



Australian Government

Department of Education, Employment and Workplace Relations

UETTDRVC23A Plan the removal of vegetation up to vegetation exclusion zone near live electrical apparatus

Release: 1

UETTDRVC23A Plan the removal of vegetation up to vegetation exclusion zone near live electrical apparatus

Modification History

Not applicable.

Unit Descriptor

Unit Descriptor

1) Scope:

1.1) Descriptor

This Competency Standard Unit covers the preparation for the controlled removal of vegetation near live electrical apparatus up to the live work zone as defined for both Authorised and Instructed Persons in the industry guidelines associated with live electrical apparatus. This includes electrical and communications conductors and cables/powerlines and associated equipment on poles and structures according to requirements and established procedures. It does not include the full gamut of rigging techniques and practices required of a Rigger or entry into to the safe approach distance (SAD) as defined for persons, mobile plant, equipment and specialised tools. It includes the preparation of a plan for the control and removal of vegetation, specification of appropriate chemical control methods, use of slinging and loading techniques and practices to be used, traffic management, and appropriate pruning and/or cutting techniques and practices (encompasses cutting plan) for given vegetation species to minimise regrowth within the electrical field according to requirements and procedures. Also included is the preparation of risk assessment control measures that encompass job safety assessment. Encompassed is 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

Prerequisite Unit(s) 4)

UETTDREL14A Working safely as a non electrical worker 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 for the development of the plan for the removal of vegetation up to	1.1 Work instructions are received and confirmed.
	1.2 Relevant requirements and established procedures to be followed for the development of

ELEMENT

vegetation exclusion zone near electrical apparatus.

PERFORMANCE CRITERIA

the work plan 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 confirmed.
- 1.4 Suggestions to assist in meeting the planning for the removal of vegetation up to the live work zone near live electrical apparatus outcomes are made to others involved in the work.
- 1.5 Hazards are identified, OHS risks are identified and reported according to established procedures.
- 1.6 Scope of responsibility under the relevant work permit(s) /access authorisation(s) are identified and confirmed according to requirements and established procedures with relevant personnel.
- 1.7 Resources including, plant, equipment, tools and personal protective equipment required for the job are identified in accordance with established procedures.
- 1.8 Relevant responsibility associated with First Aid, Aerial Rescue, Tree-Top Rescue and/or other related work safety procedures at the worksite are confirmed, where appropriate, 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 requirements are confirmed according to given instructions and planning of the work schedule for a quality outcome and to meet sustainable energy principles and practices to minimise risk and damage to property, commerce, stock, and individuals in accordance and established procedures.
- 1.11 Road signs, barriers and warning device

ELEMENT

PERFORMANCE CRITERIA

		requirements and positioning in accordance with given instructions and requirements are confirmed.
2	Carry out the development of the Plan for the removal of vegetation up to vegetation exclusion zone near live electrical apparatus	<p>2.1 OHS and sustainable energy principles and practices to reduce the incidents of accidents and minimise waste are confirmed in accordance with given instructions, requirements and/or established procedures.</p> <p>2.2 Lifting, climbing, working aloft, and use of power tools/equipment, techniques and practices are confirmed in accordance with given instructions and, according to requirements confirmed to eliminate the prospects of incidents.</p> <p>2.3 Operational knowledge for planning the removal of vegetation up to the live work zone near live electrical apparatus to be applied to the work is confirmed to ensure completion will be within an agreed timeframe and, to quality standards with a minimum of waste according to requirements and established procedures.</p> <p>2.4 Produce plan for the removal of vegetation up to the live work zone near live electrical apparatus accordance with given instructions and established procedures.</p> <p>2.5 Hazard warnings and safety signs are recognised and hazards and assessed OHS risks are monitored and reported/referred to the immediate authorised personnel for directions according to established procedures.</p> <p>2.6 Non-routine events are referred to the immediate authorised personnel for directions according to established procedures.</p> <p>2.7 Development of the plan is carried out in accordance with the work schedule and to requirements.</p> <p>2.8 Problems associated with producing the plan for the removal of vegetation up to the live work</p>

ELEMENT

PERFORMANCE CRITERIA

- zone live electrical apparatus are attended to according to acquired known solutions and skills related to routine procedures to ensure the plan is produced as per instructions and established procedures.
- 2.9 Ongoing checks of quality of the work are undertaken in accordance with given instructions and established procedures.
- 3 Complete development of the plan for the removal of vegetation up to vegetation exclusion zone near electrical apparatus.
- 3.1 Work undertaken is checked against work schedule and anomalies reported to Authorised personnel in accordance with established procedures.
- 3.2 Potential accidents and/or incidents are identified and reported to authorised personnel in accordance with established procedures.
- 3.3 Work site to be rehabilitated, cleaned up and made safe is identified in accordance with given instructions and 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 Appropriate personnel are notified of work completion according to established procedures.
- 3.6 Works completion records, report forms/data sheets are completed accurately in accordance with given instructions and established procedures.

