Australian Government

Department of Education, Employment and Workplace Relations

UETTDRVC32A Use specialised plant to cut vegetation above ground level near live electrical apparatus

Release: 1

INDUSTRY SKILLS COUNCILS
Creating Australia's Future

UETTDRVC32A Use specialised plant to cut vegetation above ground level near live electrical apparatus

Modification History

Not applicable.

Unit Descriptor

Unit Descriptor **1) Scope:**

1.1) Descriptor

This Competency Standard Unit covers removal of vegetation above ground level, up to the live work zone as defined for both Authorised and Instructed 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 specialised plant and equipment according to requirements and established procedures. It includes safely accessing trees from ground level to remove tree limbs in a safe manner. 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 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 and 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
UETTDRVC27A	Monitor safety compliance for vegetation work near live electrical apparatus

Prerequisite Unit(s) **4)**

UETTDRVC33A	Apply pruning techniques to vegetation control 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 Select and prepare specialised plant and for use near live electrical apparatus.	1.1 Specialised plant is selected and prepared to job requirements and confirmed against work plan.
	1.2 Routine pre-operational checks of specialised plant are completed to manufacturers' specifications and enterprise requirements.
	1.3 OHS hazards in the workplace are recognised, risk assessed and minimised according to enterprise requirements.
	1.4 The candidate is able to recognise and follow the requirements for safe working procedures and legislation during transport.
	1.5 The candidate has ensured procedures and risk control measures are in place and followed in the event of an incident.
	1.6 The candidate appropriately reported any incidents according to established procedures.
2 Operate Specialised Plant near live electrical apparatus.	2.1 Plant is operated in a safe and controlled manner and monitored for performance and efficiency.
	2.2 Risks to self, others and the environment are anticipated and minimisation strategies implemented accordingly.
	2.3 Suitable personal protective clothing and equipment is selected, used, maintained and stored according to OHS requirements.
	2.4 Environmental implications associated with specialised plant operation are identified, assessed and reported according to established procedures.
	2.5 Non-routine events are referred to the immediate authorised personnel for directions according to established procedures.

ELEMENT	PERFORMANCE CRITERIA
3 Complete operations and report on specialised plant operation near live electrical apparatus.	3.1 Shut-down procedures for specialised plant are completed to manufacturers' specifications and enterprise requirements.
	3.2 Specialised plant operational records are completed and maintained according to enterprise requirements.
	3.3 Malfunctions, faults, irregular performance and damage to specialised plant are detailed and reported according to enterprise requirements.
	3.4 Specialised plant is cleaned, secured and stored according to manufacturers' specifications, OHS and enterprise requirements.

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 operating vegetation control plant, and equipment near live electrical apparatus.
All knowledge and skills detailed in this unit should be contextualised to current industry practices and technologies.
KS01-TVC32A ESI vegetation control specialist plant use
Evidence shall show an understanding of using specialised plant to cut vegetation above ground level near live electrical apparatus to an extent indicated by the following aspects:
T1 Enterprise specific vegetation control specialised plant encompassing:

