



Australian Government

Department of Education, Employment and Workplace Relations

TLIC4067A Operate LP gas tanker

Release: 1

TLIC4067A Operate LP gas tanker

Modification History

Not applicable.

Unit Descriptor

This unit involves the skills and knowledge required to operate an LP gas tanker.

Licensing, legislative, regulatory and certification requirements are applicable to this unit.

Application of the Unit

An LP gas tanker must be operated in compliance with the licence requirements and regulations of the relevant state and territory roads and traffic authority pertaining to heavy vehicles.

An LP gas tanker is operated with limited or minimum supervision, with accountability and responsibility for self and others in achieving the prescribed outcomes.

Licensing/Regulatory Information

Refer to Unit Descriptor.

Pre-Requisites

Prerequisite Unit TLILIC3013A Preparation to transport dangerous goods by road

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 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

Recognise the characteristics of LP gas and LP gas tankers to ensure the safe transfer and transport of LP gas

- 1.1 Properties of the LP gas being transported are identified in accordance with emergency response documentation
- 1.2 Hazards associated with the transport of LP gas are clarified in accordance with emergency response documentation
- 1.3 Hazardous atmosphere zones are determined in accordance with organisational requirements
- 1.4 Functions of equipment fitted to an LP gas tanker are identified
- 1.5 Factors that cause static electricity are identified

Comply with legislative and organisational requirements for safe transfer and transport of LP gas

- 2.1 UN number, product class, its packaging group and any sub-risks of the LP gas being transported are identified in accordance with emergency response documentation
- 2.2 Requirements for the LP gas being transported are identified in accordance with the current Australian Dangerous Goods (ADG) Code and legislative requirements

Conduct pre-trip inspection

- 3.1 Tanker is checked to ensure Dangerous Goods (DG) compliance plate is attached to the tanker in accordance with current ADG Code requirements
- 3.2 Tanker load transfer equipment is checked to confirm security and state of repair, and that all hoses are tested and tagged in accordance with current ADG Code requirements
- 3.3 Tanker is checked to ensure safety equipment is accessible, properly maintained, and stowed and secured in accordance with current ADG Code requirements
- 3.4 Tanker is checked to ensure personal protective equipment (PPE) is available, ready for use and meets current ADG Code requirements
- 3.5 Tanker is checked to ensure dangerous goods placards are correct for the load and displayed in accordance with current ADG Code requirements
- 3.6 Fire extinguisher is checked for current date and pressure gauge
- 3.7 Shipping documentation is checked for accuracy and carried with emergency information in accordance with current ADG Code requirements
- 3.8 Non-compliant vehicles and equipment are reported in accordance with organisational procedures

Supervise loading

- 4.1 Tanker is driven into the loading site in accordance with site procedures
- 4.2 Tanker is positioned to enable loading to be carried out in accordance with site procedures without injury to people or damage to property
- 4.3 Park brake is applied, engine turned off and, where applicable, battery is isolated
- 4.4 PPE is used in accordance with site and organisational procedures
- 4.5 Transfer equipment is checked for compatibility
- 4.6 Loading activities are controlled within level of responsibility
- 4.7 Emergency procedures are followed in the event of a spill or leak during loading
- 4.8 Strategies to minimise risks associated with static electricity are employed in accordance with organisational requirements

Transport load to a customer site

- 5.1 Routes are planned to maximise efficiency between delivery sites
- 5.2 Any planned or prescribed routes are followed in accordance with regulatory and organisational requirements
- 5.3 Tanker is driven and manoeuvred in accordance with legal requirements, taking into consideration eco-driving techniques and exhibiting courtesy and professionalism toward other road users
- 5.4 Action is taken to deal with traffic delays and diversions
- 5.5 Legislative and organisational procedures are adhered to in driving, parking and leaving the tanker standing, or in the event of the tanker breaking down or stopping on a road

Prepare site to accept delivery

- 6.1 Pre-delivery assessment is made before entering the delivery site
- 6.2 Site features that present a hazard and/or prevent delivery are rectified or reported in accordance with organisational requirements
- 6.3 Any site instructions and/or restrictions are complied with
- 6.4 Tanker is manoeuvred and positioned to ensure product can be delivered safely and efficiently
- 6.5 Park brake is applied, engine turned off and, where applicable, battery is isolated
- 6.6 PPE is used in accordance with site and organisational procedures and steps are taken to apply personal safety measures and manage

potential hazards

6.7 Delivery site is marked with signs and/or cones

Manage the delivery

7.1 Receiving vessel and components are checked for damage

7.2 Contents are checked to ensure sufficient ullage exists for delivery

7.3 Product type and quantity are confirmed against delivery documents

7.4 Pressure gauges, valves, hoses and connections are checked for serviceability and leaks

7.5 Product is delivered in accordance with organisational and site procedures and special delivery instructions are observed

7.6 Emergency procedures are followed in the event of a leak during delivery

7.7 Strategies to minimise risks associated with static electricity are employed in accordance with organisational requirements

