

<b>ICTOHS2080A</b>	<b>Provide telecommunications services safely on roofs</b>
<b>Unit descriptor</b>	<p>This unit describes the performance outcomes, skills and knowledge to perform safe work practices when installing or repairing telecommunications equipment on roof structures.</p> <p>This unit of competency specifies the outcomes required to safely install or repair telecommunications equipment on roof structures. It includes planning, risk assessment and implementing control measures whilst undertaking telecommunications installation or repairs.</p> <p>No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement but users should confirm requirements with the relevant federal, state or territory authority.</p>
<b>Employability skills</b>	This unit contains employability skills.
<b>Prerequisite units</b>	
<b>Co-requisite units</b>	
<b>Application of the unit</b>	<p>Technicians and installers apply the skills and knowledge in this unit.</p> <p>This unit applies to domestic and commercial roof work applications, which may be new or existing structures requiring installation or maintenance of telecommunications equipment. Typical equipment includes antenna or satellite dish, coaxial cable, waveguide and hybrid fibre coaxial (HFC) hardware.</p>
<b>Competency field</b>	Occupational health and safety
<b>Unit sector</b>	Telecommunications

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b>
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.
1. Follow workplace procedures for hazard identification and risk control	<ol style="list-style-type: none"> <li>1.1. Notify customer and arrange access to the site</li> <li>1.2. Recognise and report <b>hazards</b> in the work area to <b>designated personnel</b> according to workplace procedures</li> <li>1.3. Follow occupational health and safety (<b>OHS</b>) <b>legislative requirements, workplace procedures</b> and work instructions to <b>control risks</b></li> <li>1.4. Comply with <b>safe work practices</b> for working safely on roofs and adhere to workplace <b>environmental requirements</b> throughout the work</li> <li>1.5. Implement <b>duty of care requirements</b> to provide a safe working environment</li> <li>1.6. Complete <b>job safety analysis (JSA)</b> sheets according to work requirements, including <b>hazard identification</b> and <b>risk assessment</b></li> <li>1.7. Use and maintain <b>personal protective equipment</b> and <b>personal safety equipment</b> according to work</li> </ol>

ELEMENT	PERFORMANCE CRITERIA
	requirements and apply fall protection and personal safety requirements according to regulatory requirements
2. Prepare for work on rooftop	2.1. Assess scope of work according to workplace procedures, <b>relevant legislation, codes, regulations and standards</b> and relevant <b>job information details</b> 2.2. Inspect site to determine layout and equipment requirements according to work order 2.3. Select materials, <b>tools and equipment</b> , including personal protective equipment and check for serviceability 2.4. Inspect and install fall protection and perimeter protection equipment, ensuring adequacy for work and conformance to regulatory requirements 2.5. Install <b>roof safety system</b> according to workplace and regulatory requirements 2.6. Select and install appropriate signage and barricades
3. Perform telecommunications work on rooftop	3.1. Inspect access from ground to work area ensuring it is safe and according to regulatory requirements 3.2. Estimate the total weight of material to be raised to rooftop to carry out the work 3.3. Determine and use the safest <b>lifting method</b> to bring materials and equipment to rooftop according to regulatory requirements. 3.4. Secure test equipment, hardware and tools safely on rooftop and distribute weight to eliminate risk of damage to roof cover 3.5. Inspect safety system periodically for compliance with regulations according to workplace procedures and <b>report faults</b> 3.6. Monitor risk control measures to ensure that they are effective and appropriate to the task and work environment 3.7. Reassess risk control measures as required, according to changed work practices or site conditions and make alterations within scope of authority
4. Complete activities and documentations	4.1. Dismantle safety system according to prescribed sequence and remove from worksite 4.2. Clear work area and dispose of materials or recycle according to state and territory legislation and workplace procedures 4.3. Clean, check and maintain tools and equipment according to manufacturer's recommendations and workplace procedures 4.4. Complete <b>documentation</b> according to workplace requirements and notify customer for sign off

### REQUIRED SKILLS AND KNOWLEDGE

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

#### Required skills

- communication skills to:
  - access information
  - determine requirements
  - enable clear and direct communication to identify and confirm requirements and share information
  - follow instructions

<b>REQUIRED SKILLS AND KNOWLEDGE</b>	
<ul style="list-style-type: none"> <li>◦ report faults</li> <li>◦ use language and concepts appropriate to cultural differences</li> <li>◦ use and interpret non-verbal communication, such as hand signals</li> <li>• literacy skills to:                             <ul style="list-style-type: none"> <li>◦ complete workplace documentation</li> <li>◦ document scope of work and work practices</li> <li>◦ read and interpret:                                     <ul style="list-style-type: none"> <li>- documentation from a variety of sources</li> <li>- drawings and specifications</li> </ul> </li> </ul> </li> <li>• numeracy skills to estimate and calculate weight of materials</li> <li>• organisational skills, including the ability to plan and set out work</li> <li>• providing necessary safety measures, including the installation of a roof safety system</li> <li>• safety awareness skills to :                             <ul style="list-style-type: none"> <li>◦ conduct a safety assessment of a roof worksite</li> <li>◦ identify and accurately reporting to appropriate personnel any faults in tools, equipment or materials</li> </ul> </li> <li>• technical skills to:                             <ul style="list-style-type: none"> <li>◦ access and understand site-specific instructions in a variety of media</li> <li>◦ use communications equipment</li> </ul> </li> </ul>	
<b>Required knowledge</b>	
<ul style="list-style-type: none"> <li>• JSA and safe work method statements</li> <li>• nature of work undertaken on roofs</li> <li>• processes of providing for safe working practices</li> <li>• relevant statutory and regulatory authority requirements related to working safely on roofs</li> <li>• roof safety equipment and systems and considerations to facilitate working safely on roofs</li> <li>• SI system of measurement</li> </ul>	

<b>RANGE STATEMENT</b>	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold 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.</p>	
<p><b>Hazards</b> may include:</p>	<ul style="list-style-type: none"> <li>• contact with electrical wiring</li> <li>• environmental hazards:                             <ul style="list-style-type: none"> <li>◦ air pollution</li> <li>◦ dangerous gases</li> <li>◦ heavy or noxious metals pollution</li> <li>◦ noise</li> <li>◦ petrochemical spillage</li> <li>◦ prevailing weather condition</li> <li>◦ release of hydrochlorofluorocarbons (HCFC)</li> </ul> </li> <li>• fibre offcut damage to eyes and skin</li> <li>• flammable cleaning chemicals fluids and solvents</li> <li>• health hazards:                             <ul style="list-style-type: none"> <li>◦ dangerous or harmful substances</li> <li>◦ handling of optic fibres and lasers</li> <li>◦ risk of infection</li> <li>◦ risk of sustained injury from repetitive tasks</li> </ul> </li> <li>• laser damage to eyes</li> <li>• radio frequency (RF) exposure from transmitting antenna in close proximity</li> <li>• roof safety system in poor condition or non existent</li> </ul>

