



Australian Government

ICTWHS205 Work safely near power infrastructure at a telecommunications workplace

Release: 1

ICTWHS205 Work safely near power infrastructure at a telecommunications workplace

Modification History

Release	Comments
Release 1	This version released with ICT Information and Communications Technology Training Package Version 5.0.

Application

This unit describes the skills and knowledge required to conduct telecommunications operations near substantial safety hazards. It includes applying a risk management approach to a limited range of predictable problems when working at heights near electrical distribution infrastructure, radiation devices, or other services in confined spaces. This unit also includes the preparation of risk control measures within scope of own role that encompass job safety analysis.

It applies to telecommunications workers who perform work functions such as rigging, telecommunications installation and maintenance, and/or any other activity that requires working safely and complying with requirements and/or established procedures near live electrical apparatus.

It does not include any work that is or may be performed by other competent operatives within the defined 'safe work zone', which is defined by relevant state/territory regulatory agencies/bodies, local government legislation, industry bi-partite body, guidelines/codes of practice or other related requirements for safe work and access near live electrical and mechanical apparatus.

Work functions in the occupational areas where this unit may be used are subject to regulatory requirements and may require a licence/registration in relation to:

- work health and safety
- electricity/telecommunications/gas/water industry safety and compliance
- industrial relations
- anti-discrimination.

Age limits for operating certain equipment may also be covered by commonwealth, state/territory or local government legislation and regulations.

This unit does not cover legislative requirements for confined space entry, elevating work platform (EWP) operations, traffic control, or spotter/safety observation.

Unit Sector

Telecommunications – Workplace Health and Safety

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare to work safely near live electrical apparatus	1.1 Receive and confirm instructions related to the work to be performed 1.2 Identify relevant requirements and established procedures to be followed and personnel to be contacted for the work to be performed 1.3 Receive and confirm work health and safety (WHS) policies and procedures and technical standards relevant to the work and worksite 1.4 Collaborate with other telecommunications workers in meeting the safety requirements for working near live electrical apparatus 1.5. Identify, receive and confirm scope of responsibility and issued work permit/s according to workplace requirements and established procedures 1.6 Identify and confirm that first aid, safety observers and/or other related work safety procedures are in place to be followed in the event of an incident 1.7 Identify processes for reporting customer issues to appropriate personnel 1.8 Confirm site and work schedule according to given instructions and established procedures 1.9 Use safe approach distances and apply safe work zones
2. Conduct risk assessment	2.1 Assess risks from electrical, radiation, gas and other services in or adjacent to the worksite according to established procedures 2.2 Assess safety of the worksite, earthing arrangements, and other services and support structures using appropriate monitoring equipment and according to established procedures 2.3 Complete a job safety analysis (JSA) or similar risk assessment record specific to site and work requirements, and report safety hazards to relevant personnel 2.4 Assess potential emergency situations relevant to the site 2.5 Take measurements to assess electrical potential or charge leakage into adjoining infrastructure according to established procedures 2.6 Perform electrical and mechanical pole tests to ensure it is safe to

ELEMENT	PERFORMANCE CRITERIA
	climb 2.7 Inspect all hand and power tools, ladders, climbing and lifting equipment apparatus before use
3. Apply enterprise risk management plan	3.1 Apply enterprise procedures to manage potential hazards and risks 3.2 Communicate and confirm risk management strategies with co-workers within scope of own role 3.3 Confirm safety procedures to ensure management of emergency situations are in place 3.4 Obtain safety equipment and personal protective equipment (PPE) 3.5 Delineate safe work zones and limits of approach to other services 3.6 Observe required road safety and traffic control measures according to established procedures 3.7 Implement safe strategies for working at heights and in confined spaces, according to regulatory requirements and within scope of own role
4. Complete work safely near live electrical apparatus	4.1 Report schedule and anomalies for completion and checking of work to authorised personnel, according to established procedures 4.2 Use safety equipment and PPE effectively 4.3 Use tested ladders, climbing and lifting equipment to work safely at heights, according to regulatory requirements and safety procedures 4.4 Operate hand and power tools safely at heights 4.5 Complete the work and ensure it complies with enterprise and industry earthing practices 4.6 Provide assistance in clearing worksite to ensure safety of telecommunications workers, the public and the telecommunications network 4.7 Complete work records and notify appropriate personnel that work is completed

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance, but not explicit in the performance criteria.

