



Australian Government

UETTDRVC34 Undertake release and rescue from a tree near live electrical apparatus

Release: 1

UETTDRCV34 Undertake release and rescue from a tree near live electrical apparatus

Modification History

Release 1. This is the first release of this unit of competency in the UET Transmission, Distribution and Rail Sector Training Package.

Application

This unit covers the process of release and rescue of a tree climber working near live electrical apparatus, where an injured or unconscious tree climber is safely brought to the ground from a tree. Rescue and release safe working procedures requires hazard identification, basic first aid and emergency procedures, and tree climbing techniques. Release and rescue are likely to be undertaken in emergency situations with little or no supervision. Discretion and judgement are required in the selection of equipment, organisation of rescue, and associated actions.

Competency is demonstrated by the application of knowledge and skills to a range of rescue tasks and roles usually within established enterprise guidelines.

It includes safely accessing trees from above ground level to install restraints/slides, removing tree limbs 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 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 are in compliance with relevant state or territory regulatory agencies/bodies, local government legislation, industry bi-partite bodies, guidelines/codes of practices or other related requirements for safe work and access near live electrical and mechanical apparatus.

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 removal of vegetation around live powerlines up to the live work zone, including near live electrical apparatus, and regulations that directly relate to work health and safety (WHS)/occupational health and safety (OHS) and/or contracts of training where they apply.

Pre-requisite Unit

Common Unit Group

UEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace

UETTDREL13 Comply with sustainability, environmental and incidental response policies and procedures

UETTDREL14 Working safely near live electrical apparatus as a non-electrical worker

UETTDRC23 Plan the removal of vegetation up to vegetation exclusion zone near live electrical apparatus

UETTDRC27 Monitor safety compliance of vegetation control work in an ESI environment

Competency Field

Vegetation

Unit Sector

Not applicable.

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Prepare for release and rescue from a tree near live electrical apparatus

PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

- 1.1** WHS/OHS policies and procedures to be followed for the work to be performed are received and confirmed
- 1.2** Relevant requirements and established procedures to be followed for the work to be performed in accordance with the aerial rescue are discussed with all personnel to establish and confirm the work schedule
- 1.3** Enterprise electrical apparatus and voltages are identified and safe working clearances and conductive path determined
- 1.4** Rescue equipment and first aid kit are checked to ensure they are complete and placed within easy access
- 1.5** Resources, including, equipment, tools, approved platforms and personal protective equipment (PPE), required for the job are selected, checked in working order and maintained according to established procedures
- 1.6** Emergency communication system used to summon emergency services is checked according to manufacturer specifications and enterprise work procedures

- 1.7 Emergency plan is confirmed and clarified with work team prior to work being undertaken
 - 1.8 Hazards are identified and WHS/OHS risks associated with working near live electrical apparatus are identified and reported according to established procedures
 - 1.9 Scope of responsibility under the relevant work permits/access authorisations is identified according to requirements and established procedures with relevant personnel
 - 1.10 Relevant responsibilities associated with first aid, working aloft, 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
 - 1.11 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
- 2 **Carry out the release and rescue from a tree near live electrical apparatus**
 - 2.1 WHS/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 aloft, and use of tools/equipment, techniques and practices are safely followed in accordance with given instructions and according to requirements to eliminate the prospects of incidents
 - 2.3 Operational knowledge for the release and rescue from a tree near electrical apparatus is confirmed according to requirements and established procedures
 - 2.4 Emergency situation is assessed and emergency management plan activated according to enterprise requirements and established procedures
 - 2.5 Assistance is requested from work team and/or public according to requirements and enterprise procedures,

