



Australian Government

Department of Education, Employment and Workplace Relations

UETTDRCVC26A Cut vegetation at ground level near live electrical apparatus

Release: 1

UETTDRVC26A Cut vegetation at ground level near live electrical apparatus

Modification History

Not applicable.

Unit Descriptor

Unit Descriptor

1) Scope:

1.1) Descriptor

This Competency Standard Unit covers cutting and/or pruning vegetation at ground level and removal of vegetation obstructions up to the live work zone as defined for both Instructed and Authorised Persons in the industry guidelines associated with live electrical apparatus using the established cutting plan relevant to the vegetation type. It encompasses the safe use of appropriate/specialised tools and equipment according to requirements and established procedures. It includes safely accessing trees to install restraints/slings, removing small trees in a safe manner and, clearing debris from the felling site to eliminate the occurrence of electrical incidents. It DOES NOT include entry of persons, mobile plant, equipment, and/or specialised tools into to the safe approach distance (SAD) as defined.

Also included is the preparation of risk assessment control measures that encompass job safety assessment. All work 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 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
UETTDRCVC23A	Plan the removal of vegetation up to vegetation exclusion zone near live

Prerequisite Unit(s) 4)

electrical apparatus

UETTDRCVC27A

Monitor safety compliance for
vegetation work 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 cut/prune vegetation at ground level up to vegetation exclusion zone near live electrical apparatus.	1.1 Work instructions and cutting plan are received and confirmed.
	1.2 Relevant requirements and established procedures to be followed for the work to be performed in accord with the cutting 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 and/or improve meeting the cutting of vegetation at ground level outside of the live work zone near 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) identified according to requirements and established procedures with relevant personnel.
	1.7 Resources including, vehicles, equipment, tools and personal protective equipment required for the job are obtained and, confirmed in working order according to established procedures.
	1.8 Relevant responsibility associated with First Aid 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 including environmental values are identified and referred to appropriate personnel in accordance with industry/acceptable /community standards.

ELEMENT	PERFORMANCE CRITERIA
	1.10 Site 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. 1.11 Road signs, barriers and warning devices are obtained and positioned in accordance with given instructions and requirements. 1.12 Pre-operational checks are undertaken to confirm safe and correct operation of tools and equipment for safe use near live electrical apparatus according to requirements and established procedures. 1.13 Work permit(s)/access authorisation(s) are confirmed and received, where applicable, for commencement of the work according to requirements and established procedures with relevant personnel.
2 Carry out the cutting/pruning of vegetation at ground level up to vegetation exclusion zone near live electrical apparatus.	2.1 OHS and sustainable energy principles and practices to reduce the incidents of accidents and minimise waste are followed in accordance with given instructions, requirements and/or established procedures. 2.2 Lifting, climbing, working in confined spaces, and use of tools/equipment, techniques and practices are safely followed in accordance with given instructions and, according to requirements confirmed to eliminate the prospects of incidents. 2.3 Operational knowledge for cutting vegetation species and types at ground level outside of the live work exclusion zone near electrical apparatus is confirmed to ensure completion in an agreed timeframe and, to quality standards with a minimum of waste according to requirements and established procedures. 2.4 Cutting of vegetation at ground level outside of the live work zone near electrical apparatus is carried out in accordance with the cutting plan

ELEMENT**PERFORMANCE CRITERIA**

		and work schedule, and given instructions 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 referred to the immediate authorised personnel for directions according to established procedures.
	2.7	Problems associated with cutting vegetation at ground level outside of the vegetation exclusion zone near electrical apparatus are attended to using acquired known solutions and skills related to routine procedures to ensure work instructions and established procedures are met.
	2.8	Ongoing checks of quality of the work are undertaken in accordance with given instructions and established procedures.
	2.9	OHS and sustainable energy principles and practices to reduce the incidents of accidents and minimise waste are followed in accordance with given instructions, requirements and/or established procedures.
3	Complete the cutting/pruning of vegetation at ground level up to vegetation exclusion zone near live electrical apparatus.	3.1 Work undertaken is checked against cutting plan and 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

ELEMENT**PERFORMANCE CRITERIA**

with established procedures.

