



Australian Government

TLIX0025 Maintain fuel storage and dispensing systems

Release: 1

TLIX0025 Maintain fuel storage and dispensing systems

Modification History

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

Application

This unit relates to the maintenance of fuel storage and dispensing systems. This includes working safely, planning and preparing to maintain fuel storage and dispensing systems, testing to diagnose faults, performing maintenance, conducting-post maintenance trials and tests and making adjustments, and completing required documentation and reporting.

The unit covers above-ground and below-ground fuel storage tanks and applies to work at sites which store and dispense diesel and motor spirit (petrol), including ethanol blends.

This unit excludes tank lining and systems used for aviation fuel; and bulk fuel systems on military bases, major hazard facilities and bulk transfer terminals.

This unit is appropriate for personnel involved in maintaining fuel storage and dispensing systems. Work may be performed individually as part of a small team.

Licensing, legislative or certification requirements that apply to this unit may vary between jurisdictions and should be checked prior to commencing the unit.

Pre-requisite Unit

Not applicable

Competency Field

Not applicable

Unit Sector

Not applicable

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

1 Plan to maintain fuel storage and dispensing systems

- 1.1** Fuel storage and dispensing system design, drawings, specifications and manufacturer's maintenance schedules are interpreted
- 1.2** Site conditions are determined, evaluated and accommodated in work plan
- 1.3** Existing site services are identified and accommodated in work plan
- 1.4** Tools, equipment and personnel required to complete work are determined
- 1.5** Authorisations, licences or permits required for work are identified and obtained by relevant personnel
- 1.6** Workplace documentation, site-specific requirements, industry standards and regulatory requirements are accessed and interpreted
- 1.7** Workplan is developed to ensure work is completed in correct sequence and in compliance with requirements
- 1.8** Safe work method statements (SWMS) are developed
- 1.9** Tools, equipment and personal protective equipment (PPE) required for work plan are identified and arranged
- 1.10** Human resource requirements are identified, and competency checked against requirements

2 Prepare to maintain fuel storage and dispensing systems

- 2.1** Risk assessments are completed, and controls and monitoring processes implemented
- 2.2** Site personnel are briefed, and understanding of Emergency Response Plan (ERP), hazards, protection of existing site services, site works and operational requirements confirmed
- 2.3** Site signage, isolation and lock-out/tag-out requirements are implemented
- 2.4** Worksite is delineated and cordoned off to prevent unauthorised access
- 2.5** Materials, tools and equipment required are obtained and checked against requirements for correct operation and safety

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| | 2.6 | Work is coordinated effectively with others on the worksite |
| | 2.7 | SWMS for all work are reviewed and applied |
| 3 Maintain fuel storage and dispensing systems | 3.1 | Maintenance plan is interpreted and applied |
| | 3.2 | Testing to diagnose faults is conducted in accordance with manufacturer guidelines |
| | 3.3 | Existing fuel system is disconnected and dismantled in accordance with work plan and manufacturer instructions |
| | 3.4 | Maintenance is performed in accordance with manufacturer specifications, site procedures and SWMS |
| | 3.5 | Problems or non-conformance are identified, recorded, rectified and reported |
| | 3.6 | Post-maintenance trials and tests are conducted |
| | 3.7 | Fuel storage and dispensing system is recommissioned |
| | 3.8 | Required adjustments are made and recorded |
| 4 Complete work and reporting | 4.1 | Work completion is undertaken in accordance with workplan, specifications and SWMS |
| | 4.2 | Site housekeeping and remediation are completed |
| | 4.3 | Performance is recorded and reported |
| | 4.4 | Compliance documentation and reporting are completed |
| | 4.5 | Relevant personnel are notified of work completion |
| | 4.6 | Site handover to relevant person/s is completed in accordance with workplace procedures |
| | 4.7 | Authorities are advised of work completion in accordance with regulatory requirements |

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions can be found in the TLI Transport and Logistics Training Package Companion Volume Implementation Guide.

This unit must be demonstrated related to work at a site:

- with either above-ground or below-ground fuel storage tanks
- which stores and dispenses diesel and motor spirit (petrol), including ethanol blends.

This unit excludes:

- tank lining
- systems used for aviation fuel
- bulk fuel systems on military bases
- major hazard facilities
- bulk transfer terminals

Unit Mapping Information

This is a new unit. No equivalent unit.

