



Australian Government

Department of Education, Employment and Workplace Relations

CPPFES2006A Prepare for installation and servicing operations

Release: 1

CPPFES2006A Prepare for installation and servicing operations

Modification History

Revised unit

Element structure and performance criteria expanded to reflect workplace requirements

Skills and knowledge requirements and the range statement updated

Unit based on PRMPFES06C Prepare for installation and servicing operations

Unit Descriptor

This unit of competency specifies the outcomes required for a service technician in the field to select and use tools and equipment to install and service fire protection equipment, systems and products. It also covers access to information given in relevant Australian standards to carry out servicing procedures. Knowledge of the legal and regulatory framework relating to installation and servicing operations is required, as all preparatory work must be completed according to relevant legislative, industry and organisational requirements, including policies and procedures relating to occupational health and safety (OHS), ozone depleting substances (ODS) and synthetic greenhouse gases (SGG).

The unit supports one or more extinguishing agent handling licences prescribed under the Ozone Protection and Synthetic Greenhouse Gas Management Act 1989.

Application of the Unit

This unit of competency supports fire service technicians involved in non-trade installation or servicing of fire protection equipment.

Licensing/Regulatory Information

Different states and territories may have regulatory mechanisms that apply to this unit. Candidates are advised to check for regulatory limitations.

Pre-Requisites

Not applicable.

Employability Skills Information

This unit contains employability skills.

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.

Elements and Performance Criteria

- | | | | |
|---|--|-----|---|
| 1 | Apply rules and regulations to service operations. | 1.1 | Requirements of relevant <i>rules and regulations</i> are <i>confirmed</i> and applied to <i>work procedures</i> . |
| | | 1.2 | Knowledge of <i>ODS and SGG</i> emission and legislative and industry requirements is applied when preparing for installation and servicing operations. |
| | | 1.3 | <i>Potential and actual breaches of legislative and industry requirements</i> are identified and <i>action</i> is taken according to <i>organisational policies and procedures</i> and ODS and SGG requirements. |
| 2 | Use Australian standards to access information in relation to installation and servicing procedures for fire protection equipment. | 2.1 | Current <i>Australian standards</i> are identified according to <i>fire protection equipment</i> installation and servicing procedures. |
| | | 2.2 | Information is accessed according to required work procedures. |
| | | 2.3 | Key principles from Australian standards relating to work procedures are interpreted and legislative, organisational and <i>customer requirements</i> are met. |
| 3 | Manage service vehicle. | 3.1 | Safety of service vehicles is monitored according to organisational requirements and manufacturers' specifications. |
| | | 3.2 | Relevant items are safely stored according to organisational policies and procedures, and load carrying capacity of the service vehicle. |
| | | 3.3 | Motor vehicles are driven and maintained according to |

organisational requirements.

- | | | | |
|---|---|-----|---|
| 4 | Prepare work area for installation or servicing procedure. | 4.1 | Surface and surrounding work area are assessed for hazards . |
| | | 4.2 | Intended work area is prepared for installation or servicing procedure according to organisational requirements and OHS policies and procedures . |
| 5 | Identify, select and use tools and equipment effectively to perform installation and servicing procedures on fire protection equipment. | 5.1 | Relevant tools and equipment are identified to suit the required installation or servicing procedure. |
| | | 5.2 | Hardware for product installation is identified that is suitable to specific building surface or particular servicing procedure. |
| | | 5.3 | Relevant tools and equipment for installation or servicing procedure are used according to organisational requirements, and ODS, SGG and OHS policies and procedures. |

Required Skills and Knowledge

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

Required skills

- language and literacy skills to access and use information
- observation skills to:
 - identify hazards in the work area in preparation for service operation
 - identify and remove debris in work area caused by installation or servicing operation
- planning and organising skills to:
 - estimate time to complete activities
 - prioritise tasks
- skills to work safely when:
 - selecting and using equipment
 - selecting suitable fixing (hardware) for building surface to support items being fixed according to manufacturers' technical documents for the hardware
 - using tools and equipment

