



Australian Government

Department of Education, Employment and Workplace Relations

UETTD RIS25B Contribute to coordinated high voltage live line work

Release: 1

UETTDRIS25B Contribute to coordinated high voltage live line work

Modification History

Not Applicable

Unit Descriptor

Unit Descriptor

1)

1.1) Descriptor

This Competency Standard Unit specifies the outcomes required of live line working team members to work effectively as a cohesive team to ensure safety of all team members and the community when undertaking high voltage (HV) live line work. It includes the pre-work briefing on tasks to be undertaken, roles of individual team members, identification of possible hazards, risk management analysis and implementation of palliative measures to control or mitigate the risk to acceptable levels. It also encompasses the monitoring of work performance to ensure safety, and the post-work debriefing to identify areas for continuous improvement.

Application of the Unit

Application of the Unit 4)

This Competency Standard Unit is intended to augment formally acquired competencies. It is suitable for employment-based programs under an approved contract of training.

Licensing/Regulatory Information

1.2) License to practice

The skills and knowledge described in this unit may require a licence/registration to practice in the work place subject to regulations for undertaking of electrical work. Practice in workplace and during training is also subject to regulations directly related to Occupational Health and Safety, electricity/telecommunications/gas/water industry safety and compliance, industrial relations, environmental protection, anti discrimination and training. Commonwealth, State/Territory or Local Government legislation and regulations may exist that limits the age of operating certain equipment.

Pre-Requisites

Prerequisite Unit(s) 2)

2.1) Competencies

There are no prerequisite competencies to this unit.

Employability Skills Information

Employability Skills

3)

The required outcomes described in this unit of competency contain applicable facets of Employability Skills. The Employability Skills Summary of the qualification in which this unit of competency is packaged will assist in identifying Employability Skill requirements.

Elements and Performance Criteria Pre-Content

6) Elements: 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	Plan to contribute to a coordinated High Voltage Live Line work team.	1.1	Works schedule(s), including drawings, plans, requirements, established procedures, and material lists, are obtained, analysed, if necessary, by site inspection and the extent of the preparation of the work determined for planning and coordination by the team.
		1.2	Relevant requirements and established procedures for the work are communicated to all team members and identified for all work sites.
		1.3	OHS policies and procedures related to requirements and established procedures for the working on HV live lines are obtained and confirmed for the purposes of the work to be performed and discussed among all team members.

ELEMENT**PERFORMANCE CRITERIA**

- 1.4 Work is prioritised and sequenced following consultation with all team members to ensure safe systems of work are followed for completion within acceptable timeframes and in accordance with established procedures.
- 1.5 OHS and live line work hazards are identified, risk assessments conducted and control measures are identified, prioritised, implemented and documented against the work schedule, including the checking of site weather and environmental conditions to ensure that live line work can be undertaken safely.
- 1.6 Relevant live line work permits or authority for live line work are secured to coordinate the performance of work by the team according to requirements and/or established procedures.
- 1.7 Resources including personnel, equipment, tools and personal protective equipment required for the job are identified, scheduled and coordinated and confirmed in a safe and technical working order.
- 1.8 Personnel participating in the work, including plant operators and contractors, are fully briefed and respective responsibilities coordinated and authorised where applicable in accordance with established procedures.
- 1.9 Liaison and communication issues with other/authorised personnel, authorities, clients and land owners are resolved and activities coordinated to carry out work.
- 1.10 Site is prepared according to the work schedule and to minimise risk and damage to property, commerce, and individuals in accordance with established procedures.
- 1.11 All team members to be engaged in the work discuss and agree, without ambiguity, on their respective roles, and possible role changes during the course of work.

ELEMENT	PERFORMANCE CRITERIA
2 Carry out the contribution to coordinated High Voltage Live Line work.	1.12 Positioning of road signs, barriers and warning devices is planned and coordinated in accordance with requirements.
	2.1 OHS and sustainable energy principles and practices to reduce the incidents of accidents and minimise waste are monitored and actioned in accordance with requirements and/or established procedures. In particular, established live line working procedures are strictly adhered to.
	2.2 First Aid, Rescue and other related work procedures are performed according to requirements and/or established procedures
	2.3 Lifting, climbing, working aloft, and use of power tools/equipment, techniques and practices, where applicable are safely exercised according to requirements.
	2.4 Live line permits and other provisions for live line work are in place as required, in accordance with the requirements and established procedures.
	2.5 Essential knowledge and associated skills are applied in the safe contribution to coordinated High Voltage Live Line work to ensure completion in an agreed timeframe and, to quality standards with a minimum of waste according to requirements.
	2.6 Work is undertaken on HV Live Line in a team environment work according to the work schedule and requirements/established procedures.
	2.7 Work is shared among all team members in a coordinated manner as discussed and agreed during pre-work briefing.
2.8 Hazard warnings and safety signs are recognised and hazards and assessed OHS risks are discussed with team members and reported to the immediate authorised persons for	