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 planning for the removal of vegetation up to vegetation exclusion zone near live electrical apparatus.

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

KS01-TVC23A Vegetation control planning

Evidence shall show an understanding of planning the removal of vegetation near live electrical apparatus to an extent indicated by the following aspects:

T1 Hazard assessment and risk management appropriate to the level of responsibility in the vegetation control field encompassing:

- Identifying the terminologies associated with risk assessment - risk management, risk analysis and risk evaluation activities and eliminating or minimising risk. This incorporates principles and purposes of risk management, processes for conducting risk assessment including risk analysis and risk evaluation activities for selecting and implementing appropriate options for eliminating or minimising risk.
- Relationship risk assessment has with vegetation control
- Basic principles of hazard and risk assessment - what to look for, basic procedures in conducting work-site hazards/risk assessment, contingences, essential components of hazard assessment checks, identification of hazards associated with work function and the environment (type of equipment to be used, location of the work-site, condition of the surrounding vegetation and climate conditions)
- Techniques in the elimination or minimization of hazards/risk - identification of resources available, identification of appropriate methodology in hazard control, identification of the hierarchy of control, formulating a worksite hazard and risk assessment checklist.
- Pre-job Hazard Assessment Check (HAC) Items - JSAs, planned inspection, hazard risk assessment form, prompt sheet reference (VMP2 - electrical hazards, VMP1 – general, VMP3 - vegetation)
- Recognizing electrical hazards
- Evaluation of risk assessment and management procedures

T2 Procedures and protocols for access to powerline facilities and isolation of powerlines encompassing:

- Standards, codes, legislation, supply authority regulations and or enterprise requirements associated with accessing powerline facilities together with the relevant certification and licensing (if required)
- Powerline access permit procedures and documentation
- Work place signage - traffic management, unauthorised access, public protection
- Powerline distribution voltages
- Switching requirements for authorised tree trimming work on high voltage overhead lines - information required by system control, information to be

REQUIRED SKILLS AND KNOWLEDGE

included on the 'vicinity permit', system control functions, authorised work adjacent to an area under an access permit, communications.

- Weather conditions at work site
- Work team communications
- Adequate light at work site

T3 Principles of tree preservation encompassing:

- Standards, codes, legislation, supply authority regulations and or enterprise requirements associated with endangered species of
- Identifying site conditions and inspection of tree and or vegetation encompassing:
- Suitability of this type of tree in this location
- Identifying hazards, assessing and controlling risks with this tree in this location
- Inspecting location and determining work methods for tree preservation - tree defects, tree diseases, insect attacks
- Relationship to how a tree grows to vegetation control - Australian tree families
- Tree preservation - methods of clearing vegetation, tree trimming, pruning, tree felling
- Safety work measures/methods
- Prevention of soil erosion
- Regrowth control
- Disposal of debris
- Heritage, significant and urban/rural vegetation
- Fire prone areas

T4 Vegetation control using chemicals encompassing:

- Commonwealth, State and local government legislation, standards, codes, supply authority regulations and or enterprise requirements including relevant certification and licensing applicable to the control of vegetation using chemicals
- Chemical treatment principles - types and characteristics of chemical(s) to be used, regulations and procedures in handling and transporting chemicals safely, application procedures of chemicals to be used, mixing desirable quantities, pouring, spraying, and storing procedures
- Techniques in handling equipment to eliminate/reduce risks to the environment from spillages of oils, herbicides, pesticides and chemicals from such equipment as
- Methods of disposing and storage of herbicides, pesticides and chemicals
- Safety precautions specific to working with chemicals - safe working practices and procedures, Occupational Health and Safety hazards and precautions, identification of OHS hazards, assessment and control of OHS risks, types, selection, maintenance, storage and use of personal protective equipment (appropriate selection of complete or partial body protection and processes of inspection prior to use and cleaning after use), dangers of working in confined spaces and at heights while using chemicals, permit to work systems and isolation procedures/protocols

REQUIRED SKILLS AND KNOWLEDGE

- Safe working policies, procedures and practices when using/operating specialised chemical equipment
- Emergency response and rescue, including First Aid etc
- Reasons and provisions of MSDSs
- Precautions in the use of machinery, plant, equipment and tools when working with chemicals
- Required safety techniques in the handling of herbicides - use and application of chemical agents, transporting and storage of chemicals and solvents, cleaning of equipment used in applications, procedures for spillages and contamination outside of vegetation control area.