Required knowledge

- action to take when a breach of health, safety or other policy occurs
- appropriate tools and equipment to select for fire protection equipment installation and servicing operations
- awareness of on-site work permit requirements
- definition of terms used in Australian standards, such as:
 - commentary
 - informative
 - referenced document
 - shall
 - should
- federal, state or territory legislation that affects organisational operations, including:
 - anti-discrimination and diversity
 - equal employment opportunity
- implications of not applying legislative requirements to job functions
- key features of legislation, regulations, codes and standards applicable to fire protection equipment installation and servicing procedures, including:
 - purpose, function and structure of Australian standards
 - Building Code of Australia (BCA)
 - occupancy permits

- service manuals and bulletins from manufacturers
- licence requirements for handling ODS and SGG agents
- maintenance requirements for hand and power tools and equipment, including basic daily maintenance procedures for service vehicle
- methods for:
 - converting basic units of measurement and pressure
 - holding work when using power tools
 - using detection equipment for finding hidden utilities
 - using liquid adhesives for attaching location signs
 - preventing ODS and SGG emissions as specified in code of practice
- reasons for preventing ODS and SGG emissions
- reasons and methods for ensuring vehicle stock levels are constantly maintained
- safety requirements for using tools and equipment
- types and purposes of relevant hardware items
- types of electrical safeguards used to protect persons and property

Evidence Guide

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.

Overview of assessment	This unit of competency could be assessed by observation of practical demonstration of preparations for installation and servicing operations.
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>A person who demonstrates competency in this unit must be able to provide evidence of the required skills and knowledge specified in this unit.</p> <p>In particular the person should demonstrate the ability to:</p> <ul style="list-style-type: none"> • locate, interpret and apply relevant information, standards and specifications • comply with site safety plan, OHS regulations and ODS and SGG regulations (where required) and state and territory legislation applicable to workplace operations • comply with organisational policies and procedures, including quality requirements • communicate and work effectively and safely with others • in a minimum of two different settings: <ul style="list-style-type: none"> • adhere to safety procedures during preparation procedures • complete workplace housekeeping requirements • create records and documentation • demonstrate knowledge of the BCA, occupancy permits and service manuals and bulletins from manufacturers • identify and interpret Australian standards relevant to installation and servicing operations • identify, select and use tools, equipment and hardware required to perform installation and servicing operations • identify risk reduction measures • identify, select and assemble hardware • prepare work area for installation and servicing operations • manage service vehicles.
Context of and specific resources for assessment	<p>Assessment of essential underpinning knowledge may be conducted in an off-site context. It is to comply with relevant regulatory or Australian standards' requirements.</p> <p>Resource implications for assessment include:</p> <ul style="list-style-type: none"> • actual or simulated work environment • necessary tools, specialist equipment, manuals, spare parts and relevant documentation, including Australian standards

	<ul style="list-style-type: none"> • assessment documentation • training and assessment record books.
Method of assessment	<p>Assessment methods must:</p> <ul style="list-style-type: none"> • satisfy the endorsed Assessment Guidelines of the Property Services Training Package • include direct observation of tasks in real or simulated work conditions, with questioning to confirm the ability to consistently identify and correctly interpret the essential underpinning knowledge required for practical application • reinforce the integration of employability skills with workplace tasks and job roles • confirm that competency is verified and able to be transferred to other circumstances and environments.
Guidance information for assessment	<p>Reasonable adjustments for people with disabilities must be made to assessment processes where required. This could include access to modified equipment and other physical resources, and the provision of appropriate assessment support.</p> <p>Assessment processes and techniques should as far as is practical take into account the language, literacy and numeracy capacity of the candidate in relation to the competency being assessed.</p> <p>This unit could be assessed on its own or in combination with other units relevant to the job function, for example:</p> <ul style="list-style-type: none"> • CPPFES2004A Identify types of installed fire safety equipment and systems • CPPFES2005A Demonstrate first attack firefighting equipment.