<b>RANGE STATEMENT</b>	
	<ul style="list-style-type: none"> <li>• safety hazards <ul style="list-style-type: none"> <li>◦ biomechanical</li> <li>◦ lifting</li> <li>◦ potentially harmful procedures, such as welding</li> <li>◦ working at heights.</li> </ul> </li> </ul>
<b>Designated personnel</b> includes:	<ul style="list-style-type: none"> <li>• OHS personnel</li> <li>• other persons authorised or nominated by the enterprise or industry to: <ul style="list-style-type: none"> <li>◦ perform specified work</li> <li>◦ approve specified work</li> <li>◦ inspect specified work</li> <li>◦ direct specified work</li> </ul> </li> <li>• project manager</li> <li>• site manager</li> <li>• supervisors</li> <li>• team leaders.</li> </ul>
<b>OHS legislative requirements</b> may relate to:	<ul style="list-style-type: none"> <li>• Australian standards</li> <li>• duty of care</li> <li>• health and safety representatives, committees and supervisors</li> <li>• industry OHS standards and guidelines</li> <li>• licences, tickets or certificates of competency</li> <li>• national safety standards</li> <li>• OHS and Welfare Acts and regulations</li> <li>• safety codes of practice.</li> </ul>
<b>Workplace procedures</b> may include:	<ul style="list-style-type: none"> <li>• assessing risks</li> <li>• controlling hazards</li> <li>• emergency responses to: <ul style="list-style-type: none"> <li>◦ accidents</li> <li>◦ fires</li> <li>◦ other emergencies</li> </ul> </li> <li>• identifying hazards</li> <li>• reporting OHS issues</li> <li>• resolving OHS issues</li> <li>• using personal protective equipment</li> <li>• using personal safety equipment.</li> </ul>
<b>Control risks</b> may include:	<ul style="list-style-type: none"> <li>• three steps in risk management process: <ul style="list-style-type: none"> <li>◦ assess risk</li> <li>◦ identify hazard</li> <li>◦ implement control methods.</li> </ul> </li> </ul>
<b>Safe work practices</b> may relate to:	<ul style="list-style-type: none"> <li>• avoiding contact with chemicals, breathing in fumes and vapours, and digesting such materials</li> <li>• being aware of what to do and how to treat any potential accident</li> <li>• drugs and alcohol at work</li> <li>• general requirements for: <ul style="list-style-type: none"> <li>◦ safe use of plant and equipment</li> <li>◦ use of personal protective equipment and clothing and personal safety equipment</li> </ul> </li> <li>• housekeeping to ensure a clean, tidy and safe work area</li> <li>• manufacturer's warnings or instruction labels in</li> </ul>

<b>RANGE STATEMENT</b>	
	<p>relation to the laser product are not damaged or obscured during installation</p> <ul style="list-style-type: none"> <li>• no fibre particles, hazardous solvents or chemicals are left on site at the completion of the work</li> <li>• observing warning labels used in conjunction with laser and optical fibre systems and RF system</li> <li>• preventing bullying and harassment</li> <li>• relevant Australian standards of required health and safety precautions</li> <li>• smoking in designated areas</li> <li>• specific organisational safety requirements</li> <li>• storing and removing debris</li> <li>• using appropriate warning labels on climbing equipment and rooftop</li> <li>• using fire fighting equipment</li> <li>• using first aid equipment</li> <li>• using safe operating procedures, including recognising and preventing hazards associated with: <ul style="list-style-type: none"> <li>◦ hazardous materials and substances</li> <li>◦ service lines</li> <li>◦ surrounding structures and facilities</li> <li>◦ trip hazards</li> <li>◦ use of tools and equipment</li> <li>◦ worksite visitors and the public</li> <li>◦ working at heights</li> <li>◦ working in proximity to others.</li> </ul> </li> </ul>
<b>Environmental requirements</b> may include:	<ul style="list-style-type: none"> <li>• clean-up protection and management</li> <li>• dust</li> <li>• noise</li> <li>• ozone protection</li> <li>• waste management.</li> </ul>
<b>Duty of care requirements</b> relate to:	<ul style="list-style-type: none"> <li>• legal responsibility to do everything reasonably practicable to protect others from harm</li> <li>• own responsibilities to comply with safe work practices: <ul style="list-style-type: none"> <li>◦ activities that require licences</li> <li>◦ certificates of competency</li> <li>◦ tickets</li> </ul> </li> <li>• relevant state OHS requirements: <ul style="list-style-type: none"> <li>◦ construction supervisors</li> <li>◦ construction workers</li> <li>◦ designers</li> <li>◦ employers and self-employed persons</li> <li>◦ inspectors</li> <li>◦ manufacturers and suppliers</li> <li>◦ persons in control of the work site</li> <li>◦ subcontractors.</li> </ul> </li> </ul>
<b>Job safety analysis (JSA)</b> may include:	<ul style="list-style-type: none"> <li>• each new workplace or worksite situation</li> <li>• health, safety and environmental hazards</li> <li>• primary application of assessment</li> <li>• sheets to record the steps in the risk management</li> </ul>

<b>RANGE STATEMENT</b>	
	process: <ul style="list-style-type: none"> <li>◦ assessment</li> <li>◦ control</li> <li>◦ identification.</li> </ul>
<b>Hazard identification</b> may include:	<ul style="list-style-type: none"> <li>• checking equipment and work area:               <ul style="list-style-type: none"> <li>◦ before work commences</li> <li>◦ during work</li> </ul> </li> <li>• housekeeping</li> <li>• reviewing accident or incident records</li> <li>• workplace inspections.</li> </ul>
<b>Risk assessment</b> may include:	<ul style="list-style-type: none"> <li>• a scale:               <ul style="list-style-type: none"> <li>◦ high</li> <li>◦ low</li> <li>◦ medium</li> </ul> </li> <li>• awareness of likelihood and consequence factors</li> <li>• JSA.</li> </ul>
<b>Personal protective equipment</b> used to control a hazard may include:	<ul style="list-style-type: none"> <li>• breathing apparatus:               <ul style="list-style-type: none"> <li>◦ dust masks</li> <li>◦ respirators</li> </ul> </li> <li>• clothing:               <ul style="list-style-type: none"> <li>◦ boots</li> <li>◦ gloves</li> <li>◦ overalls</li> <li>◦ protective jackets or pants for preparing, cutting or jointing optical fibres</li> </ul> </li> <li>• face and head protection:               <ul style="list-style-type: none"> <li>◦ face masks</li> <li>◦ goggles</li> <li>◦ helmets</li> </ul> </li> <li>• radiation detectors.</li> </ul>
<b>Personal safety equipment</b> includes:	<ul style="list-style-type: none"> <li>• aerial safety belts and lines</li> <li>• anchor straps</li> <li>• karabiners</li> <li>• lanyard</li> <li>• rope clamps</li> <li>• safety harness.</li> </ul>
<b>Relevant legislation, codes, regulations and standards</b> shall include:	<ul style="list-style-type: none"> <li>• Australian Communications Industry Forum (ACIF) standards and codes</li> <li>• AS Communications Cabling Manual (CCM) Volume 1</li> <li>• AS/NZS 3000:2007</li> <li>• AS/NZS 3080:2003</li> <li>• AS/NZS 3084:2003</li> <li>• AS/NZS 3085.1:2004</li> <li>• AS/NZS IEC 61935.1:2006</li> <li>• AS/NZS IEC 61935.2:2006</li> <li>• AS/NZS ISO/IEC 14763.3:2007</li> <li>• AS/NZS ISO/IEC 15018:2005</li> <li>• AS/NZS ISO/IEC 24702:2007</li> <li>• Australian building codes and regulations</li> <li>• cabling security codes and regulations</li> <li>• compliance with appropriate Australian</li> </ul>

