Australian Government

Department of Education, Employment and Workplace Relations

UETTDRVC27A Monitor safety compliance of vegetation control work in an ESI environment

Release: 1

UETTDRVC27A Monitor safety compliance of vegetation control work in an ESI environment

Modification History

Not applicable.

Unit Descriptor

Unit Descriptor **1) Scope:**

1.1) Descriptor

This Competency Standard Unit covers the control and monitor of work associated with vegetation control near live electrical apparatus. This includes observing, spotting, rendering warnings to stop unsafe work activities, and/or encroachment of ordinary persons, public, personnel and mobile plant and equipment into the safe approach distance (SAD) as defined for persons and mobile plant and equipment. A person designated as a Safety Observer, solely dedicated to the role, normally carries out this work.
Also included is the preparation of risk assessment control measures that encompass job safety assessment. All work and zones is in compliance with relevant State or Territory regulatory agencies/bodies, local government legislation, Industry bi-partite body – Guidelines/Codes of Practices or other related requirements for safe work and access near live electrical and mechanical apparatus.

Application of the Unit

Application of the Unit **2)**

This competency standards unit shall apply to Transmission, Distribution, Rail Traction, Telecommunications and Vegetation Management Control industry sectors.

Licensing/Regulatory Information

License to practice **3)**

The skills and knowledge described in this unit may only be practiced under the regulations pertaining to each State and Territory for the safe planning for the removal of vegetation around live powerlines up to the live work zone including near live electrical apparatus, and regulations that directly relate to Occupational Health and Safety and/or contracts of training where they apply.

Pre-Requisites

Prerequisite Unit(s) **4)**

Competencies **4.1)**

Granting of competency in this unit shall be made only after competency in the following unit(s) has/have been confirmed.
Where pre-requisite pathways have been identified. All competencies in the Common Unit Group must be have been completed.
Common Unit Group

Unit Code	Unit Title
UEENEEE101A	Apply Occupational Health and Safety regulations, codes and practices in the workplace
UETTDREL13A	Comply with sustainability, environmental and incidental response policies and procedures
UETTDREL14A	Working safely as a non electrical worker near live electrical apparatus
UETTDRVC23A	Plan the removal of vegetation up to vegetation exclusion zone near live electrical apparatus

Literacy and numeracy skills **4.2)**

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 2 Writing 2 Numeracy 2

Employability Skills Information

Employability Skills **5)**

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 describe the essential outcomes of a competency standard unit

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 Prepare to control safety compliance for vegetation work near live electrical apparatus	1.1 Work instructions are received and confirmed.
	1.2 Relevant requirements and established procedures to be followed for the work to be performed are discussed with all personnel to establish and confirm the work schedule.
	1.3 OHS policies and procedures to be followed for the work to be performed are received and

ELEMENT	PERFORMANCE CRITERIA
	confirmed.
	1.4 Suggestions to assist in meeting control of safety compliance for vegetation work near live electrical apparatus outcomes are made to others involved in the work.
	1.5 Hazards are identified, OHS risks associated with working near live electrical apparatus are identified and reported according to established procedures.
	1.6 Scope of responsibility under the relevant work permit(s)/access authorisation(s) are received and confirmed according to requirements and established procedures with relevant personnel.
	1.7 Resources including, equipment, tools and personal protective equipment required for the job are identified and, in working order according to established procedures.
	1.8 Relevant responsibility associated with First Aid, Pole Top and Aerial Rescue and/or other related work safety procedures at the worksite are confirmed in accordance with requirements and established procedures to ensure safety measures are followed in the instance of an incident.
	1.9 Client issues are identified and referred to appropriate personnel in accordance with industry/acceptable /community standards.
	1.10 Site preparation is in accord with given instructions and established procedures.
	1.11 Work schedule is prepared, to produce a quality outcome, follow sustainable energy principles and practices, and to minimise risk and damage to property, commerce, stock and individuals in accordance with established procedures.
	1.12 Road signs, barriers and warning devices are planned and positioned in accordance with given instructions, established procedures and requirements.