- 3.5 Appropriate personnel are notified of work completion according to established procedures.
- 3.6 Post-operational checks, minor maintenance and/or relevant documentation of equipment and tools are conducted according to requirements.
- 3.7 Requirements for returning work permit(s) and/or access authorisation permits are confirmed, where applicable.
- 3.8 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 cutting vegetation at ground level outside '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-TVC26A ESI vegetation control – ground level

Evidence shall show an understanding of vegetation control at ground level near live electrical apparatus to an extent indicated by the following aspects:

T1 Enterprise specific vegetation control equipment encompassing:

- Types and application of vegetation cutting tools – chainsaws, brush cutters, hydraulic pruning saws, tool line, specialised pruning tools (cocky beaks and pruning saws)
- Types and application of vegetation mulching tools
- Types and application of herbicide application equipment
- Purpose and use of cutting plans relevant to the vegetation type
- Cutting techniques of vegetation control tools and equipment
- Techniques in undertaking different branch cuts - scarf under-cut, top cut technique, top scarf - bottom-back cut technique, side scarf opposite back-cut technique
- Pre-operational checks on vegetation control tools and equipment
- Techniques in safely using vegetation control equipment - visual inspection of vegetation control equipment, methods of using equipment at heights and in confined spaces, precautions to note during use of equipment (proximity of other personnel, proximity of powerlines and obstacles, length of power lead and possible fire danger due to sparks)
- Types of personal protective equipment used in conjunction with vegetation control equipment - head protection, eye protection, hearing protection, hand protection, foot protection, body protection, general protection.
- Basic maintenance of vegetation control equipment - cleaning, proper storage, basic repair and replacement and testing for compliance to manufacturer's and OHS requirements.

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 cutting vegetation at ground level 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/a sset owner's procedures. 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 cutting vegetation at ground level 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. Methods of identifying hazards. Risk assessment procedures for both worksite and pre-job checklist. 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 vegetation control associated with the cutting vegetation at ground 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
D	Confirm the safe cutting of vegetation	Use of cutting plans relevant to the

	at ground near live electrical apparatus in all of the following:	vegetation type. Safe use of all relevant personnel protective equipment Safe use of tools and equipment such as hand saws, chainsaws, specialised tools and equipment and or power pruners at ground level. Safe use of chemical control and application at ground level. Safe cutting, pruning and tree trimming techniques at ground near electrical apparatus Safe stump removal Conduction of pre and post operational checks, inspection and minor maintenance on tools and equipment. Safe deployment of equipment and tools in varying ground conditions and weather. Safe debris removal
E	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 cutting of vegetation at ground level outside 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)

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

RTC2005A Fell small trees

RTC2706A Apply chemicals under supervision

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 cutting and/or pruning vegetation at ground level and removal of vegetation obstructions up to the live work zone as defined for both Authorised and Instructed Persons in the industry guidelines associated with live electrical apparatus.

Use of established cutting plan(s) relevant to the vegetation type

Safety practices includes; the safe use of appropriate/specialised tools and equipment and may include safely accessing trees to install restraints/slides, removing tree limbs in a safe manner, clearing debris from the felling site to eliminate the occurrence of electrical incidents and reparation of risk assessment control measures that encompass job safety assessment.

Excludes entry of persons, mobile plant, equipment, and/or specialised tools into to the safe approach distance (SAD) as defined.

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 “safe working zone” near energised electrical apparatus (inc. electrical powerlines) for non-electrical worker/ordinary persons.

Excludes any work that is or may be performed by other competent operatives within the defined “live work zone”

Electricity supply infrastructure assets condition – sagging, swaying, ties, cross arms, poles, insulators, conductors, service wires, electrical apparatus/equipment, etc.

Infrastructure constructions and excavations

Safe approach distances zones/Safe Working Clearance

Other areas which may need to be taken into consideration are: work permit(s) and/or access authorisation permits, technical standards and Industry Guidelines, rural applications, inclement weather, ground configuration and access – undulations, uneven ground, soft ground, damp, road construction, pavements, etc, feeder route plans and the use of technology and mathematical calculations

Plant, equipment and specialised tools for use in electrical environments

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.

RANGE STATEMENT

Use of technology and mathematical calculations

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
- 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