<b>RANGE STATEMENT</b>	
	<p>Communications and Media Authority (ACMA) technical standard requirements for aerial cables</p> <ul style="list-style-type: none"> <li>• Environmental Protection Acts</li> <li>• fire regulations</li> <li>• Institute of Electrical and Electronics Engineers (IEEE)</li> <li>• noise abatement and heritage legislation</li> <li>• OHS</li> <li>• technical standards AS/ACIF S008:2006 and AS/ACIF S009:2006.</li> </ul>
<b>Job information details</b> may include:	<ul style="list-style-type: none"> <li>• diagrams and sketches</li> <li>• instructions issued by customer</li> <li>• regulatory and legislative requirements</li> <li>• safe work procedures relating to working on roofs</li> <li>• signage</li> <li>• work order</li> <li>• work schedules, plans and specifications.</li> </ul>
<b>Tools and equipment</b> may include:	<ul style="list-style-type: none"> <li>• communications equipment: <ul style="list-style-type: none"> <li>◦ mobile phones</li> <li>◦ 2 way radios</li> </ul> </li> <li>• fall protection</li> <li>• ladders</li> <li>• lifting and load shifting equipment, including: <ul style="list-style-type: none"> <li>◦ chain blocks</li> <li>◦ elevated work platforms</li> <li>◦ hoists and jacks</li> <li>◦ scaffolds</li> </ul> </li> <li>• perimeter protection</li> <li>• signage and barricades.</li> </ul>
<b>Roof safety system</b> may include:	<ul style="list-style-type: none"> <li>• footwalks</li> <li>• handrails</li> <li>• harness fixing points</li> <li>• kickboards</li> <li>• safety harness</li> <li>• scaffolds.</li> </ul>
<b>Lifting method</b> may include:	<ul style="list-style-type: none"> <li>• arranging for pre-delivery of goods</li> <li>• using block and tackle</li> <li>• using construction elevator</li> <li>• using elevated work platforms.</li> </ul>
<b>Report faults</b> may be:	<ul style="list-style-type: none"> <li>• according to company's workplace procedures</li> <li>• written or verbal notification.</li> </ul>
<b>Documentation</b> may include:	<ul style="list-style-type: none"> <li>• completed work order</li> <li>• modifications to procedures</li> <li>• reported faults</li> <li>• work details.</li> </ul>

<b>EVIDENCE GUIDE</b>	
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.	
<b>Overview of assessment</b>	
<b>Critical aspects for assessment and evidence required to demonstrate competency in this unit</b>	<p>Evidence of the ability to:</p> <ul style="list-style-type: none"> <li>• locate, interpret and apply relevant information, standards and specifications for working safely on roofs</li> <li>• apply safety requirements throughout the work sequence, including the use of personal protective equipment</li> <li>• provide for erection, maintenance and dismantling of the fall and perimeter protection requirements for the site. As a minimum given the plans and specifications for the roof working area of a corner, extending at least 4 metres in either direction and greater than 1.8 m high, incorporating harnesses and harness fixing points for safe personal and stores access to the roof, stores and equipment locations</li> <li>• carry out a risk assessment ensuring: <ul style="list-style-type: none"> <li>◦ correct identification of risks and safety requirements</li> <li>◦ correct selection and use of appropriate processes, tools and equipment</li> <li>◦ completing all work to specification</li> <li>◦ compliance with regulations, standards and organisational quality procedures and processes</li> <li>◦ communicating and working effectively and safely with others.</li> </ul> </li> </ul>
<b>Context of and specific resources for assessment</b>	<p>Assessment must ensure:</p> <ul style="list-style-type: none"> <li>• site on roof where operations may be conducted</li> <li>• induction procedure and requirements</li> <li>• relevant specifications and work instructions</li> <li>• tools and equipment appropriate to applying safe work practices</li> <li>• support materials appropriate to activity</li> <li>• workplace instructions relating to safe working practices and addressing hazards and emergencies</li> <li>• relevant regulations, standards specifications and manuals, including industry related systems information.</li> </ul>
<b>Method of assessment</b>	<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"> <li>• direct observation of the candidate preparing and carrying out telecommunications work on roofs</li> <li>• oral or written questioning of the candidate to assess OHS requirements and work practices associated with working on roofs</li> <li>• review of JSAs and documentation prepared by the candidate.</li> </ul>
<b>Guidance information for assessment</b>	Holistic assessment with other units relevant to the industry sector, workplace and job role is

<b>EVIDENCE GUIDE</b>	
	<p>recommended.</p> <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>

ICTOHS2153A	Work safely near power infrastructure
Unit descriptor	<p>This unit describes the performance outcomes, skills and knowledge to conduct telecommunications operations near substantial safety hazards. It includes safe hazard management at heights near electrical distribution infrastructure, radiation devices or other services in confined spaces.</p> <p>If state or territory law require a licence to operate an elevated work platform (EWP) TLILIC508A Licence to operate a boom-type elevating work platform (boom length 11 metres or more) should be completed concurrently.</p> <p>Licensing, legislative, regulatory and certification requirements apply to working at heights. If an EWP is required, verify state or territory law requirements for a licence to operate an EWP.</p> <p>If working at heights, achievement of the unit CPCPCM2015A Work safely on roofs from the CPC08 Construction and Plumbing Services integrated framework training package fulfils this requirement</p> <p>This unit addresses confined spaces but does not confer endorsement for work in confined spaces. This requires extensive specialised training which is beyond the scope of this unit. Users should confirm requirements with the relevant federal, state or territory authority.</p>
Employability skills	This unit contains employability skills.
Prerequisite units	
Co-requisite units	
Application of the unit	Field officers who work with cables on elevated work platforms, in confined spaces and on roofs and other structures apply the skills and knowledge in this unit.
Competency field	Occupational health and safety
Unit sector	Telecommunications

ELEMENT	PERFORMANCE CRITERIA
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.
1. Conduct a risk assessment	<ol style="list-style-type: none"> <li>1.1. Confirm work instructions with <b><i>appropriate personnel</i></b> and seek clarification if required</li> <li>1.2. Select occupational health and safety (<b><i>OHS</i></b>) <b><i>legislation, policy and procedures and technical standards</i></b> relevant to the work and work site</li> <li>1.3. Assess the <b><i>risks from electrical, radiation, gas and other services</i></b> in or adjacent to the worksite</li> <li>1.4. Assess the safety of the worksite, other services and <b><i>support structures</i></b> using appropriate <b><i>monitoring equipment</i></b>.</li> </ol>

ELEMENT	PERFORMANCE CRITERIA
	1.5. Complete a <b>job safety analysis (JSA)</b> or similar risk assessment record listing potential <b>safety hazards</b> associated with site and work requirements and report safety hazards to relevant personnel 1.6. Obtain and confirm permits from <b>relevant authorities</b> within scope of personal authority 1.7. Assess potential <b>emergency situations</b> relevant to the site 1.8. Note <b>earthing arrangements</b> for telecommunications infrastructure and any other services that impinge on the worksite
2. Develop hazard management plan	2.1. Propose strategies to <b>manage potential safety hazards</b> 2.2. Communicate hazard management strategies and confirm with co-workers 2.3. Establish and confirm safety procedures to ensure management of emergency situations 2.4. Obtain <b>safety equipment</b> and <b>personal protective equipment</b> 2.5. Delineate <b>safe work zones and limits of approach</b> to other services 2.6. Arrange <b>road safety and traffic control measures</b> 2.7. Implement safe strategies for working at heights and in <b>confined spaces</b>
3. Work safely	3.1. Use safety equipment and clothing effectively 3.2. Use <b>ladders, climbing or lifting equipment</b> to work safely at heights 3.3. Operate hand and power tools safely at heights 3.4. Work within identified safety zones and approach limits 3.5. Comply with enterprise and industry earthing practices 3.6. Monitor and manage risks throughout work procedures 3.7. Apply emergency procedures in the event of an incident 3.8. Reinststate the worksite to ensure the safety of telecommunications workers, the public and the telecommunications network