ELEMENT**PERFORMANCE CRITERIA**

		directions according to established procedures.
	2.9	Unplanned events in the maintenance of HV Live Line work are discussed among all team members and appropriate action undertaken accordingly.
	2.10	Solutions to non-routine problems are identified and actioned using acquired essential knowledge and associated skills according to requirements.
	2.11	On going checks of quality of the work are undertaken in accordance with requirements and established procedures to ensure a quality like outcome is achieved for the client/customer and to a community/industry standard.
3	Complete the contribution to coordinated High Voltage Live Line work.	
	3.1	Work undertaken is checked against works schedule for conformance with requirements, anomalies reported and solutions identified in accordance with established procedures.
	3.2	Accidents and/or injuries are reported and followed up in accordance with requirements/established procedures.
	3.3	Work site is rehabilitated, cleaned up and confirmed safe in accordance with established procedures.
	3.4	Tools, equipment and any surplus resources and materials are, where appropriate, cleaned, checked and returned to storage in accordance with established procedures.
	3.5	Relevant work permit(s) are signed off and, High Voltage Live Line work is returned to service and advised to client/customer in accordance with requirements.
	3.6	Works completion records, reports, as installed /modified drawing(s) and/or documentation and information are confirmed, processed and appropriate personnel notified.

ELEMENT**PERFORMANCE CRITERIA**

- 3.7 Aspects of work schedule are discussed identified via feedback with fellow team members and information on improvement forwarded to appropriate personnel according to established procedures.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

7) Essential Knowledge and Associated Skills (EKAS): This describes the essential skills and knowledge and their level, required for this unit.

Evidence shall show that knowledge has been acquired of contributing to coordinated high voltage live line work.

All knowledge and skills detailed in this unit should be contextualised to current industry practices and technologies.

The extent of the essential knowledge and associated skills (EKAS) required is given in Volume 2 - Part 2.2 EKAS. It forms an integral part of this unit.

- E2.18.1 Occupational Health and Safety principles
- E2.18.2 Electrical safe working practice
- T2.3.1 Powerline safety practices
- T2.3.3 Statutory and safety considerations
- T2.5.3 Fundamentals for working safely near live electrical apparatus
- T2.8.1 Enterprise Specific - policy and procedures instructions
- T2.8.2 Enterprise Specific - OHS Instructions
- T2.8.6 Enterprise specific - specialised tools
- T2.8.9 Enterprise Specific - team work high voltage live line

Evidence Guide

EVIDENCE GUIDE

9) This provides essential advice for assessment of the unit of competency and must be read in conjunction with the Performance Criteria and the range statement of the unit of competency and the Training Package Assessment Guidelines.

The Evidence Guide forms an integral part of this Competency Standard Unit and shall be used in conjunction with all component parts of this unit and, performed in accordance with the Assessment Guidelines of this Training Package.

Overview of Assessment

9.1)

Longitudinal competency development approaches to assessment, such as Profiling, require data to be reliably gathered in a form that can be consistently interpreted over time. This approach is best utilised in Apprenticeship programs and reduces assessment intervention. It is the Industry's preferred model for apprenticeships. However, where summative (or final) assessment is used it is to include the application of the competency in the normal work environment or, at a minimum, the application of the competency in a realistically simulated work environment. It is recognised that, in some circumstances, assessment in part or full can occur outside the workplace. However, it must be in accord with Industry and, Regulatory policy in this regard.

Methods chosen for a particular assessment will be influenced by various factors. These include the extent of the assessment, the most effective locations for the assessment activities to take place, access to physical resources, additional safety measures that may be required and the critical nature of the competencies being assessed.

The critical safety nature of working with electricity, electrical equipment, gas or any other hazardous substance/material carries risk in deeming a person competent. Hence, sources of evidence need to be 'rich' in nature so as to minimise error in judgment.

Activities associated with normal every day work have a bearing on the decision as to how much and how detailed the data gathered will contribute to its 'richness'. Some skills are more critical to safety and operational requirements while the same skills may be more or less frequently practiced. These points are raised for the assessors to consider when choosing an assessment method and developing assessment instruments. Sample assessment instruments are included for Assessors in the

EVIDENCE GUIDE

Assessment Guidelines of this Training Package.

Critical aspects of evidence required to demonstrate competency in this unit

9.2)

Before the critical aspects of evidence are considered all prerequisites shall be met.

