



Australian Government

Department of Education, Employment and Workplace Relations

TLIC4066A Operate fuel tanker

Release: 1

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Modification History

Not applicable.

Unit Descriptor

This unit involves the skills and knowledge required to operate a fuel tanker.

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

Application of the Unit

A fuel tanker must be operated in compliance with the Dangerous Goods Act and vehicle licence requirements and regulations of the relevant state and territory roads and traffic authorities pertaining to heavy vehicles.

Fuel tankers are 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

Co-requisite Units TLID4048A Top load a dangerous goods tanker (or)
TLID4049A Bottom load a dangerous goods tanker

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

1. Recognise the characteristics of fuel and fuel tankers to ensure safe transfer and transport of fuel

- 1.1 Properties of the fuel being transported are determined in accordance with emergency response documentation
- 1.2 Hazards associated with the transport of fuel are clarified in accordance with emergency response documentation
- 1.3 Hazardous atmosphere zones are identified in accordance with organisational requirements
- 1.4 Functions of equipment fitted to a fuel tanker are identified
- 1.5 Factors that cause static electricity are interpreted
- 1.6 Switch loading is identified in accordance with industry procedures

2. Comply with legislative and organisational requirements for safe transfer and transport of fuel

- 2.1 UN number, product class, its packaging group and any sub-risks of the fuel being transported are identified in accordance with emergency response documentation
- 2.2 Approved handler and approved filler requirements for the fuel being transported are identified in accordance with the current Australian Dangerous Goods (ADG) Code and Australian Institute of Petroleum (AIP) site requirements

3. Conduct pre-trip inspection

- 3.1 Tanker is checked for current terminal entry compliance
- 3.2 Tanker is checked to ensure DG compliance plate is attached to the tanker in accordance with current ADG Code requirements
- 3.3 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
- 3.4 Tanker is checked to ensure safety equipment is accessible, properly maintained, and stowed and secured in accordance with current ADG Code requirements
- 3.5 Tanker is checked to ensure personal protective equipment (PPE) is available, ready for use and meets current ADG Code requirements
- 3.6 Tanker is checked to ensure dangerous goods placards are correct for the load and displayed in accordance with

current ADG Code requirements

3.7 Fire extinguisher is checked for current date and pressure gauge

3.8 Shipping documentation is checked for accuracy and carried with emergency information in accordance with current ADG Code requirements

3.9 Non-compliant vehicles and equipment are reported in accordance with organisational procedures

4. Perform tanker loading tests

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, company regulations and legislative requirements

4.7 Emergency procedures are followed in the event of a spill or leak during loading

4.8 Static control measures are applied

5. Transport load to customer site

5.1 Routes are planned to avoid congested areas, tunnels or areas where people may congregate and to maximise efficiency between delivery sites

5.2 Any 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

6. 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

7. Manage the delivery

- 7.1 Static control measures are applied
- 7.2 Receiving vessel and components are checked for damage
- 7.3 Contents are checked to ensure sufficient ullage exists for delivery
- 7.4 Product type and quantity are confirmed against delivery documents
- 7.5 Pressure gauges, valves, hoses and connections are checked for serviceability and leaks
- 7.6 Quick shut emergency stop is checked as required
- 7.7 Product is delivered in accordance with organisational and site procedures and special delivery instructions are observed
- 7.8 Emergency procedures are followed in the event of a spill or leak during delivery
- 7.9 After-dip of tank is conducted to ensure product is in correct tanks and load has been fully delivered

8. Complete post-delivery activities

- 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

9. 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 is provided as required by an authorised officer or officer of the emergency services to deal with the situation

9.4 Warnings are provided to other vehicles and persons in the vicinity who may be at risk

9.5 Escape of fuel is prevented or minimised

9.6 Incident is reported in accordance with 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 authorities
- Relevant OH&S and environmental procedures and regulations relating to fuel tanker operations
- Relevant dangerous goods information pertaining to the use of fuel tankers
- Workplace driving and operational instructions
- Procedures to be followed in the event of a driving emergency and response to an emergency using a company transport emergency response plan (TERP)
- Efficient driving techniques and eco-driving considerations
- Techniques for safe delivery of fuel 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 a fuel tanker safely
- Factors involved in trip preparation
- Workplace documentation

Required skills:

- Correctly identify the product, and placard the fuel tanker accordingly
- Communicate effectively with others in the workplace
- Read and interpret instructions, procedures, information and signs relevant to operating a fuel tanker
- Interpret and follow operational instructions and prioritise work
- Complete documentation relating to operating a fuel tanker
- Work collaboratively with others when operating fuel tankers
- 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 a fuel tanker
- Apply precautions and required actions to minimise, control or eliminate hazards that may exist when operating a fuel 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 tanker, its trailers and its equipment and take appropriate action where required
- Service tanker ancillary equipment in terms of maintenance schedule and standard operating procedures

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 workplace operations and satisfy holistically all of the requirements of the elements and performance criteria. The evidence required is specified as performance evidence and knowledge evidence.
- Performance evidence:
 - Undertaking a pre-trip inspection of a fuel tanker
 - Correctly positioning a fuel tanker when loading and unloading
 - Correctly placarding a fuel tanker for the product being loaded
 - Using the required PPE for the product being transported
 - Preparing a route to maximise safety and efficiency and meet organisational route requirements
 - Using eco-driving techniques when operating a fuel tanker
 - Meeting customer requirements when delivering fuel to customer's site
 - Safely unloading fuel at a customer site
 - Completing post-delivery activities
- Knowledge evidence:
 - Techniques for loading and unloading a fuel tanker
 - Properties of the fuel to be carried
 - Relevant legislation and workplace procedures for transporting fuel
 - Procedures for dealing with an emergency

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

- with a fuel tanker that has current terminal entry compliance
- ensuring written and verbal understanding of all classes to identify compatibility, e.g. tanker with product
- 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 fuel include:**
- effect of heat and pressure on the fuel when stored in a container
 - characteristics of fuel in a leak, fire situation or in the presence of static electricity
 - density
 - odour
 - expansion rates
 - upper and lower explosive limits
- OH&S equipment fitted to a fuel tanker includes:**
- eyewash kit
 - fire extinguishers
 - emergency shutdown controls
 - emergency information holder
- Fuel tanker vehicle includes:**
- any bulk road transport vehicle authorised to carry Class 3 combustible fuel
- Loading and unloading sites include:**
- refinery
 - customer site
 - depot
- Personal safety measures may include:**
- manual-lifting techniques
 - three points of contact when using ladders
 - correct use of safety rails and walkways
 - safety glasses
 - safety footwear
 - high visibility clothing
 - hearing protection
 - PPE required for the product class being transported
- Product transfer equipment may include:**
- delivery hoses
 - scully systems
 - external piping and fittings
 - bonding devices
 - pressure vessels
 - master switch
 - valves
 - warning devices
 - brake interlock
- Safety equipment includes:**
- fire extinguisher

Eco driving includes:

- spill kit
- 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 and telecommunications

Depending on the type of organisation concerned and the local terminology used, workplace procedures may include:

- company procedures
- enterprise procedures
- organisational procedures
- established procedures
- regulatory procedures

Documentation and records may include:

- dangerous goods paperwork
- emergency procedure guides or HB76 Handbook
- dangerous goods licence
- site inductions
- 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
- transport emergency response plan (TERP)
- vehicle work diaries or record books

Applicable procedures and codes may include:

- Australian code for the transport of dangerous goods by road or rail: the current ADG Code
- 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
- relevant terminal entry compliance regulations

Unit Sector(s)

Not applicable.

Competency Field

C – Vehicle Operation