Complete post-delivery operations

8.1 Product transfer equipment is disconnected in accordance with product type and organisational procedures

8.2 Site is secured and restored to a clean and tidy condition in accordance with site procedures

8.3 Delivery documentation is completed in accordance with organisational procedures

8.4 Shipping documentation is amended to reflect changes in vehicle load

8.5 Pre-departure inspection of tanker is conducted in accordance with organisational procedures

8.6 Tanker is driven safely from site in accordance with site procedures

Follow procedures in emergencies

- 9.1 Incident is reported to police or fire services as soon as possible
- 9.2 Incident is reported to nominated person as soon as practicable in accordance with emergency plan
- 9.3 Reasonable assistance with load content is provided to authorised officer and emergency management supervisor (EMS)
- 9.4 Warnings are provided to other vehicles and persons in the vicinity who may be at risk
- 9.5 Escape of gas is prevented or minimised
- 9.6 Incident is reported in accordance within legislative requirements or as nominated in emergency plan

Required Skills and Knowledge

REQUIRED KNOWLEDGE AND SKILLS

This describes the essential knowledge and skills required at the completion of this unit.

Required knowledge:

- Relevant road rules, regulations, permit and licence requirements of the relevant state and territory roads and traffic authority
- Relevant OH&S and environmental procedures and regulations relating to LP gas tanker operations
- Relevant dangerous goods information pertaining to the operation of an LP gas tanker
- Procedures to be followed in the event of a driving emergency and in response to an emergency using a company transport emergency response plan (TERP)
- Workplace driving and operational instructions
- Efficient driving techniques and eco-driving considerations
- Safe delivery of LP gas to a customer site
- Factors that may cause traffic delays and diversions and related action that can be taken
- Techniques and procedures for loading and unloading an LP gas tanker safely
- Factors involved in trip preparation
- Workplace documentation

Required skills:

- Communicate effectively with others operating an LP gas tanker
- Read and interpret instructions, procedures, information and signs relevant to operating an LP gas tanker
- Interpret and follow operational instructions and prioritise work
- Complete documentation relating to operating an LP gas tanker
- Work collaboratively with others when operating an LP gas tanker
- Adapt appropriately to cultural differences in the workplace and customer sites, including modes of behaviour and interaction with others
- Implement contingency plans for unexpected events when operating an LP gas tanker
- Apply precautions and required action to minimise, control or eliminate hazards that may exist when operating an LP gas tanker
- 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 PPE, conforming to industry and OH&S standards
- Monitor performance of vehicle, its trailers and its equipment, and take appropriate action where required
- Service tanker ancillary equipment in terms of maintenance schedule and standard operating procedures
- Identify volume of goods
- Make accurate estimates in a range of situations

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 techniques for loading and unloading an LP gas tanker
 - applying correct placarding for the product being loaded
 - identifying the required PPE for the product being transported
 - identifying eco-driving techniques when operating an LP gas tanker
 - understanding relevant legislation and workplace procedures for transporting LP gas
 - understanding customer requirements when delivering LP gas to a customer's site

Context of and specific resources for assessment

- Access is required to:
 - relevant and appropriate materials and equipment to meet the performance criteria
 - applicable documentation, including workplace procedures, regulations, codes of practice and operation manuals

Method of assessment

- Practical assessment must occur:
 - in three different aspects of the job function in the workplace or as it would apply in the workplace.
- A simulator is not suitable for 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.

Properties and hazards of LP gas include:

- effect of heat and pressure on the LP gas when stored in a container
- causes of a boiling liquid expanding vapour explosion (BLEVE)
- characteristics of the LP gas in a leak, fire situation, or in the presence of static electricity
- density
- odour
- expansion rates
- upper and lower explosive limits

Equipment fitted to an LP gas tanker includes:

- emergency information holder
- eyewash facility
- fire extinguishers
- emergency shutdown controls
- fire alarm
- deluge system
- evacuation procedures

LP gas tanker vehicle includes:

- B-Double
- B-Triple
- AAB-Quad

Loading and unloading site may include:

- refinery
- customer site
- depot

Personal safety measures include:

- manual-lifting techniques
- three points of contact when using ladders
- correct use of walkways
- safety glasses
- safety footwear
- high visibility clothing
- hearing protection

Product transfer equipment includes:

- external piping and fittings
- bonding devices
- pressure vessels
- master switch
- valves
- warning devices

Eco driving includes:

- brake interlock
- pressure and ullage gauges
- observing speed limits
- ensuring transmission control
- using auxiliary braking systems

Factors that can cause traffic delays and diversions may include:

- traffic accidents
- flooded sections of road
- road damage
- bridge or tunnel damage
- road works
- building construction
- emergency situations, such as bushfires
- livestock movement
- holiday traffic
- road closures for utility works, such as electricity, water, sewerage, telecommunications and LP gas

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 and records may include:

- state and territory heavy vehicle driving licence or permit requirements
- state and territory road rules
- workplace driving instructions and procedures
- vehicle manufacturer instructions, specifications and recommended driving procedures, including pre-operational checks of vehicle
- emergency procedures
- TERP
- vehicle work diaries or record books

Applicable procedures and codes may include:

- relevant state and territory:
 - roads and traffic authority driving regulations and licence or permit requirements pertaining to operating heavy vehicles on unsealed roads
- road rules
- OH&S legislation
- fatigue management regulations
- environmental protection legislation

Unit Sector(s)

Not applicable.

Competency Field

C – Vehicle Operation