



Australian Government

TLIF4070A Operate fire and life safety system within a road tunnel

Release 1

TLIF4070A Operate fire and life safety system within a road tunnel

Modification History

New release. This unit replaces and is equivalent to TLIF0070A.

Unit Descriptor

This unit involves the skills and knowledge required to operate fire and life safety systems within a road tunnel control room. It includes operating and maintaining fire and life safety systems, and activating system procedures. Legislative, regulatory or certification requirements may be applicable to this unit.

Application of the Unit

This unit involves the application of workplace safe work instructions and procedures and regulatory requirements as part of work activities. It also includes an understanding of the risk management procedures for operating fire and life safety systems as part of a road tunnel. Tasks are performed individually within a control environment. The role may at times be required to work within a team environment.

Licensing/Regulatory Information

Not applicable.

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

Elements and Performance Criteria

1 Operate fire and life safety systems

- 1.1 Fire and life safety systems are operated on control panels in accordance with workplace procedures
- 1.2 Electrical distribution systems are identified and operated in accordance with workplace procedures
- 1.3 Pumps and drainage systems are identified and operated in accordance with workplace procedures
- 1.4 Relevant information is processed to establish priorities and responses for dealing with issues or incidents
- 1.5 Traffic management (closed tunnel) is coordinated to ensure safety of all traffic

2 Maintain fire and life safety systems

- 2.1 Fire and life safety systems are maintained according to workplace procedures
- 2.2 Actions undertaken are clearly documented and filed

3 Activate fire and life safety system procedures

- 3.1 Ventilation and/or deluge systems are operated in accordance with workplace procedures
- 3.2 Lighting levels are maintained according to workplace procedures
- 3.3 Liaison is initiated and maintained with organisations/individuals affected by changed operational activities
- 3.4 Evacuation of tunnel is conducted in accordance with workplace procedures
- 3.5 Systems are monitored and reactivated in accordance with workplace procedures

Required Skills and Knowledge

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

Required knowledge:

- Relevant Australian standards, codes and regulations
- Relevant OH&S procedures and guidelines
- Workplace procedures and guidelines for operation of fire and life safety systems within a road tunnel
- Purpose and operations of fire and safety systems used in a road tunnel, including electrical distribution system, pumps and drainage system, ventilation system
- Emergency procedures
- Emergency services liaison
- Emergency vehicle access to tunnel
- Site layout including familiarisation

Required skills:

- Communicate effectively and calmly with others when operating within a road tunnel control room environment
- Read and interpret instructions, procedures and information relevant to the operation of fire and life safety systems within a road tunnel
- Interpret and follow operational instructions and prioritise work
- Complete documentation related to the operation of fire and life safety systems within a road tunnel
- Operate electronic communication equipment to required protocol
- Adapt appropriately to cultural differences in the workplace, including modes of behaviour and interactions with others
- Promptly report and/or rectify any identified problems that may arise when operating fire and life safety systems within a road tunnel in accordance with regulatory requirements and workplace procedures
- Implement contingency plans for unanticipated situations that may occur when operating fire and life safety systems within a road tunnel
- Monitor work activities in terms of planned schedule
- 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
- Identify and correctly use equipment and vehicles in accordance with environmental protection regulations and guidelines

- Accurately brief emergency services of tunnel layout, and available equipment and its use

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:
 - activating the fire and life safety system as it applies to the workplace and within the job role
 - evacuating a tunnel
 - understanding ventilation and deluge system as it applies to the workplace and the job role
 - understanding electrical distribution system as it applies to the workplace and job role
 - knowledge of fire and life safety system as it applies in the workplace
 - identifying the maintenance requirements of fire and life safety systems according to workplace procedures
 - identifying tunnel layout
 - identifying all relevant liaisons that apply when required to activate the fire and life safety systems of a tunnel

Context of and specific resources for assessment

- Performance is demonstrated consistently over a period 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

- Assessment of this unit must be undertaken by a registered training organisation
- As a minimum, assessment of knowledge must be conducted through appropriate written/oral tests

- Practical assessment must occur:
 - through activities in an appropriately simulated environment at the registered training organisation, and/or
 - in an appropriate range of situations in the workplace

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.

Operation of fire and life safety systems within a road tunnel may be conducted:	• by day or night • in a range of work environments • on top of containers • in limited or restricted spaces • in all weather conditions
Customers may be:	• internal or external
Environment may include:	• control room • tunnel • vehicle tunnel • ventilation chambers • roadway
Equipment/vehicles may include:	• motor vehicles • trucks • motorcycles • livestock • hazardous/dangerous goods
Personnel in the work area may include:	• workplace personnel • tunnel users • pedestrians • site visitors • contractors • official representatives • emergency services
Personal protective equipment may include:	• gloves • safety headwear and footwear • safety glasses • protective clothing • high visibility clothing • full arrest safety harness • hearing protection
Depending on the type of organisation concerned and the local terminology used, workplace procedures may include:	• company procedures • enterprise procedures • organisational procedures • established procedures
Applicable regulations and legislation may include:	• relevant state/territory OH&S legislation and safety codes • dangerous goods regulations • OH&S manual handling guidelines

- relevant state/territory equal opportunity legislation
- equal employment opportunity and affirmative action legislation
- workplace relations regulations

Unit Sector(s)

Not applicable.

Competency Field

F - Safety Management