Skill	Description
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Skill	Description
Reading	Reads and interprets documentation from a variety of sources and consolidates information to determine safety requirements
Writing	Accurately records and completes enterprise safety documents and correspondence using clear language and correct spelling, grammar and terminology
Oral Communication	Uses clear language, concepts, tone and pace appropriate for the audience to communicate safety outcomes
Navigate the world of work	- Understands rights and responsibilities and complies with legal and regulatory requirements - Complies with explicit policies and procedures - Explores and implements implicit expectations of policies and procedures
Interact with others	Uses a limited range of accepted practices for communicating in a work environment
Get the work done	- Plans and implements routine tasks and workload making limited decisions on sequencing, timing and collaboration; and seeks assistance in setting priorities - Responds to predictable routine problems, implementing standard or logical solutions

Unit Mapping Information

No equivalent unit. Supersedes and is not equivalent to ICTWHS203 Work safely near power infrastructure.

Links

Companion Volume Implementation Guides are available from VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=a53af4e4-b400-484e-b778-71c9e9d6aff2>

Assessment Requirements for ICTWHS205 Work safely near power infrastructure at a telecommunications workplace

Modification History

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Release 1	This version released with ICT Information and Communications Technology Training Package Version 5.0.

Performance Evidence

The candidate must demonstrate the ability to perform the tasks outlined in the elements, performance criteria, and foundation skills, and to:

- conduct a risk assessment or simulated risk assessment for a telecommunications work site near power infrastructure
- identify the safety and licensing requirements for working at heights and working in confined spaces
- apply safety precautions while working at heights or in confined spaces near power infrastructure
- test power pole infrastructure for electrical safety before working on the infrastructure
- perform tests on the mechanical soundness of a pole in accordance with the asset (pole) owner guidelines.

Note: Evidence must be provided at least once when a specific volume or frequency is not stated.

Knowledge Evidence

The candidate must demonstrate the knowledge required to perform the tasks outlined in the elements, performance criteria, and foundation skills, which includes knowledge about:

- consequences of short circuits including:
 - arc flash
 - basic power industry protection schemes like reclosers
 - drop out fuses and their limitations for current limiting
- effects of current including:
 - physiological effects and protection for physiological effects
 - basic principle by which electrical current can result in the production of heat, light and electromagnetic field
 - typical effects of current

- definitions of terminologies including:
 - safe work zone
 - risk assessment
 - safe approach distances zones
 - safe working distances
 - work permit
 - access authorisation permits
 - technical standards
 - isolation procedures
 - compliance requirements
- legislation, regulations, codes, standards, guidelines, enterprise requirements, certification and licensing applicable to above performance evidence and own telecommunications role when working safely up to the defined 'safe work zone' near energised electrical apparatus (including electrical powerlines), in particular:
 - electrical safety and technical knowledge relating to operating plant or vehicle near power lines including 'step and touch potential' and earth potential rise
 - safe approach distances including safe work zones that may apply for the intended work
 - for work near live electrical infrastructure – including AS/NZS 3000:2018 Electrical installations known as the Australian/New Zealand Wiring Rules
 - main components of work health and safety (WHS) that affect the work function
 - workplace environmental and WHS procedures including:
 - designation of personnel responsible for WHS
 - requirement for employee participation in WHS management
 - standard meanings of WHS symbols found on signs and labels in the workplace
 - raising WHS issues
 - recognising and reporting on hazards
 - responding to accidents, fires and emergencies
 - work operations to control risks
 - common road and pedestrian safety control measures appropriate to the worksite
- separation and segregation between power and telecommunications cables and fittings
- ground clearances, in-span clearances and attachment point clearances
- test procedure for timber, steel, concrete and composite poles
- techniques and precautions for undertaking different work functions and working safely up to the defined 'safe work zone' near energised electrical apparatus (including electrical powerlines) applicable to above performance evidence and own telecommunications role (work functions that may be performed include, vegetation control, rigging, dogging and/or any other activity that requires working safely near live electrical apparatus by a telecommunications worker)
- limitations of installing telecommunications infrastructure on power assets, including installations near transformers and power substations
- environmental control processes:

- disposal and handling of hazardous and dangerous substances
- noise pollution
- waste disposal
- electricity infrastructure assets, related voltages and requirements for working safely near live electrical apparatus as a telecommunications worker
- how step or touch potential manifests itself
- earth potential rise and how it manifests itself
- weather conditions suitable for working near live electrical apparatus as a telecommunications worker
- safe work zone for safe access near live electrical infrastructure for workers and operational plant
- established enterprise procedures relating to working safely near power infrastructure at a telecommunications workplace, including incident management procedures
- low and high aerial voltage systems.

Assessment Conditions

This unit of competency falls into the definition of high risk work and should be delivered and assessed in accordance with the national standard.

Skills must be assessed in a workplace or simulated environment where conditions are typical of those in a telecommunications work environment or workplace.

Access is required to:

- telecommunications site/s near power infrastructure
- relevant WHS legislation, regulations and codes of practice
- enterprise WHS policies and procedures
- personal protective equipment (PPE).

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards. Refer also to the *Requirements for assessors* of high risk units in the ICT Information and Communications Technology Training Package Companion Volume Implementation Guide.

Links

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