



Australian Government

TLIF0013 Manage the impact of human capabilities/limitations on human performance in a rail environment

Release: 1

TLIF0013 Manage the impact of human capabilities/limitations on human performance in a rail environment

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 involves the skills and knowledge required to manage the impact of human capabilities and limitations on human performance in a rail environment.

It includes describing human error and error management and identifying factors that impact on human performance. It also includes identifying methods of creating work environments that support human performances.

This unit is intended for people who manage rail safety workers, to assist them in applying human factors principles to the management of safety critical tasks and the work environment to improve safety and performance.

For this unit human factors is defined as the scientific discipline that is concerned with the application of information about human characteristics, capacities, and limitations to the design of tasks, equipment and work environments.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Not applicable.

Competency Field

F – Safety Management

Unit Sector

Rail Sector.

Elements and Performance Criteria

ELEMENTS

PERFORMANCE CRITERIA

Elements describe the essential Performance criteria describe the performance needed to

outcomes.

demonstrate achievement of the element.

1 Describe human error and error management

1.1 Differences between errors and violations are identified

1.2 Factors contributing to errors are identified

1.3 Principles for error prevention, reduction, detection, recovery and tolerance are described

1.4 Factors contributing to violations are identified

1.5 Fair and just culture principles are described

2 Identify factors that impact on human performance

2.1 Individual capabilities and limitations that impact on human performance are identified

2.2 Factors relating to the organisation and wider system that impact on human performance are identified

2.3 Factors relating to interaction with others that impact on human performance are identified

2.4 Factors relating to how the design and operation of plant, equipment and technology can impact on human performance are identified

2.5 Factors relating to rules and procedures that impact on human performance are identified

2.6 Factors relating to work environment that impact on human performance are identified

3 Identify methods for creating work environments that support human performance

3.1 Principles of human-centred design are described

3.2 Strategies and methods for creating work environments and systems of work that reduce the potential for errors and improve human performance are identified

3.3 Circumstances where human factors expertise is required are identified

3.4 Benefits of applying human factors knowledge are described

- 3.5** Human factors compliance requirements are identified in accordance with relevant safety management systems

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.

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 TLIF0013 Manage the impact of human capabilities/limitations on human performance in a rail environment

Modification History

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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 and performance criteria on at least one occasion and include:

- describing principles of human error
- identifying and explaining strategies for managing relevant factors that impact on human performance
- identifying human performance limitation that affect work performance
- identifying impact of factors relating to the organisation and wider systems in which people work on human performance
- identifying impact of individual capabilities and limitations
- identifying impact of interaction with others including:
 - communication on human performance
 - group dynamics on human performance
 - supervision on human performance
 - team coordination on human performance
 - team experience on human performance
- identifying impact of rules and procedures on human performance
- identifying impact of the design and operation of plant and equipment including technology, vehicles, tools, rollingstock and infrastructure on human performance
- identifying impact of the work environment including workspace, weather and surrounds on human performance and giving consideration to design, usability, comfort and suitability.

Knowledge Evidence

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

- fair and just culture principles
- human centred design principles/human factors principles
- impact of factors relating to the organisation and wider systems in which people work on human performance
- impact of individual capabilities and limitations including:

- cognitive factors on human performance
- demographic factors on human performance including age, gender and mobility
- individual differences
- physical factors on human performance
- physiological factors on human performance
- psychological factors on human performance
- impact of interaction with others including:
 - communication on human performance
 - group dynamics on human performance
 - supervision on human performance
 - team coordination on human performance
 - team experience on human performance
- impact of plant and equipment including technology, vehicles, tools, rollingstock and infrastructure on human performance including consideration of design, usability, reliability and suitability
- impact of rules and procedures on human performance including consideration of design, usability and suitability
- impact of work environment including workspace weather and surrounds on human performance including consideration of design, usability, comfort and suitability
- recognising how leaders can influence human performance through:
 - the design of work schedules
 - planning of work
 - fostering an appropriate authority gradient concept
 - quality of supervision and feedback including actively managing unsafe behaviours for example, short cuts/work arounds
 - leadership and culture
- safety awareness including principles of human error.

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 a workplace environment.

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:

- a range of relevant exercises, case studies and/or simulations
- applicable documentation including legislation, regulations, codes of practice and workplace

procedures.

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