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><i>Rules and regulations</i> may include:</p>	<ul style="list-style-type: none"> • building surveyor requirements, such as occupancy permit • dangerous goods regulations • environmental regulations • fire protection industry codes of practice • licensing arrangements, such as extinguishing agent handling licence • ODS and SGG legislation, codes and regulations, such as Ozone Protection and Synthetic Greenhouse Gas Management Amendment Regulations, 1995 • OHS legislation, codes and regulations • relevant Australian standards, such as: <ul style="list-style-type: none"> • AS 1851 Maintenance of fire protection systems and equipment • AS 2444 Portable fire extinguishers and fire blankets – Selection and location • note: Australian standards are frequently revised and users must always check for currency and amendments • relevant federal, state and territory building Acts, regulations and codes, including the BCA • other relevant legislation relating to fire protection equipment, including: <ul style="list-style-type: none"> • international shipping codes • marine codes for different Australian States • requirements of Australian petroleum industry.
<p>Requirements may be <i>confirmed</i> with:</p>	<ul style="list-style-type: none"> • colleagues • managers • supervisors • team leaders.
<p><i>Work procedures</i> may include:</p>	<ul style="list-style-type: none"> • assignment instructions • equipment manufacturers' requirements • instructions from colleagues, supervisors and managers • personal protective equipment (PPE) requirements • reporting and documentation requirements • specific customer requirements • work instructions to prevent the emission of ODS and SGG in the workplace.

<p><i>ODS and SGG extinguishing agents</i> may include:</p> <p>Note list format: product name (other names) use</p> <p>Check the latest amendments to the Ozone Protection and Synthetic Greenhouse Gas Management Act for the current list of ODS and SGG extinguishing agents.</p>	<ul style="list-style-type: none"> • ODS and SGG extinguishing agents commonly used in Australia: <ul style="list-style-type: none"> • FM200 (FE-227 Heptafluoropropane, HFC-227ea) used as a total flooding extinguishing agent and as a replacement for Halon 1301 • Halon 1211 (BCF, Halon 1211 BCF, Bromochlorodifluoromethane) used as a streaming agent – requires a special permit in Australia • Halon 1301 (BTM, Halon 1301 BTM, Bromotrifluoromethane) used as a total flooding agent – requires a special permit in Australia • NAF-P-III (HCFC Blend C) used as a streaming agent • NAF-P-IV (HCFC Blend E) used as a streaming agent • NAF-S-III (HCFC Blend A) used as a total flooding agent • SF6 (Sulfurhexafluoride) used as an inerting agent in sealed high voltage switchgear • ODS and SGG extinguishing agents not commonly used in Australia: <ul style="list-style-type: none"> • Blitz III (HCFC Blend D) used in flooding systems • CFC-11 (Trichlorofluoromethane) may be found as a propellant in some powder fire extinguishers (this product is banned in Australia but may be found on incoming foreign vessels) • FC-2-1-8 (CEA-308) used in flooding systems • FC-3-1-10 (CEA-410) used in flooding systems • FC-5-1-14 (CEA-614) used as a streaming agent • FE-13 (Trifluoromethane, HFC-23) used as a total flooding agent • FE-241 (Chlorotetrafluoroethane, HCFC-124) used as a total flooding agent for non-occupied spaces and as a streaming agent • FE-25 (Pentafluoroethane, HFC-125) used in inerting and explosion suppression applications • FE-36 (Hexafluoropropane, HFC-236fa) used in portable fire extinguishers – is a replacement for Halon 1211 and Halon 1301 • FM100 (HBFC-22B1) used in portable fire extinguishers • Halon 2402 (Dibromotetrafluoroethane) limited use in military systems – requires a special permit in Australia • Halotron I (HCFC Blend B or HCFC-123) used as a total flooding agent and streaming agent • Halotron II (blend of HFC-143a and HFC-125) used as a total flooding agent and as a replacement for Halon 1301
---	---