- Types and application of specialised plant – sky trim, bushy, jarraff, hedging tractor, timber pro (harvester), etc.
- Purpose and use of cutting plans relevant to the vegetation type
- Cutting techniques of vegetation control specialised plant
- Techniques in undertaking different branch cuts - scarf under-cut, top cut technique, top scarf - bottom-back cut technique, side scarf opposite back-cut technique, including size of cut.
- Understanding of definitions of drop zone and full zone.
- Pre-operational checks on vegetation control specialised plant
- Electrical test requirements e.g. test and certify periodically.
- Techniques in safely using vegetation control specialised plant - visual inspection of vegetation control specialised plant, methods of using equipment at heights and in confined spaces, precautions to note during use of specialised plant (proximity of other personnel, proximity of powerlines and obstacles, role of safety observer, length of power lead and possible fire danger due to sparks)
- Types of personal protective equipment used in conjunction with vegetation control specialised plant - head protection, eye protection, hearing protection, hand protection, foot protection, body protection, general protection.
- Basic maintenance of vegetation control specialised plant - 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 demonstrated**	**Item List**
A	Confirm what range of specialised plant are covered in this standard in at least 3 of the following:	Mechanical Tree Trimmer. Boom-operated Mower. Boom-operated Groomer Hedgers *Pre and post operational checks, inspections and minor maintenance. *Safe deployment of machinery and equipment in varying conditions and weather. (* Must do)
B	Determine what is involved in routine pre-operational checks of specialised plant and equipment.	Pre-start and safety checks as per manufactures specifications. Checking and confirming equipment calibration settings and operating methods Observing and monitoring noise levels for correct operation. Preparation of independently powered tools may include cleaning, priming, tightening, basic repairs and adjustments. Identify and segregate unsafe or faulty equipment for repair

		or replacement.
C	Determine what enterprise requirements apply to this standard.	Standard Operating Procedures (SOPs), Industry standards, Production schedules, Material Safety Data Sheets (MSDSs), Work notes, Product labels, Manufacturers specifications, Operators manuals, Enterprise policies and procedures (including waste disposal, Recycling and re-use guidelines), OHS procedures, Supervisors oral or written instructions, Work and routine maintenance plans.
D	Determine from the following what OHS hazards are encountered in the workplace.	Exposure to; loud noise, fumes, solar radiation, dust, ergonomic hazards associated with posture and vibration, hazardous substances (fuel, oils, fertiliser), oil and grease spills. Presence of: bystanders, livestock and wildlife, difficult terrain and varying gradients, potholes, ditches, gullies, embankments, obstacles (rocks, logs, fences, debris, buildings), extreme weather

		conditions, electricity, overhead powerlines, mechanical malfunctions and exposed moving parts, and other machinery including hydraulics.
E	Confirm how safe and controlled operation of machinery and equipment has been demonstrated.	This should include: Appropriate selection and use of specialised plant and equipment. Using operational techniques for the specific terrain (on and off-road environments) and weather conditions. Maintaining working loads within specifications including ensuring hitch-points are operated at the correct height.
F	Determine what personal protective clothing and equipment is relevant to this standard.	Boots, hat/hard hat, overalls, gloves, protective eyewear, hearing protection, respirator or facemask, and sun protection (sun hat, sunscreen).
G	Confirm what environmental implications associated with the operation of machinery and equipment.	Such as: the use and disposal of maintenance debris and hazardous substances, run-off flows of water and cleaning agents from servicing maintenance and cleaning activities Soil disturbance and dust problems

H	Confirm what procedures are included in the shut-down of machinery and equipment.	As per manufacturers safe operating procedures
I	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 operation and routine maintenance of specialised plant and equipment 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:
RTC2307A Operate machinery and equipment

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 is to be demonstrated in relation to the operation and routine maintenance of specialised plant that encompasses driving/flying and associated licenses, such as Mechanical Tree Trimmer, boom-operated mowers, and the like used near live electrical apparatus.
Excludes specialised plant and equipment such as wood-chippers, chainsaws, brush cutters, slashers/tritters, power pruners, chemical control applicators and other related associated and powered vegetation control machinery and equipment used at ground level near live electrical apparatus.
Preparation of risk assessment control measures that encompass job safety assessment and includes traffic control measures 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 use of equipment near live Electrical and Mechanical Apparatus.
Prevailing Licensing Requirements
Excludes any work that is or may be performed by other competent operatives within the defined “ordinary person zone”
Working near energised live electricity supply infrastructure assets
Includes periodical and pre-operational checks of the specialised plant for safe operation and conduct of maintenance checks and, associated documentation
Safe approach distances zones/Safe Working Clearance
Work permit(s) and/or access authorisation permits
Technical standards and Industry Guidelines
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, 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

RANGE STATEMENT

- Emergency
- 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