### REQUIRED SKILLS AND KNOWLEDGE

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

#### Required skills

- communication skills to listen and liaise with clients on technical and operational matters and raise OHS matters
- literacy skills to interpret technical documentation and standards and demonstrate knowledge by incorporating technical language into identifying and reporting on safety hazards and emergency situations
- planning skills in establishing measures in road safety and strategies for working at heights
- problem solving skills to apply methodology in minimising risks
- research skills to identify OHS legislation, policy and procedures relevant to the worksite 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 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

<b>REQUIRED SKILLS AND KNOWLEDGE</b>	
<ul style="list-style-type: none"> <li>technical skills to distinguish between insulated and bare conductors, low voltage (LV) and high voltage (HV) cables and ways of ascertaining the voltages present</li> </ul>	
<b>Required knowledge</b>	
<ul style="list-style-type: none"> <li>appropriate electrical safety and technical knowledge relating to the type of work, operating plant or vehicle near power lines (safe system of work according to the relevant electrical regulations and Acts)</li> <li>environmental control processes: <ul style="list-style-type: none"> <li>disposal and handling of hazardous and dangerous substances</li> <li>noise pollution</li> <li>waste disposal</li> </ul> </li> <li>rights and responsibilities of the workplace parties under environmental and OHS Acts, regulations and codes of practice</li> <li>sound knowledge of OHS including legislation and standards</li> <li>ways in which OHS is managed in the workplace, and activities required under OHS legislation, including: <ul style="list-style-type: none"> <li>hazard identification</li> <li>hazards that exist in the workplace</li> <li>OHS instruction</li> <li>preferred order of ways to control risks (known as the hierarchy of control)</li> <li>risk assessment and control</li> <li>sound knowledge of operating safely at heights</li> <li>training and provision of OHS information</li> </ul> </li> <li>workplace environmental and OHS procedures relevant to the work being undertaken, including procedures for: <ul style="list-style-type: none"> <li>designated personnel responsible for OHS</li> <li>employee participation in OHS management</li> <li>meaning of OHS symbols found on signs and labels in the workplace</li> <li>raising OHS issues</li> <li>recognising and reporting on hazards</li> <li>responding to accidents, fires and emergencies</li> <li>work operations to control risks</li> </ul> </li> </ul>	

<b>RANGE STATEMENT</b>	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold 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.</p>	
<p><b><i>Appropriate personnel</i></b> may include:</p>	<ul style="list-style-type: none"> <li>construction manager</li> <li>consultant</li> <li>project manager</li> <li>safety officer</li> <li>site manager</li> <li>site supervisor.</li> </ul>
<p><b><i>OHS legislation, policy and procedures and technical standards</i></b> may include:</p>	<ul style="list-style-type: none"> <li>Australian Communications Industry Forum (ACIF) standards and codes</li> <li>Australian Communications and Media Authority (ACMA) standards TS 14</li> <li>AS Communications Cabling Manual (CCM) Volume 1</li> <li>AS/NZS 3000:2007</li> <li>AS/NZS 3080:2003</li> <li>AS/NZS 3084:2003</li> </ul>

<b>RANGE STATEMENT</b>	
	<ul style="list-style-type: none"> <li>• AS/NZS 3085.1:2004</li> <li>• AS/NZS IEC 61935.1:2006</li> <li>• AS/NZS IEC 61935.2:2006</li> <li>• AS/NZS ISO/IEC 14763.3:2007</li> <li>• AS/NZS ISO/IEC 15018:2005</li> <li>• AS/NZS ISO/IEC 24702:2007</li> <li>• cabling security codes and regulations</li> <li>• Environmental Protection Acts</li> <li>• general duty of care under OHS legislation and common law</li> <li>• International Standards ISO 9000 and 9001</li> <li>• International Telecommunications Union (ITU) recommendations</li> <li>• OHS Acts and relevant codes and standards</li> <li>• provisions relating to OHS issue resolution</li> <li>• provisions relating to roles and responsibilities of health and safety representatives and OHS committees</li> <li>• road and traffic control legislation and codes</li> <li>• regulations and codes of practice relating to hazards present in the workplace or industry</li> <li>• technical standards AS/ACIF S008:2006 and AS/ACIF S009:2006</li> <li>• Telecommunications Act and relevant codes.</li> </ul>
<b>Risks from electrical, radiation, gas and other services</b> may relate to:	<ul style="list-style-type: none"> <li>• cable types</li> <li>• fire alarms</li> <li>• gas pipes</li> <li>• pole construction</li> <li>• radiation emissions</li> <li>• sewerage</li> <li>• voltages</li> <li>• water pipes.</li> </ul>
<b>Support structures</b> may include:	<ul style="list-style-type: none"> <li>• joint use with electrical services, building services or other utilities</li> <li>• support structures construction may include: <ul style="list-style-type: none"> <li>◦ brick</li> <li>◦ concrete</li> <li>◦ steel or a suitable combination</li> <li>◦ wood.</li> </ul> </li> </ul>
<b>Monitoring equipment</b> may include:	<ul style="list-style-type: none"> <li>• electrical current leakages devices</li> <li>• gas leakage detector</li> <li>• pole safety tester</li> <li>• radio frequency (RF) leakage detector.</li> </ul>
<b>Job safety analysis (JSA)</b> includes:	<ul style="list-style-type: none"> <li>• documents for new workplace or worksite situation</li> <li>• health, safety and environmental hazards</li> <li>• primary application of assessment</li> <li>• sheets to record the steps in the risk management process: <ul style="list-style-type: none"> <li>◦ assessment</li> <li>◦ control</li> <li>◦ identification.</li> </ul> </li> </ul>

<b>RANGE STATEMENT</b>	
<b>Safety hazards</b> may include:	<ul style="list-style-type: none"> <li>• electrical current leakage</li> <li>• general site conditions</li> <li>• geography structural faults in support structures</li> <li>• radiation</li> <li>• weather</li> <li>• debris on ground</li> <li>• electrically unsafe equipment</li> <li>• faulty equipment</li> <li>• gas leak</li> <li>• loose wires</li> <li>• slippery surfaces</li> <li>• unsafe work at heights.</li> </ul>
<b>Relevant authorities</b> may include:	<ul style="list-style-type: none"> <li>• cable location services (Dial Before you Dig)</li> <li>• environment protection</li> <li>• local government</li> <li>• private owners.</li> <li>• utility providers: <ul style="list-style-type: none"> <li>◦ electricity</li> <li>◦ gas</li> <li>◦ telecommunications</li> <li>◦ water.</li> </ul> </li> </ul>
<b>Emergency situations</b> may include:	<ul style="list-style-type: none"> <li>• collapse of support structure</li> <li>• damage to infrastructure</li> <li>• injury to personnel.</li> </ul>
<b>Earthing arrangements</b> may include:	<ul style="list-style-type: none"> <li>• ACMA standards</li> <li>• manufacturer's</li> <li>• enterprise</li> <li>• local environmental hazard requirements.</li> </ul>
<b>Manage potential safety hazards</b> may include:	<ul style="list-style-type: none"> <li>• additional safety precautions or equipment</li> <li>• road closures</li> <li>• roof guards</li> <li>• shutdown or relocation of other services</li> <li>• site clearances</li> <li>• specialised operational equipment</li> <li>• temporary outage</li> <li>• warning signs.</li> </ul>
<b>Safety equipment</b> may include:	<ul style="list-style-type: none"> <li>• aerial safety belts and lines</li> <li>• flashing lights</li> <li>• guards</li> <li>• traffic signs</li> <li>• warning signs and tapes</li> <li>• woggles hats.</li> </ul>
<b>Personal protective equipment</b> may include:	<ul style="list-style-type: none"> <li>• asbestos precautions</li> <li>• dust protection</li> <li>• earmuffs</li> <li>• eye protection</li> <li>• gas monitoring equipment</li> <li>• gloves: <ul style="list-style-type: none"> <li>◦ plastic</li> <li>◦ rubber</li> <li>◦ leather</li> </ul> </li> </ul>