T5 Enterprise specific — policy and procedure instructions encompassing:

- Responsibilities and duty of care of employer and employee relationship
- Methods of obtaining the up-to-date information on enterprise policy and procedures
- Rules and regulations
- Induction into workplace - location of work area and storage area, timetable, uniform, personal well-being, housekeeping rules, emergency procedures, evacuation procedures
- Techniques when deal with others - working in teams, customer relation, complaint and issues procedures.
- Overview of enterprise professional development - fire fighting procedures, fatigue management, training and competency development - understanding and promotion

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 demonstrated	Item List
A	Confirm operational knowledge associated with the planning of the removal of vegetation 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" so defined by relevant authorities. Use of technical standards, acts, regulations, codes /guidelines and

		<p>established/enterprise/asset owner's procedures.</p> <p>Confirm environmental principals and procedures.</p>
B	<p>Confirm safe practices associated with the planning of the removal of vegetation in all of the following:</p>	<p>OHS safety practices and procedures.</p> <p>Electric shock and resuscitation.</p> <p>Release and rescue</p> <p>Role of the Safety Observer</p> <p>Events constituting an incident.</p> <p>Procedures in the event of/responding to, incidents.</p> <p>Hierarchy and methods of identifying and controlling hazards.</p> <p>Risk assessment procedures.</p> <p>Selection of the best position for monitoring and controlling work (cutting)</p> <p>Selection of correct line of site to the cutter</p> <p>Correct observation of the work from ground level</p> <p>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.</p>
C	<p>Confirm vegetation control associated with the planning of the removal of vegetation in all of the following:</p>	<p>Identify tree types</p> <p>Confirm vegetation species and types</p> <p>Confirm vegetation cutting techniques for different vegetation</p>

		<p>Confirm appropriate vegetation machinery and equipment to be used</p> <p>Use of feeder route plans</p> <p>Conduct calculations related to loading and slinging.</p>
D	At least one occasion	<p>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.</p>

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 planning for the removal of vegetation up to the vegetation exclusion zone 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 preparation for the controlled removal of vegetation around live powerlines up to the live work zone as defined for both Instructed and Authorised Persons in the industry guidelines associated with live electrical apparatus.

Includes electrical and communications conductors and cables/powerlines and associated equipment on poles and structures according to requirements and established procedures.

Excludes the full gamut of rigging techniques and practices required of a Rigger or entry into to the safe approach distance (SAD) as defined for persons, mobile plant, equipment and specialised tools.

Includes the preparation of a plan for the control and removal of vegetation, specifying appropriate chemical control methods, using slinging and loading techniques and practices to be used, traffic management, and appropriate pruning and/or cutting techniques and practices (encompasses cutting plan) for given vegetation species to minimise regrowth within the electrical field according to requirements and procedures.

Includes the preparation of risk assessment control measures that encompass job safety assessment and 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 and in some instances vegetation.

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 “ordinary person zone”

Electricity supply infrastructure assets including electrical apparatus, electrical and communication conductors, and equipment

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

Plant, equipment and tools for use in electrical environments for vegetation control, loading and slinging equipment.

Vegetation control includes: site rehabilitation, horticultural vegetation cutting and pruning techniques to minimise regrowth - chemicals and physical cutting and pruning tools/equipment, concerns for vegetation type/species and significance – heritage, significant, urban/rural; vegetation fire prone areas and areas of particular significance.

Constants and variables included in this unit are fully described in the Definitions

RANGE STATEMENT

Section 1 of this volume and form an integral part of the Range Statement.

- 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
- Environmental and sustainable energy procedures
- Environmental legislation
- Environmental management documentation
- 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
- Testing procedures
- Work clearance systems

Unit Sector(s)

Not applicable.

Competency Field

Competency Field 11)

Vegetation Units