



Australian Government

Department of Education, Employment and Workplace Relations

ICTTCR2190A Use safe rigging practices to climb and perform rescues on telecommunications network structures

Release: 1

ICTTCR2190A Use safe rigging practices to climb and perform rescues on telecommunications network structures

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	<p>This unit describes the performance outcomes, skills and knowledge required to use rigging to assess risk, climb and perform rescue on telecommunications network structures.</p> <p>This unit applies to standard telecommunications structures.</p> <p>A licensed rigger is required for the installation of some rigging equipment.</p> <p>The National Standard for Licensing Persons Performing High Risk Work applies to persons performing dogging and rigging work.</p> <p>Completion of the following units is required for certification at either basic, intermediate or advanced levels. CPCCLDG3001A Licence to perform dogging CPCCLRG3001A Licence to perform rigging basic level CPCCLRG3002A Licence to perform rigging intermediate level CPCCLRG4001A Licence to perform rigging advanced level.</p> <p>If operation of an elevated work platform (EWP) is required, a licence may be required.</p> <p>Users should confirm requirements with the relevant federal, state or territory authority.</p>
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Application of the Unit

Application of the unit	<p>Technical staff who use rigging on telecommunications radio structures apply the skills and knowledge in this unit. They may make use of rigging plant and equipment, fall arrest, fall guarding and fall constraint and work in teams.</p>
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Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare to use safe rigging practices	1.1. Notify appropriate personnel and take necessary precautions to minimise, control or eliminate hazards that may exist during work activities 1.2. Prepare for given work according to minimum approach distances for hazards on telecommunications network structures as prescribed in <i>relevant legislation, codes, regulations and standards</i>
2. Assess the status and condition of telecommunications network structures and identify climbing route	2.1. Inspect and assess the <i>status and condition of telecommunications structures</i> according to industry practice 2.2. Plot optimum climbing route to avoid hazards and the most effective use of selected equipment according to manufacturer's instructions and industry practice
3. Prepare climbing equipment	3.1. Select <i>climbing equipment</i> in keeping with the structures to be climbed according to industry practice 3.2. Inspect climbing equipment for damage according to <i>specifications</i> and industry practice
4. Climb telecommunications network structures	4.1. Use safe climbing practices when ascending telecommunications network structures according to the occupational health and safety (OHS) Act 4.2. Maintain permanent attachment when more than three metres from the ground adhering to <i>safety requirements when working at heights</i> 4.3. Maintain three points of contact at all times according to industry practice while climbing telecommunications network structures 4.4. Manage ropes to avoid entanglement or fouling on the structure 4.5. Maintain safe working and minimum approach distances from hazards on <i>telecommunications network structures</i> at all times according to standards and regulations
5. Use climbing and working fall arrest systems	5.1. Perform transfers to and from the climbing system and the working system using fall prevention practices according to industry practice 5.2. Use the working fall arrest system according to specifications
6. Perform rescues	6.1. <i>Perform rescues</i> according to situation, industry practice and local instruction

ELEMENT	PERFORMANCE CRITERIA
	6.2. Obtain medical treatment if required 6.3. Report accidents or incidents according to company procedures and local instructions

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- analytical skills to accurately assess risk on telecommunications network structures
- literacy skills to interpret technical documentation, plans and specifications
- communication skills to liaise with other personnel, including the use of radio devices
- numeracy skills to:
 - take measurements and interpret results
 - evaluate different types of technical data
- planning and organisational skills to plan, prioritise and monitor own work and OHS responsibilities
- problem solving and contingency management skills to adapt rigging activities and requirements to particular sites and conditions
- safety awareness skills to:
 - apply precautions and required action to minimise, control or eliminate hazards that may exist during work activities
 - select and use required personal protective equipment for rigging projects to suit different applications and for work at height conforming to industry and OHS standards
 - work systematically with required attention to detail without injury to self or others, or damage to goods or equipment
- task management skills to work systematically with required attention to detail and adherence to all safety requirements
- technical skills to:
 - select and use appropriate equipment and practices to suit different applications
 - assess the status and condition of telecommunications network structures to be climbed
 - identify climbing route according to industry practice

