealed surfaces 3.6 Whilst exiting unsealed and sealed surfaces the heavy vehicle is managed and operated to ensure effective control of the vehicle 3.7 Heavy vehicle is inspected and cleared of road debris prior to re-entering sealed surfaces

Required Skills and Knowledge

REQUIRED KNOWLEDGE AND SKILLS

This describes the essential knowledge and skills and their level required for this unit.

Required knowledge:

- Relevant road rules, regulations, permit and licence requirements of the relevant state/territory road traffic authority
- Relevant OH&S and environmental procedures and regulations
- Relevant road-bridge classification of unsealed roads
- Heavy vehicle handling procedures
- Workplace driving and operational instructions
- Engine power management and safe driving strategies
- Efficient driving techniques
- Pre-operational checks carried on heavy vehicles and related action
- Differences between transmission types
- Principles of operation of air brakes and procedures for their use
- Driving hazards and related defensive driving techniques
- Factors which may cause traffic delays and diversions, and related action that can be taken by a driver
- Principles of stress management when driving a vehicle
- Causes and effects of fatigue on drivers
- Factors which increase fatigue-related accidents
- Fatigue management strategies including on-road techniques
- Lifestyles which promote the effective long-term management of fatigue

Required skills:

- Communicate effectively with others when operating a heavy vehicle
- Read and interpret instructions, procedures, information and signs relevant to the driving of a heavy vehicle on unsealed roads
- Interpret and follow operational instructions and prioritise work
- Complete documentation related to the operation of a heavy vehicle
- Operate electronic communication equipment to required protocol
- Work collaboratively with others when operating heavy vehicle
- Adapt appropriately to cultural differences in the workplace, including modes of behaviour and interactions with others
- Implement contingency plans for unexpected events when driving a heavy vehicle
- Apply precautions and required action to minimise, control or eliminate hazards that may exist during the driving of a heavy vehicle

Required skills:

- Monitor and anticipate traffic hazards and take appropriate action
- Modify activities depending on differing operational contingencies, risk situations and environments
- Apply fatigue management knowledge and techniques
- Work systematically with required attention to detail without injury to self or others, or damage to goods or equipment
- Operate and adapt to differences in equipment in accordance with standard operating procedures
- Select and use required personal protective equipment conforming to industry and OH&S standards
- Monitor performance of vehicle, its trailers and its equipment and take appropriate action where required
- Service vehicle and its equipment in terms of maintenance schedule and standard operating procedures
- Check and replenish fluids and carry out lubrication processes in the course of work activities

Evidence Guide**EVIDENCE GUIDE**

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

Critical aspects for assessment and evidence required to demonstrate competency in this unit

- The evidence required to demonstrate competency in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria of this unit and include demonstration of:
 - applying the underpinning knowledge and skills
 - applying relevant legislation and workplace procedures
 - using techniques for heavy vehicle operation on unsealed roads
 - identifying requirements for reconditioning of vehicles
 - identifying awareness of environmental sensitivities when driving on unsealed roads
 - identifying techniques for entering and exiting sealed and unsealed road surfaces

Context of and specific resources

- Performance is demonstrated consistently over a period

EVIDENCE GUIDE

for assessment

of time and in a suitable range of contexts

- Resources for assessment include:
 - a range of relevant exercises, case studies and/or other simulated practical and knowledge assessment, and/or
 - access to an appropriate range of relevant operational situations in the workplace
- In both real and simulated environments, access is required to:
 - relevant and appropriate materials and equipment, and
 - applicable documentation including workplace procedures, regulations, codes of practice and operation manuals

Method of assessment

- As a minimum, assessment of knowledge must be conducted through appropriate assessments using written/practical/oral assessments
- Practical assessment must occur:
 - through activities in an appropriately simulated environment, and/or
 - in an appropriate range of situations in the workplace
- A simulator/online assessment is not suitable for the final assessment of this unit of competency

Range Statement

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.

For the purposes of this unit heavy vehicle includes:

- medium ridged
- heavy ridged
- heavy combination
- multi combination

Unsealed road may include:

- an open road
- a private road
- formed unsealed roads
- dirt tracks
- remote areas

RANGE STATEMENT

Operation of a heavy vehicle on unsealed roads may be carried out in typical road transport situations, including:

- workplace or worksite
- by day or night
- in typical weather conditions
- on the open road
- on a private road
- on formed unsealed roads
- on dirt tracks
- in remote areas
- while at a client's workplace or work site

Vehicle handling procedures may include:

- starting a vehicle
- steering and manoeuvring a vehicle
- accelerating and braking
- positioning and stopping a vehicle
- reversing a vehicle
- operating vehicle controls, instruments and indicators
- using air brakes
- using defensive driving techniques
- managing engine performance

Pre-operational checks may include:

- visual check of vehicle
- checks and top up of fluid levels
- checks of tyre pressures
- checks of operation of vehicle lights and indicators
- checks of brakes
- checks of coupling equipment

Hazards could include:

- wet and iced roads
- animals and objects on road
- fire in vehicle
- leaking fuel
- faulty brakes
- parked vehicles on the road
- faulty steering mechanism on vehicle
- pedestrians crossing the road
- flooded sections of road
- windy sections of road
- foggy conditions
- slow moving vehicles

Factors that can cause traffic delays and diversions may include:

- traffic accidents
- flooded sections of road
- road damage
- bridge/tunnel damage

RANGE STATEMENT

	• road works • building construction • emergency situations such as bushfires, etc. • livestock movement • holiday traffic • road closures for utility works such as electricity, water, sewerage, telecommunications, gas, etc.
Depending on the type of organisation concerned and the local terminology used, workplace procedures may include:	• company procedures • enterprise procedures • organisational procedures • established procedures
Documentation/records may include:	• state/territory heavy vehicle driving licence/permit requirements • state/territory road rules • workplace driving instructions and procedures • vehicle manufacturers instructions, specifications and recommended driving procedures including pre-operational checks of vehicle • emergency procedures • vehicle work diaries or record book (where required)
Applicable regulations, legislation and codes may include:	• relevant state/territory roads and traffic authority driving regulations and licence/permit requirements pertaining to operating heavy vehicles on unsealed roads • relevant state/territory road rules • relevant state/territory OH&S legislation • relevant state/territory fatigue management regulations • relevant state/territory environmental protection legislation

Unit Sector(s)

Not Applicable

Competency Field

Competency Field C - Vehicle Operation