<b>RANGE STATEMENT</b>	
	<ul style="list-style-type: none"> <li>• gumboots</li> <li>• hard hats</li> <li>• overalls</li> <li>• personal reflecting jackets</li> <li>• radiation protection clothing</li> <li>• riggers gloves</li> <li>• safety boots</li> <li>• vests.</li> </ul>
<b>Safe work zones and limits of approach</b> may relate to:	<ul style="list-style-type: none"> <li>• area near electricity supply assets and sources of radiation</li> <li>• advice published by: <ul style="list-style-type: none"> <li>◦ ACIF</li> <li>◦ asset owners</li> <li>◦ private companies</li> <li>◦ state and territory authorities</li> </ul> </li> <li>• from one to several metres away from live electrical or radiation emitting infrastructure</li> <li>• gas and water services.</li> </ul>
<b>Road safety and traffic control measures</b> may include:	<ul style="list-style-type: none"> <li>• additional personnel to manage traffic flow</li> <li>• barricades</li> <li>• placement of cones</li> <li>• sign and warning lights.</li> </ul>
<b>Confined spaces</b> includes:	<ul style="list-style-type: none"> <li>• equipment cupboards</li> <li>• pits</li> <li>• power asset space</li> <li>• roof spaces</li> <li>• shafts.</li> </ul>
<b>Ladders, climbing or lifting equipment</b> may include:	<ul style="list-style-type: none"> <li>• devices to support construction personnel at heights: <ul style="list-style-type: none"> <li>◦ elevated work platforms</li> <li>◦ fixed ladders</li> <li>◦ non-metallic ladders</li> <li>◦ safety harnesses.</li> </ul> </li> </ul>

<b>EVIDENCE GUIDE</b>	
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.	
<b>Overview of assessment</b>	
<b>Critical aspects for assessment and evidence required to demonstrate competency in this unit</b>	<p>Evidence of the ability to:</p> <ul style="list-style-type: none"> <li>• conduct a risk assessment for a telecommunications site near power infrastructure</li> <li>• develop a hazard management plan</li> <li>• apply safety precautions while working at heights and confined spaces near power infrastructure.</li> </ul>
<b>Context of, and specific resources for assessment</b>	<p>Assessment must ensure:</p> <ul style="list-style-type: none"> <li>• telecommunications site near power infrastructure</li> <li>• relevant OHS Acts, regulations and codes of practice</li> <li>• enterprise OHS policies and procedures</li> <li>• personal protective equipment.</li> </ul>
<b>Method of assessment</b>	<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"> <li>• direct observation of the candidate assessing and implementing safe work practices</li> <li>• oral or written questioning to assess knowledge of OHS concepts, risk assessment practices and development of hazard management plan</li> <li>• evaluation of written documentation on planning and implementation of safety measures and strategies.</li> </ul>
<b>Guidance information for assessment</b>	<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"> <li>• ICTOHS2170A Follow occupational health and safety and environmental policy and procedures</li> <li>• ICTCBL2065A Splice and terminate optical fibre cable for carriers or service providers.</li> </ul> <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>

<b>EVIDENCE GUIDE</b>	
	Where applicable, physical resources should include equipment modified for people with special needs.

<b>ICTOHS2170A</b>	<b>Follow occupational health and safety and environmental policy and procedures</b>
<b>Unit descriptor</b>	<p>This unit describes the performance outcomes, skills and knowledge required to follow safe working practices and environmental policy in the management of telecommunications workplace tasks. It involves awareness of safe handling of active optical fibre cabling, laser sources and equipment.</p> <p>For splicing and terminating of optical fibre, one or both of the following competencies should be completed based on the needs of the work environment:  ICTCBL2065A Splice and terminate optical fibre cable for carriers and service providers  ICTCBL3010A Install and terminate optical fibre cable on customer premises</p> <p>For more comprehensive safe working practices on optical installations particularly on live fibre, the following competency should be completed based on the needs of the work environment:  ICTBWN3100A Work safely with live fibre to test and commission an FTTX installation</p> <p>It requires the ability to demonstrate personal awareness of OHS legislative requirements, and the basic principles of risk management and prevention of injury and illness in the construction industry.</p> <p>Some cabling and installation work may fall within the definition of construction work. If so, people entering the construction site are required to complete the general induction training program specified by the National Code of Practice for Induction Training for Construction Work (Australian Safety Compensation Council, May 2007).</p> <p>Achievement of the unit CPCCOHS1001A Work safely in the construction industry from the CPC08 Construction and Plumbing Services Integrated Framework Training Package fulfils this requirement.</p> <p>Licensing requirements will apply to this unit of competency depending on the regulatory requirements of each jurisdiction. Users should confirm requirements with the relevant federal, state or territory authority.</p>
<b>Employability skills</b>	This unit contains employability skills.
<b>Prerequisite units</b>	
<b>Co-requisite units</b>	

<b>ICTOHS2170A</b>	<b>Follow occupational health and safety and environmental policy and procedures</b>
<b>Application of the unit</b>	<p>Field officers deploying broadband Access Networks using optical technologies apply the skills and knowledge in this unit. They combine technical skills with specific OHS skills to work safely on live systems.</p> <p>This unit applies to telecommunications staff working under supervision in a technical environment. This includes school-based workers, entry-level workers, trainees and apprentices. This unit applies in conjunction with other technical industry or enterprise-specific units.</p>
<b>Competency field</b>	Occupational health and safety
<b>Unit sector</b>	Telecommunications

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b>
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.
1. Identify OHS legislative requirements	1.1. Identify and explain applicable OHS legislative requirements relevant to own work, role and responsibilities 1.2. Identify duty of care requirements 1.3. Identify and explain own responsibilities to comply with safe work practices
2. Identify construction hazards and control measures	2.1. Identify basic <b><i>principles of risk management</i></b> 2.2. Identify and discuss <b><i>common construction hazards</i></b> 2.3. Identify <b><i>measures for controlling hazards and risks</i></b>
3. Follow workplace procedures for hazard identification and risk control	3.1. Recognise and report <b><i>hazards</i></b> in the work area to <b><i>designated personnel</i></b> according to <b><i>workplace procedures</i></b> 3.2. Follow OHS legislative requirements, workplace procedures and work instructions to <b><i>control risks</i></b> 3.3. Comply with safe work practices 3.4. Implement duty of care requirements 3.5. Complete <b><i>job safety analysis (JSA)</i></b> sheets according to work requirements, including <b><i>hazard identification</i></b> and <b><i>risk assessment</i></b> 3.6. Use and maintain <b><i>personal protective equipment</i></b> according to work requirements
4. Recognise safety requirements for work with optical fibre equipment	4.1. Identify safe working practices when handling optical fibre, lasers and optical connectors 4.2. Use safe work practices when handling optical fibre, lasers and optical connectors according to the relevant <b><i>Australian standards</i></b> 4.3. Identify safe working practices when handling and disposing of chemical waste
5. Identify OHS communication and reporting processes	5.1. Identify and discuss <b><i>OHS</i></b> communication processes, information and documentation 5.2. Identify and explain the role of designated OHS personnel 5.3. Identify and explain safety signs and symbols