Required knowledge

- falls:

REQUIRED SKILLS AND KNOWLEDGE

- fall factors according to the Guidelines for the Prevention of Falls
- fall prevention
- fall types according to Australian standards and regulations
- features and operating requirements of rigging equipment
- optical fibre cabling and equipment safety practices
- personal protective equipment
- radio frequency electromagnetic radiation (EMR):
 - associated risks
 - methods of detecting
 - need to verify and maintain the EMR hazard management plan against an on-site situation
 - preparing for work at a telecommunications site with potential EMR hazards
 - reporting EMR hazards safety practices
 - sources and types of radio frequency (RF) EMR
- rescue methods and practices
- safe rigging principles
- suspension trauma:
 - cause
 - effect
 - prevention
 - treatment
- using a safety harness:
 - hazards associated with wearing a safety harness
 - how to check, fit and use a safety harness
 - the types and application of different safety harnesses
- licensing and regulatory issues applying to rigging practices and systems on telecommunications radio structures
- risks present when working on telecommunications radio structures
- specific OHS issues that affect rigging:
 - relevant regulations, and applicable site and company OHS procedures
 - rigging practices and systems for telecommunications radio structures
 - safe climbing practices including maintaining three points of contact while climbing
 - safe working and minimum approach distances for hazards on telecommunications network structures according to standards and regulations
 - safety requirements when working at heights according to the OHS Act

Evidence Guide

EVIDENCE GUIDE	
<p>The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.</p>	
Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>Evidence of the ability to:</p> <ul style="list-style-type: none"> • use safe rigging practices according to OHS requirements, regulations and standards • assess the status and condition of telecommunications structure to be climbed and plot climbing route according to industry practice • select climbing equipment and climb telecommunications network structure • work safely on telecommunications network structures using climbing and working fall arrest systems • perform rescues from telecommunications network structures to industry standards.
Context of, and specific resources for assessment	<p>Assessment must ensure:</p> <ul style="list-style-type: none"> • a mentor or supervisor appropriately experienced and certified in rigging and rescuing for telecommunications radio structures • a workplace conducting rigging operations with: <ul style="list-style-type: none"> • rigging equipment • safety equipment.
Methods of assessment	<p>A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:</p> <ul style="list-style-type: none"> • direct observation of the candidate climbing and performing a rescue on a telecommunications network structure • oral or written questioning of the candidate to assess OHS requirements associated with rigging.
Guidance information for assessment	<p>Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended, for example:</p> <ul style="list-style-type: none"> • ICTTCR2188A Use rigging practices and systems on telecommunications network structures

EVIDENCE GUIDE

	<ul style="list-style-type: none"> • ICTTCR2189A Use operational safety in a telecommunications rigging environment. <p>Aboriginal people and other people from a non-English speaking background may have second language issues.</p> <p>Access must be provided to appropriate learning and assessment support when required.</p> <p>Assessment processes and techniques must be culturally appropriate, and appropriate to the oral communication skill level, and language and literacy capacity of the candidate and the work being performed.</p> <p>In all cases where practical assessment is used it will be combined with targeted questioning to assess required knowledge. Questioning techniques should not require language, literacy and numeracy skills beyond those required in this unit of competency.</p> <p>Where applicable, physical resources should include equipment modified for people with special needs.</p>
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Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. **Italicised** wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Relevant legislation, codes, regulations and standards may include:

- Australian Communications Industry Forum (ACIF) standards and codes
- Australian Communications and Media Authority (ACMA) technical standards
- appropriate licences that may be required:
 - crane