ELEMENT	PERFORMANCE CRITERIA
2 Carry out the control of safety compliance for vegetation work near live electrical apparatus.	2.1 OHS and sustainable energy principles and practices to reduce the incidents of accidents and minimise waste/energy are followed in accordance with given instructions, requirements and/or established procedures.
	2.2 Lifting, climbing, working aloft, and use of power tools/equipment, techniques and practices are observed in accordance with given instructions and, according to requirements to eliminate the prospects of incidents.
	2.3 Operational knowledge for controlling the safety compliance for vegetation work near live electrical apparatus is applied to the work to ensure safe systems of work are observed and completion is in an agreed timeframe and, to quality standards.
	2.4 Safety compliance is controlled and monitored for vegetation work near live electrical apparatus in accordance with given instructions, requirements and established procedures.
	2.5 Hazard warnings and safety signs are recognised and hazards and assessed OHS risks are reported/referred to the immediate authorised personnel for directions according to established procedures.
	2.6 Non-routine events are responded and referred to the immediate authorised personnel for directions according to established procedures.
	2.7 Work is performed in accordance with the work schedule and to requirements.
	2.8 Problems associated with the control of safety compliance and monitoring for vegetation work near live electrical apparatus is responded to using acquired known solutions and skills related to routine procedures to ensure work instructions and established procedures are met.
	2.9 Ongoing checks of quality of the work are undertaken in accordance with given instructions

ELEMENT	PERFORMANCE CRITERIA	
		and established procedures.
3 Complete the control of safety compliance for vegetation work near live electrical apparatus.	3.1	Work undertaken is checked against work schedule and anomalies reported to authorised personnel in accordance with established procedures.
	3.2	Accidents and/or incidents are actioned and reported to authorised personnel in accordance with established procedures.
	3.3	Work site is rehabilitated, cleaned-up, sustainable energy principles and practices applied, and made safe in accordance with given instructions and established procedures or an agreed standard.
	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	Appropriate personnel are notified of work completion according to established procedures.
	3.6	Requirements for returning work permit(s) and/or access authorisation permits are confirmed.
	3.7	Works completion records, report forms/data sheets are completed accurately in accordance with given instructions and established procedures within.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

8) 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 monitoring safety compliance for vegetation work near live electrical apparatus.
All knowledge and skills detailed in this unit should be contextualised to current industry practices and technologies.
KS01-TVC27A ESI vegetation control safety compliance monitoring
Evidence shall show an understanding of safety compliance monitoring of vegetation control work in an ESI environment to an extent indicated by the following aspects:
T1 Responsibilities of a safety observer encompassing:

- Commonwealth, State and local government legislation, standards, codes, supply authority regulations and or enterprise requirements including relevant certification and licensing applicable to the duties and responsibilities of a safety observer
- Areas of responsibility such as:
  - Covering understanding of their responsibilities and
  - The responsibilities of others at the site.
  - Importance of not getting involved in anything else.
- Protocols and procedures as per enterprise specific.
- Emergency response and rescue including First Aid etc
- Enterprise specific duties of a safety observer to observe.
- Techniques in observing others in the safe performance of their work
  - Understanding of the work to be undertaken.
- Safe Approach Distances for:
  - Vehicles
  - Plant/equipment
  - People
  - Hand held tools
  - Vegetation
- Special Limits of Approach for Authorised Persons Only
- Proximity to Electrical and Telecommunications Apparatus