ELEMENT	PERFORMANCE CRITERIA
	5.4. Identify procedures and relevant authorities for reporting hazards, incidents and injuries
6. Identify OHS incident response procedures	6.1. Identify and explain <b>general procedures for responding to incidents and emergencies</b> 6.2. Identify procedures for accessing first aid 6.3. Identify and demonstrate requirements for the selection and use of relevant personal protective equipment 6.4. Identify and discuss <b>fire safety equipment</b>
7. Contribute to the management of OHS	7.1. Raise OHS issues with designated personnel according to workplace procedures and relevant OHS legislation 7.2. Contribute to <b>participative arrangements</b> for OHS management in the workplace within organisational procedures and scope of responsibilities and competencies
8. Contribute to the management of workplace environmental issues	8.1. Raise environmental issues with designated personnel according to workplace procedures and relevant <b>environmental requirements</b> and legislation 8.2. Contribute to participative arrangements for environmental management in the workplace within organisational procedures and scope of responsibilities and competencies 8.3. Record and report all OHS issues, risks and hazards to designated personnel

## REQUIRED SKILLS AND KNOWLEDGE

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

### Required skills

- communication skills to:
  - ask effective questions and clarify requirements
  - listen to, and liaise with, relevant personnel on technical and operational matters
  - raise and report OHS matters, discuss and relay OHS information to others
  - explain legislative requirements and principles of risk management, safety signs and symbols and common hazards in relation to own work
- literacy skills to interpret technical documentation and standards and demonstrate knowledge by incorporating technical language into written tasks, such as report on recommendation to minimise hazards and injury
- numeracy skills to interpret technical data, such as specifications of laser operations
- problem solving skills to apply methodology in minimising risks
- research skills to access technical information and sources to understand and report on safety requirements
- 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 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
  - select and use appropriate methods for laser handling

### Required knowledge

- 
- applicable Commonwealth, state or territory OHS legislation, regulations, standards, codes of practice and industry standards and guidance notes relevant to own work, role and

## REQUIRED SKILLS AND KNOWLEDGE

- responsibilities
- common construction hazards
- general construction work activities that require licenses, tickets or certificates of competency
- environmental control processes:
  - air quality management
  - disposal and handling of hazardous and dangerous substances
  - noise pollution
  - safe disposal of fibre offcuts
  - stormwater and materials spillage
  - waste disposal
- OHS responsibilities and rights of duty holders/workplace parties under environmental and OHS Acts, regulations and codes of practice, including:
  - persons in control of construction work/projects
  - employers and self-employed persons
  - supervisors
  - employees
  - designers
  - inspectors
  - manufacturers and suppliers
- optical fibres and equipment:
  - hazards relating to handling of optical fibre and laser light source in the workplace
  - injuries:
    - damage to retina from lasers
    - damage to lungs from inhalation of fibre offcuts and particles
    - needle stick injury from fibres and offcuts
  - laser warning signs and labels relating to optical fibre components and equipment
  - safety requirements when handling and working with:
    - devices
    - laser light sources
    - optical fibre connectors
    - optical fibres
    - patchcords
- own responsibilities to comply with safe work practices relating to:
  - housekeeping
  - identification of hazards
  - preventing bullying or harassment
  - smoking
  - use of amenities
  - use of drugs and alcohol
- principles of risk management and assessment for construction work
- ways in which OHS is managed in the workplace, and activities required under OHS legislation, including:
  - hazard identification
  - hazards that exist in the workplace
  - OHS instruction
  - preferred order of ways to control risks (known as the hierarchy of control)
  - risk assessment and controls
  - role of OHS committees and representatives
  - training and provision of OHS information
  - types of common personal protective equipment and fire safety equipment
  - types of OHS information and documentation

**REQUIRED SKILLS AND KNOWLEDGE**

- workplace environmental and OHS procedures relevant to the work being undertaken, including procedures for:
  - designated personnel responsible for OHS
  - employee participation in OHS management
  - general first aid response requirements
  - general workers' compensation and injury management requirements
  - meaning of OHS symbols found on signs and labels in the workplace
  - raising OHS issues
  - recognising and reporting on:
    - accidents
    - dangerous occurrences
    - emergencies
    - hazards
    - incidents
    - injuries
    - near misses
  - responding to:
    - accidents
    - emergencies
    - evacuation procedures
    - fires and
    - hazards
    - incidents
    - injuries
- work operations to control risks

**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. Bold 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.

<p><b><i>OHS legislative requirements</i></b> relate to:</p>	<ul style="list-style-type: none"> <li>• Australian standards</li> <li>• duty of care</li> <li>• health and safety representatives, committees and supervisors</li> <li>• industry OHS standards and guidelines</li> <li>• licences, tickets or certificates of competency</li> <li>• national safety standards</li> <li>• OHS and Welfare Acts and regulations</li> <li>• safety codes of practice</li> <li>• construction industry OHS standards and guidelines</li> <li>• National Code of Practice for Induction Training for Construction Work</li> </ul>
<p><b><i>Duty of care requirements</i></b> relate to:</p>	<ul style="list-style-type: none"> <li>• legal responsibility to do everything reasonably practicable to protect others from harm</li> <li>• own responsibilities to comply with safe work practices:                             <ul style="list-style-type: none"> <li>◦ activities that require licences</li> <li>◦ tickets</li> <li>◦ certificates of competency</li> </ul> </li> <li>• relevant state OHS requirements, including:                             <ul style="list-style-type: none"> <li>◦ construction supervisors</li> </ul> </li> </ul>

<b>RANGE STATEMENT</b>	
	<ul style="list-style-type: none"> <li>◦ construction workers</li> <li>◦ designers</li> <li>◦ employers and self-employed persons</li> <li>◦ inspectors</li> <li>◦ manufacturers and suppliers</li> <li>◦ persons in control of the work site</li> <li>◦ subcontractors.</li> </ul>
<b>Safe work practices</b> relate to:	<ul style="list-style-type: none"> <li>• access to site amenities: <ul style="list-style-type: none"> <li>◦ drinking water</li> <li>◦ toilets</li> </ul> </li> <li>• appropriate warning labels on cabinets and enclosures</li> <li>• avoiding coming into contact with chemicals, breathing in fumes and vapours, and digesting such materials</li> <li>• being aware of what to do and how to treat any potential accident</li> <li>• drugs and alcohol at work</li> <li>• general requirements for: <ul style="list-style-type: none"> <li>◦ safe use of plant and equipment</li> <li>◦ use of personal protective equipment and clothing</li> </ul> </li> <li>• housekeeping to ensure a clean, tidy and safe work area</li> <li>• manufacturer's warnings or instruction labels in relation to the laser product are not damaged or obscured during installation</li> <li>• no fibre particles, hazardous solvents or chemicals left on site at the completion of the work</li> <li>• preventing bullying and harassment</li> <li>• relevant Australian standards of required health and safety precautions</li> <li>• smoking in designated areas</li> <li>• specific organisational safety requirements</li> <li>• storing and removing debris</li> <li>• using a wet cleaning process and making sure all solvent residues are disposed of according to environmental policy</li> <li>• warning labels used in conjunction with laser and optical fibre systems.</li> </ul>
<b>Principles of risk management</b> include:	<ul style="list-style-type: none"> <li>• assessing the risks involved</li> <li>• consulting and reporting ensuring the involvement of relevant workers</li> <li>• controlling the hazard</li> <li>• identifying hazards</li> <li>• reviewing to identify change or improvement.</li> </ul>
<b>Common construction hazards</b> include:	<ul style="list-style-type: none"> <li>• confined spaces</li> <li>• electrical safety</li> <li>• excavations, including trenches</li> <li>• falling objects</li> <li>• hazardous substances and dangerous goods</li> </ul>