Evidence for competence in this unit shall be considered holistically. Each element and associated Performance Criteria shall be demonstrated on at least two occasions in accordance with the "Assessment Guidelines - UET09". Evidence shall also comprise:

- A representative body of Performance Criteria demonstrated within the timeframes typically expected of the discipline, work function and industrial environment. In particular this shall incorporate evidence that shows a candidate is able to:
 - Implement Occupational Health and Safety workplace procedures and practices including the use of risk control measures as specified in the Performance Criteria and range; and
 - Apply sustainable energy principles and practices as specified in the Performance Criteria and range; and
 - Demonstrate an understanding of the essential knowledge and associated skills as described in this unit to such an extent that the learner's performance outcome is reported in accordance with the preferred approach; namely a percentile graded result, where required by the regulated environment; and
 - Demonstrate an appropriate level of employability skills; and
 - Conduct work observing the relevant Anti Discrimination legislation, regulations, policies and workplace procedures; and
- Demonstrated performance across a representative range of contexts from the prescribed items below:

Range of tools/equipment/materials/procedures/workplaces/other variables		
Group No	The minimum number of items on which skill is to be demonstrated	Item List

EVIDENCE GUIDE

A	All of the following:	Facilitate communication/consultation process in a HV live line work team environment. Contribute to pre-work briefings and securing of live line permits or authority to work in a HV live line work team environment. Implement OHS policies and procedures in a HV live line work team environment. Contribute to the work schedule in a HV live line work team environment. Contribute to feedback consultation on improving safe working in a HV live line work team environment.
B	At least one occasion	Dealing with an unplanned event by drawing on essential knowledge and associated skills to provide appropriate solutions incorporated in the holistic assessment with the above listed items.

Context of and specific resources for assessment**9.3)**

This unit should be assessed as it relates to normal work practice using procedures, information and resources typical of a workplace. This should include:

- OHS policy and work procedures and instructions.
- Suitable work environment, facilities, equipment and materials to undertake actual HV Live Line work as a team.

In addition to the resources listed above, in Context of and specific resources for assessment, evidence should show

EVIDENCE GUIDE

demonstrated competency working at realistic heights above ground i.e. above 3 metres, in limited spaces, with different structural/construction types and method and in a variety of environments.

Method of assessment

9.4)

This Competency Standard Unit shall be assessed by methods given in Volume 1, Part 3 "Assessment Guidelines".

Note:

Competent performance with inherent safe working practices is expected in the Industry to which this Competency Standard Unit applies. This requires that the specified essential knowledge and associated skills are assessed in a structured environment which is primarily intended for learning/assessment and incorporates all necessary equipment and facilities for learners to develop and demonstrate the essential knowledge and associated skills described in this unit.

Concurrent assessment and relationship with other units

9.5)

For optimisation of training and assessment effort, competence in this unit may be assessed concurrently with the following units:

UETTDROP04B	Maintain energised high voltage distribution overhead electrical apparatus (glove)
UETTDORT13B	Maintain energised traction overhead electrical apparatus (glove and barrier)
UETTDORT14B	Maintain energised lines (transmission) using bare hand technique
UETTDORT15B	Maintain energised lines (transmission) using bare hand technique on a helicopter platform

Range Statement

RANGE STATEMENT

8) This relates to the unit of competency as a whole providing the range of contexts and conditions to which the Performance Criteria apply. It allows for different work environments and situations that will affect performance.

This Competency Standard Unit shall/may be demonstrated in relation to contributing to coordinated high voltage live line work and may include the following:

This is a common unit for all developed live line working techniques such as hot stick, gloves and barrier, or bare hand. Technical details utilising these live line techniques are covered in other respective units of competency for live line work.

HV Live Line work may include the maintenance of energised HV electrical apparatus, conductors and cables.

Work may be undertaken on ladders, insulated elevating work platforms or through the use of a work platform secured to a helicopter.

The emphasis of this unit is to foster and promote effective team work live line work to ensure safety of all team members and the community during the course of work.

The following constants and variables included in the element/Performance Criteria in this unit are fully described in the Definitions Section 1 of this volume and form an integral part of the Range Statement of this unit:

- Appropriate and relevant persons (see Personnel)
- Appropriate authorities
- Appropriate work platform
- Assessing risk
- Assessment
- Authorisation
- Diagnostic, testing and restoration
- Documenting detail work events, record keeping and or storage of information
- Drawings and specifications
- Emergency
- Environmental and sustainable energy procedures
- Environmental legislation
- Environmental management documentation
- Established procedures
- Fall prevention
- Hazards
- Identifying hazards

RANGE STATEMENT

- Inspect
- Legislation
- MSDS
- Notification
- OHS practices
- OHS issues
- Permits and/or permits to work
- Personnel
- Quality assurance systems
- Requirements
- Testing procedures
- Work clearance systems

Unit Sector(s)

Not Applicable

2.2) Literacy and numeracy skills**2.2) Literacy and numeracy skills**

Participants are best equipped to achieve this unit if they have reading, writing and numeracy skills indicated by the following scales. Description of each scale is given in Volume 2, Part 3 "Literacy and Numeracy"

Reading	3	Writing	3	Numeracy	3
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Competency Field

Competency Field 5)

Industry Specific Cross-Discipline Units