where required

- 2.6** Hazard warnings and safety signs are recognised and hazards and assessed WHS/OHS risks monitored and suitable controls implemented/reported/referred to immediate authorised personnel for directions according to established procedures
- 2.7** Appropriate access equipment to effect rescue is identified according to enterprise standards
- 2.8** Nature of the injury is assessed according to established procedures
- 2.9** Casualty and rescuer are safely secured according to enterprise standards
- 2.10** Injuries are assessed to determine whether or not to move casualty based on standard first aid procedures and risk assessment
- 2.11** Casualty with possible neck or spinal injuries is supported (but not moved) to await expert medical treatment
- 2.12** First aid able to be performed above ground is applied, as required, in line with standard procedures
- 2.13** Instructions to ground staff and climbers are communicated clearly and concisely according to established procedures
- 2.14** Casualty is prepared for descent according to first aid and risk assessments
- 2.15** Casualty is lowered safely to the ground with support of rescuer
- 2.16** Non-routine events are referred to immediate authorised personnel for directions according to established procedures
- 3 Complete the release and rescue from a tree near live electrical apparatus**
 - 3.1** First aid is applied on the ground according to need and industry standard procedures
 - 3.2** Emergency assistance is obtained in accordance with emergency plan
 - 3.3** Accidents and/or incidents are actioned and reported to

authorised personnel in accordance with established procedures

- 3.4** Worksite is rehabilitated, cleaned up, made safe and sustainable energy principles and practices applied in accordance with given instructions and established procedures or an agreed standard
- 3.5** Tools, equipment and any surplus resources and materials are, where appropriate, cleaned, checked and returned to storage in accordance with established procedures
- 3.6** Appropriate personnel are notified of work completion according to established procedures
- 3.7** Post-operational checks, minor maintenance and/or relevant documentation of equipment and tools/platforms are conducted according to requirements
- 3.8** Work completion records of release and rescue, report forms/data sheets are completed accurately in accordance with given instructions and established procedures

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions may be found in the Companion Volume Implementation Guide.

Unit Mapping Information

This unit replaces and is equivalent to UETTDRC34A Undertake release and rescue from a tree near live electrical apparatus.

Links

UET Training Package Companion Volume Implementation Guide is found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=229bace1-b7bc-4653-9300-dffb13ecfad7>

Assessment Requirements for UETTDRVC34 Undertake release and rescue from a tree near live electrical apparatus

Modification History

Release 1. This is the first release of this unit of competency in the UET Transmission, Distribution and Rail Sector Training Package.

Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria on at least two separate occasions and include:

- applying relevant work health and safety (WHS)/occupational health and safety (OHS) requirements, including the use of risk control measures
- applying sustainable energy principles and practices
- confirming all of the following:
 - WHS/OHS safety practices and procedures
 - basic first aid, electric shock and resuscitation
 - procedures in the event of/responding to incidents
 - analysis and decision making relevant to the safety of the work taking into account prevailing site conditions (lay of the land) and ongoing weather conditions
- given a rescue situation, confirming the selection of the relevant rescue equipment from the following:
 - first aid kit
 - emergency contact numbers
 - harness
 - lifeline
 - prussik loop
 - karabiners
 - climbing spurs
 - flipline/polestrap
 - pulleys
 - tube tape
- given a rescue situation, confirming the selection of the required safety equipment from the following:
 - pedestrian barriers
 - traffic barriers
 - warning signs
 - road signs

- danger signs
- flashing lights
- traffic bollards
- safety mesh
- witches hats
- given a rescue situation, confirming the selection of the personal protective equipment (PPE) from the following:
 - steel cap boots
 - six point safety helmet
 - ear protection
 - eye protection
 - cut resistant trousers or chaps
 - hi vis clothing
 - close fitting work clothes
 - gloves
- confirming emergency communication systems used to summon emergency services using the following:
 - checked for good working order and adequate battery power/within range for:
 - mobile phone
 - landline
 - two-way radio
- confirming an emergency plan is put into action dealing with the following:
 - the location and selection of the appropriate emergency contact numbers for:
 - ambulance
 - medical centre police
 - fire brigade and/or electrical company
 - the site location details, such as:
 - grid reference
 - first aiders and procedures
- confirming how a casualty response may be determined incorporating all of the following:
 - verbal/non-verbal communication
 - observation
 - observation noted:
 - patient conscious
 - extent of patient injuries
 - patient ability to assist in their rescue
- identifying hazards associated with rescue that need to be assessed from all of the following:
 - electrical wires
 - energised trees and equipment
 - unstable branches or structures