<b>RANGE STATEMENT</b>	
	<ul style="list-style-type: none"> <li>• HIV and other infectious diseases</li> <li>• hot and cold working environments</li> <li>• manual handling</li> <li>• noise</li> <li>• plant and equipment</li> <li>• traffic and mobile plant</li> <li>• unplanned collapse</li> <li>• ultraviolet (UV) radiation</li> <li>• working at heights.</li> </ul>
<b>Measures for controlling hazards and risk</b> include:	<ul style="list-style-type: none"> <li>• administrative control</li> <li>• elimination</li> <li>• engineering control</li> <li>• isolation</li> <li>• personal protective equipment</li> <li>• substitution.</li> </ul>
<b>Hazards</b> may include:	<ul style="list-style-type: none"> <li>• activating equipment without notifying other staff who may be working remotely on the network</li> <li>• cleaning alcohol, epoxy resins and other solvents and chemicals may be carcinogenic, cause allergies or be dangerous to health in other ways</li> <li>• environmental hazards: <ul style="list-style-type: none"> <li>◦ air pollution</li> <li>◦ damage to natural or heritage precincts</li> <li>◦ dangerous gases</li> <li>◦ ground water contamination</li> <li>◦ heavy or noxious metals pollution</li> <li>◦ noise</li> <li>◦ petrochemical spillage</li> <li>◦ release of hydrochlorofluorocarbons (HCFC)</li> </ul> </li> <li>• flammable cleaning chemicals fluids and solvents</li> <li>• fibre offcut damage to eyes and skin</li> <li>• health hazards: <ul style="list-style-type: none"> <li>◦ dangerous or harmful substances</li> <li>◦ handling of optic fibres and lasers</li> <li>◦ risk of infection</li> <li>◦ risk of sustained injury from repetitive tasks</li> </ul> </li> <li>• inhalation of fibre offcuts and particles from vacuum cleaning of worksite</li> <li>• laser damage to eyes</li> <li>• safety hazards: <ul style="list-style-type: none"> <li>◦ biomechanical</li> <li>◦ lifting</li> <li>◦ potentially harmful procedures such as welding</li> <li>◦ working at heights.</li> </ul> </li> </ul>
<b>Designated personnel</b> includes:	<ul style="list-style-type: none"> <li>• management</li> <li>• managers</li> <li>• OHS personnel</li> <li>• other persons authorised or nominated by the enterprise or industry to: <ul style="list-style-type: none"> <li>◦ approve specified work</li> <li>◦ direct specified work</li> </ul> </li> </ul>

<b>RANGE STATEMENT</b>	
	<ul style="list-style-type: none"> <li>◦ inspect specified work</li> <li>◦ perform specified work</li> <li>• supervisors</li> <li>• team leaders.</li> </ul>
<b>Workplace procedures</b> may include:	<ul style="list-style-type: none"> <li>• assessing risks</li> <li>• consulting and participating</li> <li>• controlling hazards</li> <li>• emergency responses to: <ul style="list-style-type: none"> <li>◦ accidents</li> <li>◦ emergencies</li> <li>◦ fires</li> </ul> </li> <li>• identifying hazards</li> <li>• reporting OHS issues</li> <li>• resolving OHS issues</li> <li>• using personal protective equipment.</li> </ul>
<b>Control risks</b> may include:	<ul style="list-style-type: none"> <li>• three steps in risk management process: <ul style="list-style-type: none"> <li>◦ identify hazard</li> <li>◦ assess risk</li> <li>◦ implement control methods.</li> </ul> </li> </ul>
<b>Job safety analysis (JSA)</b> may include:	<ul style="list-style-type: none"> <li>• health, safety and environmental hazards</li> <li>• each new workplace or worksite situation</li> <li>• sheets to record the steps in the risk management process: <ul style="list-style-type: none"> <li>◦ assessment</li> <li>◦ control</li> <li>◦ identification</li> </ul> </li> <li>• primary application of assessment.</li> </ul>
<b>Hazard identification</b> includes:	<ul style="list-style-type: none"> <li>• checking equipment and work area: <ul style="list-style-type: none"> <li>◦ before work commences</li> <li>◦ during work</li> </ul> </li> <li>• housekeeping</li> <li>• reviewing accident or incident records</li> <li>• workplace inspections.</li> </ul>
<b>Risk assessment</b> includes:	<ul style="list-style-type: none"> <li>• a scale: <ul style="list-style-type: none"> <li>◦ low</li> <li>◦ medium</li> <li>◦ high</li> </ul> </li> <li>• awareness of likelihood and consequence factors</li> <li>• JSA.</li> </ul>
<b>Personal protective equipment</b> used to control a hazard may include:	<ul style="list-style-type: none"> <li>• aprons</li> <li>• arm guards</li> <li>• breathing apparatus <ul style="list-style-type: none"> <li>◦ dust masks</li> <li>◦ respirators</li> </ul> </li> <li>• clothing <ul style="list-style-type: none"> <li>◦ boots</li> <li>◦ gloves</li> <li>◦ overalls</li> <li>◦ protective jackets or pants for preparing, cutting or jointing optical fibres</li> </ul> </li> <li>• eye protection</li> </ul>

<b>RANGE STATEMENT</b>	
	<ul style="list-style-type: none"> <li>• face and head protection <ul style="list-style-type: none"> <li>◦ face masks</li> <li>◦ goggles</li> <li>◦ helmets</li> </ul> </li> <li>• gloves</li> <li>• hard hat</li> <li>• hearing protection</li> <li>• high visibility retro reflective vests</li> <li>• protective, well fitting clothing</li> <li>• respiratory protection</li> <li>• safety footwear</li> <li>• UV protective clothing and sunscreen</li> <li>• protective eyewear designed specifically for laser radiation detectors.</li> </ul>
<b>Australian Standards</b> may include:	<ul style="list-style-type: none"> <li>• Australian Communications Industry Forum (ACIF) standards and codes</li> <li>• Australian Communications and Media Authority (ACMA) standards TS 14</li> <li>• AS Communications Cabling Manual (CCM) Volume 1</li> <li>• AS/NZS 3000:2007</li> <li>• AS/NZS 3080:2003</li> <li>• AS/NZS 3084:2003</li> <li>• AS/NZS 3085.1:2004</li> <li>• AS/NZS IEC 61935.1:2006</li> <li>• AS/NZS IEC 61935.2:2006</li> <li>• AS/NZS ISO/IEC 14763.3:2007</li> <li>• AS/NZS ISO/IEC 15018:2005</li> <li>• AS/NZS ISO/IEC 24702:2007</li> <li>• cabling security codes and regulations</li> <li>• Environmental Protection Acts</li> <li>• International Standards ISO 9000 and 9001</li> <li>• International Telecommunications Union (ITU) recommendations</li> <li>• OHS Acts and relevant codes and standards</li> <li>• road and traffic control legislation and codes</li> <li>• technical standards AS/ACIF S008:2006 and AS/ACIF S009:2006</li> <li>• Telecommunications Act and relevant codes.</li> </ul>
<b>OHS communication processes</b> may include:	<ul style="list-style-type: none"> <li>• discussions with OHS representatives</li> <li>• OHS meetings</li> <li>• OHS notices, newsletters, bulletins and correspondence</li> <li>• OHS participative arrangements</li> <li>• processes for raising OHS issues</li> <li>• toolbox talks</li> <li>• workplace consultation relating to OHS issues and changes.</li> </ul>
<b>OHS information and documentation</b> may include:	<ul style="list-style-type: none"> <li>• accident and incident reports</li> <li>• Acts and regulations</li> <li>• Australian standards</li> </ul>