RANGE STATEMENT

- dogging
- rigging
- scaffolding
- winch
- Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) EMR standard
- AS 1353.1:1997
- AS 1353.2:1997
- AS 1657:1992
- AS 2089:2008
- AS 2319:2001
- AS 2626: replaced by AS/NZS 1891.4:2000
- AS 3775.1:2004
- AS 3775.2:2004
- AS 3777:2008
- AS 4497.2:1997
- AS/NZS 1891.1:2007
- AS/NZS 1891.4:2000
- AS/NZS 4801:2001
- AS/NZS ISO 14001:2004
- Australian building codes and regulations
- Australian standards
- CE, American National Standards Institute (ANSI) equipment standards
- enterprise standards
- environmental protection
- equipment certifications:
 - NFPA 1983 (2006 edition)
 - NFPA/UL G-rated (General Use)
- equipment standards:
 - intrinsically safe lightning protection
 - site engineering standard
- fire regulations
- heritage legislation
- international standards
- local government
- OHS
- Radcoms Act
- related publications
- Telecoms Act

RANGE STATEMENT	
	<ul style="list-style-type: none">• WI's, CI's, Business Operating Procedures (BOP), Radiocommunications Assignment and Licensing Instruction (RALI), assignment guidelines.

RANGE STATEMENT	
<i>Status and condition of telecommunications structures</i> may relate to:	<ul style="list-style-type: none"> • hazardous areas • potential optical fibre and laser equipment hazards • safety issues in roof work • structural integrity.
<i>Climbing equipment</i> may include:	<ul style="list-style-type: none"> • anchor points • anchors • climbing and working fall arrest systems • connectors • descenders • jointing splices • karabiners • lines • rigging screws • ascenders • shackles • slings • snatch blocks • strops • synthetic ropes • turn buckles • wire rope grips • wire ropes.
<i>Specifications</i> may include:	<ul style="list-style-type: none"> • bolts: <ul style="list-style-type: none"> • mild • high tensile • stainless • high strength • torque • installation of equipment • load cells • range tensioning • temporary anchors • terminations: <ul style="list-style-type: none"> • bulldog grips • preformed dead ends.
<i>Safety requirements when working at heights</i> may include:	<ul style="list-style-type: none"> • personal protective equipment: <ul style="list-style-type: none"> • hazards associated with wearing a safety harness

RANGE STATEMENT

- to suit different applications
- risk assessment and methods:
 - assess the status and condition of telecommunications network structures to be climbed
 - climbing equipment for network structure
 - falls and fall prevention.
 - identify climbing route according to industry practice
 - industrial climbing on telecommunications network structures for maintenance
 - performing rescues
 - rescue planning
 - safe climbing practices
 - safe working methods
- safe working practices:
 - lifting methods
 - load calculation
 - site hazard identification and control measures
- use of fall arrest systems:
 - double lanyards
 - pole straps
 - static lines
- use of safety equipment:
 - aerial safety belts and lines
 - anchor straps
 - anchors
 - ear muffs
 - equipment guards
 - fall arrest devices and systems
 - fall constraint systems
 - fall guarding systems
 - flashing lights
 - gloves
 - guards
 - helmet
 - lanyards
 - pulleys

RANGE STATEMENT	
	<ul style="list-style-type: none"> • rescue harness • rigging plates • rope clamps • safety cages • safety glasses • safety harnesses: <ul style="list-style-type: none"> • basic • full body fall arrest • sit harness • static lines • warning signs and tapes • tools: <ul style="list-style-type: none"> • crane • hand • load and tension gauge • mechanical • power.
<p><i>Telecommunications network structures</i> may include:</p>	<ul style="list-style-type: none"> • antennae above ground level • buildings • concrete poles • guyed masts • lattice towers • monopoles • masts • rooftops • steel poles • support for RF emitting feeders • wooden poles.
<p><i>Perform rescues</i> may include:</p>	<ul style="list-style-type: none"> • abseil rescue • first aid • internationally recognised communication signals and protocols: <ul style="list-style-type: none"> • hand signals • radio communications • personal and team safety • raising and lowering systems • stabilising a casualty • treating suspension trauma.

Unit Sector(s)

Unit sector	Telecommunications
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Co-requisite units

Co-requisite units	

Competency field

Competency field	Telecommunications Rigging Installation
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