Links

Companion Volume Implementation Guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>

Assessment Requirements for TLIX0025 Maintain fuel storage and dispensing systems

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Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements, performance criteria and range of conditions on at least two separate occasions and include:

- planning and coordinating work on a site that has variable hazardous areas
- managing work involving multiple specialist contractors
- identifying and protecting any existing site services
- communicating with relevant person/s to obtain and confirm work requirements
- reviewing and applying safe work method statements (SWMS) for all work
- requirements for diesel exhaust, fluid storage and dispensing systems
- conducting tests to identify and diagnose faults in accordance with manufacturer guidelines, including:
 - groundwater monitoring points/wells
 - cathodic protection
 - inspecting tank pit monitoring points
 - dispensing equipment and sumps
 - drainage and effluent treatment systems
 - pipework system and tanks
 - automatic tank gauge (ATG)
 - leak detection system
 - continuity, earthing and equipotential bonding
- disconnecting and dismantling existing fuel systems in accordance with work plan and manufacturer instructions
- performing maintenance in accordance with manufacturer specifications and site procedures
- identifying, recording, rectifying and reporting problems or non-conformances
- conducting trials and tests of:
 - the fuel system, including dispenser meters
 - the fuel delivery system into the storage tanks
 - stage 1 and stage 2 vapour recovery systems, as required, for petrol fuel systems
- recommissioning fuel storage and dispensing system
- making and recording required adjustments
- coordinating work activities with others

- monitoring work and adapting as required
- completing workplace documentation and reporting.

Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements, performance criteria and range of conditions and include knowledge of:

- organisational communication protocols
- relevant permit types
- classification of hazardous zones
- hazardous area electrical work
- safety requirements and emergency procedures
- site-specific hazardous areas/zones and determining minimum distances
- requirements for:
 - working in different weather conditions
 - working in confined spaces
 - working at heights
 - traffic management
 - lock-out/tag-out procedures
 - isolations
 - site signage
 - atmosphere testing
 - spill management
 - 'in-date' inspection tags
 - dealing with local emergency services
 - tool and equipment checks
 - approved contractor certification/licensing
- regular maintenance activities
- job safety analysis (JSA), safe work procedures (SWP) and SWMS
- implications of changes to site conditions and work activity during fuel delivery on a site
- spill management
- different types of fuels and their associated hazards
- different materials and equipment required for the work and their associated hazards in a fuel storage and dispensing environment
- compliance requirements for main components of fuel storage and dispensing systems, including:
 - tank types
 - gauges
 - pumps
 - fuel dispensers (to customers)

- pipes
- filters
- vapour recovery systems; stage 1 and stage 2, as applicable
- primary and secondary containment systems
- surface water management
- bunding
- product labelling
- safety signage
- safe techniques for concrete paving cutting, breaking and removal over fuel tanks/pipes and reinstatement to accommodate maximum axle load vehicles
- fuel testing and sampling techniques
- testing equipment manufacturers' requirements for its operation, maintenance and calibration
- spill management
- tank inspection techniques
- solid and liquid waste certificates
- Environment Protection Authority (EPA) reporting requirements
- certification of reporting to AS 4897 *The design, installation and operation of underground petroleum storage systems* for new and modified fuel systems
- certification of reporting to AS 4976 *The removal and disposal of underground petroleum storage tanks* for decommissioned fuel systems, destruction/disposal of tanks, and waste disposal certificates
- solid and liquid waste certificates
- underground petroleum storage systems (UPSS) 'as-constructed' documentation requirements
- certification of reporting to local EPA regulations
- jurisdictional EPA licenses for removal, transport and disposal of fill and/or potentially contaminated fill from site
- jurisdictional Service Station Licensing requirements.

Assessment Conditions

Assessors must hold credentials specified within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must satisfy the Principles of Assessment and Rules of Evidence and all regulatory requirements included within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must occur in workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated workplace operational situations that replicate workplace conditions.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Resources for assessment must include access to:

- relevant and appropriate materials, tools, equipment and personal protective equipment (PPE) currently used in industry
- applicable documentation including legislation, regulations, codes of practice, workplace procedures, sample work permits and operation manuals.

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