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 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 – UET12". 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**	**Item List**

	demonstrated	
A	Confirm operational knowledge associated with the monitoring safety compliance for vegetation work near live electrical apparatus in all of the following:	Principles of electricity, the three phase power system. Power system. Recognition of aerial voltage systems. Identification of Low Voltage Aerial Circuits. Identification of High Voltage Aerial Circuits. "Safe working zone" and "Ordinary person zone" so defined by relevant authorities. Use of technical standards, acts, regulations, codes /guidelines and established/enterprise/asset owner's procedures. Switching requirements for Authorised tree trimming work on voltage overhead lines. System Control - Information required and function. Vicinity Permit - Information required and function. Sensitive Earth Fault (SEF) System Confirm environmental principals and procedures
B	Confirm safe practices associated with the monitoring safety compliance for vegetation work near live electrical apparatus in all of the following:	OHS safety practices and procedures. Electric shock and resuscitation. Release and rescue Role of the Safety Observer Events constituting an

		incident. Procedures in the event of/responding to, incidents. Selection of the best position for monitoring and controlling work (cutting) Selection of correct line of site to the cutter Correct observation of the work from ground level Constant analysis and decision making relevant to the safety of the work, taking into account prevailing site conditions (lay of the land) and on-going weather conditions
C	Confirm hazards and risk assessment procedures associated with the monitoring safety compliance for vegetation work near live electrical apparatus in all of the following:	Identifying hazards. Risk assessment procedures. Conducting work site hazard assessment Essential components of hazards assessment checks. Pre-job Hazard Assessment Check (HAC) Items Worksite hazard and risk assessment checklist Procedure for planned inspection
D	Confirm vegetation control associated with the monitoring safety compliance for vegetation work near live electrical apparatus in all of the following:	Identify tree types Confirm vegetation species and types Confirm vegetation cutting techniques for different vegetation Confirm appropriate vegetation machinery and equipment to be

		used Use of feeder route plans Conduct calculations related to loading and slinging
E	All of the following:	Duties of Safety Observer's at the work site
F	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 safely undertake actual monitoring of safety compliance for vegetation work near live electrical apparatus.

In addition to the resources listed above, in Context of and specific resources for assessment, evidence should show demonstrated competency working below ground, 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 Transmission, Distribution and Rail Traction Industry. 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)

There are no concurrent assessment recommendations for this unit.

Range Statement

RANGE STATEMENT

10) 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 be demonstrated in relation to monitoring and controlling vegetation work near live electrical apparatus and/or including the following:
Voltages exceeding 240 V, 11/22/33 and/or 66 KV
Includes observing, spotting, rendering warnings to stop unsafe work activities, and/or encroachment of ordinary persons, public, personnel and mobile plant and equipment into the safe approach distance (SAD) as defined for persons and mobile plant and equipment. A person designated as a Safety Observer, solely dedicated to the role, normally carries out this work.
Work and zones is in compliance with relevant State or Territory regulatory agencies/bodies, local government legislation, Industry bi-partite body – Guidelines/Codes of Practices or other related requirements for Safe work and access near live Electrical and Mechanical Apparatus.
Working safely up to the defined “ordinary person zone” near energised electrical apparatus (inc. electrical powerlines) for non-electrical worker/ordinary persons.
Risk assessment control measures that encompass job safety assessment.
Excludes any work that is or may be performed by other competent operatives within the defined “live work zone”
Electricity supply infrastructure assets and infrastructure constructions and excavations
Safe approach distances zones/Safe Working Clearance
It may also include other areas such as: Feeder route plans, infrastructure constructions and excavations, rural applications, road construction, pavements and inclement weather
Ground configuration – undulations, uneven ground, soft ground, damp, etc
Plant, machinery, equipment and tools for use in electrical environments
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
- Documenting detail work events, record keeping and or storage of information
- Drawings and specifications
- Emergency

RANGE STATEMENT

- Environmental and sustainable energy procedures
- Environmental legislation
- Established procedures
- Fall prevention
- Hazards
- Identifying hazards
- Inspect
- Legislation
- MSDS
- Notification
- OHS practices
- OHS issues
- Permits and/or permits to work
- Personnel
- Quality assurance systems
- Requirements
- Work clearance systems

Unit Sector(s)

Not applicable.

Competency Field

Competency Field **11)**

Vegetation Units