<b>RANGE STATEMENT</b>	
	<ul style="list-style-type: none"> <li>• codes of practice</li> <li>• construction documentation and plans</li> <li>• emergency information contact</li> <li>• evacuation plans</li> <li>• guidance notes</li> <li>• job safety analyses</li> <li>• labels</li> <li>• material safety data sheets (MSDS)</li> <li>• proformas for reporting hazards, incidents and injuries</li> <li>• reports of near misses and dangerous occurrences</li> <li>• risk assessments</li> <li>• safe work method statements</li> <li>• safety meeting minutes</li> <li>• site safety inspection reports.</li> </ul>
<b>Designated OHS personnel</b> may include:	<ul style="list-style-type: none"> <li>• first aid officers</li> <li>• OHS committee members</li> <li>• OHS representatives</li> <li>• supervisors.</li> </ul>
<b>Safety signs and symbols</b> may include:	<ul style="list-style-type: none"> <li>• emergency information signs: <ul style="list-style-type: none"> <li>◦ equipment</li> <li>◦ exits</li> <li>◦ first aid</li> </ul> </li> <li>• fire signs, location of fire alarms and fire fighting equipment</li> <li>• hazard signs danger and warning</li> <li>• regulatory signs: <ul style="list-style-type: none"> <li>◦ mandatory</li> <li>◦ limitation or restriction</li> <li>◦ prohibition</li> </ul> </li> <li>• safety tags and lockout: <ul style="list-style-type: none"> <li>◦ danger tags</li> <li>◦ out of service tags.</li> </ul> </li> </ul>
<b>Relevant authorities</b> may include:	<ul style="list-style-type: none"> <li>• emergency services: <ul style="list-style-type: none"> <li>◦ ambulance</li> <li>◦ emergency rescue</li> <li>◦ fire brigade</li> <li>◦ police</li> </ul> </li> <li>• OHS regulatory authority</li> <li>• supervisor.</li> </ul>
<b>Incidents</b> may include:	<ul style="list-style-type: none"> <li>• accidents resulting in personal injury or damage to property</li> <li>• near misses or dangerous occurrences which do not cause injury but may pose an immediate and significant risk to persons or property, and need to be reported so that action can be taken to prevent recurrence, for example: <ul style="list-style-type: none"> <li>◦ breathing apparatus malfunctioning to the extent that the user's health is in danger</li> <li>◦ collapse of the floor, wall or ceiling of a building being used as a workplace</li> </ul> </li> </ul>

<b>RANGE STATEMENT</b>	
	<ul style="list-style-type: none"> <li>◦ collapse or failure of an excavation more than 1.5 metres deep including any shoring</li> <li>◦ collapse or partial collapse of a building or structure</li> <li>◦ collapse, overturning or failure of the load bearing of any scaffolding, lift, crane, hoist or mine-winding equipment</li> <li>◦ damage to or malfunction of any other major plant</li> <li>◦ electric shock</li> <li>◦ electrical short circuit, malfunction or explosion</li> <li>◦ uncontrolled explosion, fire or escape of gas, hazardous substance or steam</li> <li>◦ any other unintended or uncontrolled incident or event arising from operations carried on at a workplace.</li> </ul>
<b>General procedures for responding to incidents and emergencies</b> may include:	<ul style="list-style-type: none"> <li>• basic emergency response: <ul style="list-style-type: none"> <li>◦ keep calm</li> <li>◦ raise alarm</li> <li>◦ obtain help</li> </ul> </li> <li>• evacuation</li> <li>• notification of designated OHS personnel and authorities</li> <li>• notification of emergency services, when and how</li> <li>• referring to site emergency plans and documentation.</li> </ul>
<b>Emergencies</b> may include:	<ul style="list-style-type: none"> <li>• chemical spill</li> <li>• fire</li> <li>• injury to personnel</li> <li>• structural collapse</li> <li>• toxic and flammable vapours emission</li> <li>• vehicle and mobile plant accident.</li> </ul>
<b>Fire safety equipment</b> may include:	<ul style="list-style-type: none"> <li>• breathing apparatus</li> <li>• fire blankets</li> <li>• fire fighting equipment.</li> </ul>
<b>Participative arrangements</b> may include:	<ul style="list-style-type: none"> <li>• committees: <ul style="list-style-type: none"> <li>◦ consultative</li> <li>◦ OHS</li> <li>◦ planning</li> <li>◦ purchasing</li> </ul> </li> <li>• concerns</li> <li>• health and safety representatives</li> <li>• OHS informal meetings</li> <li>• reports</li> <li>• requests</li> <li>• suggestions.</li> </ul>
<b>Environmental requirements</b> must include:	<ul style="list-style-type: none"> <li>• clean-up management</li> <li>• dust</li> <li>• noise</li> <li>• waste management.</li> </ul>

<b>EVIDENCE GUIDE</b>	
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.	
<b>Overview of assessment</b>	
<b>Critical aspects for assessment and evidence required to demonstrate competency in this unit</b>	<p>Evidence of the ability to:</p> <ul style="list-style-type: none"> <li>• apply personal awareness of: <ul style="list-style-type: none"> <li>◦ OHS legislative and safety requirements for construction work, including duty of care</li> <li>◦ the range of common construction hazards and procedures for the assessment of risk and application of the hierarchy of control</li> <li>◦ OHS communication processes, information and documentation including the role of OHS committees and representatives, the meaning of common safety signs and symbols, and procedures for reporting hazards, incidents and injuries</li> <li>◦ general procedures for responding to incidents and emergencies, including evacuation, first aid, fire safety equipment and personal protective equipment</li> </ul> </li> <li>• recognise and report hazards to designated personnel</li> <li>• follow workplace procedures necessary to control risks in the workplace</li> <li>• safely handle optical fibres and laser sources.</li> </ul>
<b>Context of and specific resources for assessment</b>	<p>Assessment must ensure:</p> <ul style="list-style-type: none"> <li>• relevant OHS Acts, regulations and codes of practice</li> <li>• OHS implementation resources, such as sample forms, signs and procedures</li> <li>• enterprise OHS policies and procedures</li> <li>• personal protective equipment</li> <li>• first aid equipment</li> <li>• fire safety equipment</li> <li>• relevant work areas for identification of hazards and control measures.</li> <li>• optic fibre cabling and equipment.</li> </ul>
<b>Method of assessment</b>	<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"> <li>• direct observation of the candidate applying safety aspects to the handling of optical fibres and lasers</li> <li>• direct observation of the candidate following or participating in common OHS workplace procedures</li> <li>• oral or written questioning to assess knowledge of OHS concepts and applications</li> <li>• evaluation of written reports on hazards and safety recommendations.</li> </ul>
<b>Guidance information for assessment</b>	<p>Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended.</p> <p>Aboriginal people and other people from a non-English</p>

<b>EVIDENCE GUIDE</b>	
	<p>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>