- insect swarm
- climbing
- fatigue
- moving vehicles and equipment
- heat and cold
- manual handling
- presence of blood and other bodily fluids
- assessing controls are implemented to minimise the risk of WHS/OHS hazards from all of the following:
 - enterprise WHS/OHS policies and procedures
 - securing of the site
 - appropriate use of PPE
 - appropriate use of safety equipment, such as signage and protective barriers
 - safe operation of tool, equipment and machinery
 - correct manual handling
 - basic first aid available on site
 - process and procedures in reporting problems to supervisors/emergency services
 - availability of drinking liquids and warm clothing
- determining the selection and use of appropriate access equipment required to effect rescue using the following:
 - climbing spikes
 - ropes
 - climbing harness
 - safety lines
 - aerial lifts
 - ladder
 - crane or elevated work platform (EWP)
- demonstrating how the casualty will be prepared for descent incorporating the following:
 - immobilising the head and neck
 - setting life lines
 - use of slings
 - harnesses and pulleys
 - releasing the flip line
 - use of rescue stretcher
- demonstrating the following:
 - performing a release and rescue according to requirements and established procedures
- confirming the completion of the appropriate records for the release and rescue operations incorporating all of the following:
 - accident/incident reports
 - WorkCover forms

- risk assessment details
- PPE issue and replacement dates
- equipment maintenance checklists
- safety audits
- dealing with unplanned events on at least one (1) occasion.

Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria and include knowledge of:

- climbing techniques encompassing:
 - Commonwealth/state/territory and local government legislation, standards, codes, supply authority regulations and/or enterprise requirements, including relevant certification and licensing applicable to climbing for the purpose of vegetation control
 - items/structures that are and are not permissible to climb for vegetation control
 - safety precautions which are specific to climbing structures for the control of vegetation - safe working practices and procedures; WHS/OHS hazards and precautions; identification of WHS/OHS hazards; assessment and control of WHS/OHS risks; types, selection, maintenance, storage and use of PPE, including harnesses; dangers of climbing in confined spaces and at heights; permit to work systems and isolation procedures/protocols; safe working policies, procedures and practices when climbing; and emergency response and rescue, including first aid
 - techniques in rigging - safety procedures, including safety ropes and lines, checking and setting up equipment, load calculations/estimations, techniques in using rigging equipment, and determining the serviceability of ropes and other lowering devices
 - load charts - safe working load estimates - field formulas, branch and trunk calculations, mathematical calculations and use of technology related to loads, slings, weights, and height
 - tree climbing and pruning practices - safe climbing with ropes and harnesses; methods of ensuring operation of safety lines and ropes; roping techniques; load bearing equipment and lifts; purposes of restraints, straps, slings, bends and hitches; purposes of pulleys, maillon rapides, lowering drum and T-bar flying capstan
- basic emergency procedures in releasing a person from an energised position encompassing:
 - Commonwealth/state/territory and local government legislation, standards, codes, supply authority regulations and/or enterprise requirements, including relevant certification and licensing applicable to the requirements of releasing a person from energised situation
 - comprehension of EC24 release and rescue - detail a range of emergency situations that may arise during climbing operations, detail of resources available at the worksite, determining climber position with respect to live power lines in an emergency, assess response requirements, and determining the appropriate PPE to be used
 - techniques in undertaking emergency response procedures for the release of a climber - assessment of priorities of procedures to follow, including isolation of supply, procedures for contacting emergency services and power supply company/asset owners, assessing the possibility of safe rescue of the climber and the factors to consider, assessing the best

approach to rescuing the climber, and determining appropriate PPE

- techniques in climbing tree or structure
- techniques in safely removing climber from energised and/or de-energised supply
- techniques to the application of first aid procedures, including cardiopulmonary (CPR)
- techniques in lowering climber to the ground
- techniques in first aid procedures when climber is on the ground.

Assessment Conditions

Assessors must hold credentials specified within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must satisfy the Principles of Assessment and Rules of Evidence and all regulatory requirements included within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must occur in workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated conditions involving realistic and authentic activities that replicate operational workplace conditions.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Resources for assessment must include access to:

- a range of relevant exercises, case studies and/or other simulations
- relevant and appropriate materials, tools, equipment and PPE currently used in industry
- suitable work environment, facilities, equipment and materials
- applicable documentation, including workplace procedures, equipment specifications, regulations, codes of practice and operation manuals.

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