	<ul style="list-style-type: none"> • HCFC-22 (Chlorodifluoromethane) used as a propellant in some powder fire extinguishers (this product is banned in Australia but may be found on incoming foreign vessels) • HFC-134a (Unsymmetric tetrafluoroethane) used as a propellant in some powder fire extinguishers.
<p>Potential and actual breaches of legislative and industry requirements may include:</p>	<ul style="list-style-type: none"> • actions by fire protection technicians, such as: <ul style="list-style-type: none"> • failing to: <ul style="list-style-type: none"> • carry out work procedures correctly • complete documentation accurately • report a system or component fault or malfunction to appropriate personnel • making alterations to procedures, equipment or systems without prior authorisation from an approved authority • performing: <ul style="list-style-type: none"> • unauthorised work • work without appropriate qualification(s) or training • working in an unsafe manner • documentation anomalies observed by fire protection technicians, such as: <ul style="list-style-type: none"> • incorrect or incomplete information or documentation • missing documentation • signed by unauthorised personnel • equipment or system is identified as no longer fit for purpose, due to: <ul style="list-style-type: none"> • component or system faults or malfunctions • changes to: <ul style="list-style-type: none"> • building structure • site usage or occupancy • protected asset • fire protection equipment or systems not matching ‘as built’ or installation drawings.
<p>Action may include:</p>	<ul style="list-style-type: none"> • advising customer • documenting non-compliance • making equipment safe • reporting, as required.
<p>Organisational policies and procedures may be located in quality assurance and/or procedures manuals and relate to:</p>	<ul style="list-style-type: none"> • documentation and information systems and processes • legal and organisational policies and guidelines, including personnel practices and guidelines outlining work roles, responsibilities and delegations • legislation relevant to service operations • ODS and SGG policies, procedures and programs

	<ul style="list-style-type: none"> • OHS policies, procedures and programs • using electronic job scheduling and communication devices.
<i>Australian standards</i> are:	<ul style="list-style-type: none"> • often referenced in state or federal legislation • published documents developed by technical committees representing the stakeholders • set out specifications and procedures designed to ensure that a material, product, method or service is fit for its purpose and consistently performs or is performed in the way intended.
<i>Fire protection equipment</i> may include:	<ul style="list-style-type: none"> • delivery lay flat fire hoses • dry powder fire-suppression systems • fire alarm monitoring systems • fire and smoke control features of heating, ventilation and air conditioning systems • fire blankets and containers • fire detection systems • fire hose reels • fire hydrant installations • fire pumpsets • fire sprinklers • fixed aerosol fire-extinguishing systems • foam fire-suppression systems • gaseous fire-suppression systems • medium and high velocity water spray systems • passive fire and smoke containment systems • portable fire extinguishers • portable foam-generating equipment • pyrogenic fire-suppression systems • smoke and heat alarms • sound and intercom warning systems • water mist fire-suppression systems • wet chemical fire-suppression systems • wheeled fire extinguishers.
<i>Customer requirements</i> may include:	<ul style="list-style-type: none"> • confirming or varying service instructions • copy or details of occupancy permit • following sign-in and sign-out procedures for entry to or exit from premises • providing non-routine or urgent services • providing routine services • providing written or verbal confirmation of services provided and future maintenance schedule • sighting work permits.
<i>Hazards</i> may include:	<ul style="list-style-type: none"> • environmental, such as improper use of hazardous materials and

	<ul style="list-style-type: none"> chemicals, including ODS and SGG • equipment in a work site • ergonomic, such as incorrect manual-handling methods • hazards associated with electrical or mechanical faults • obstructive, such as blocked access to emergency entry or exit points • people in a work site • situations with a potential to cause loss • sources of potential harm • work methods, plans and procedures.
<p><i>OHS policies and procedures</i> may relate to:</p>	<ul style="list-style-type: none"> • assessing work site for hazards and risks prior to preparing it for the work procedure • displaying signs and using barriers in work area • employer and employee rights and responsibilities • equipment maintenance and use • first aid • incident and accident investigation • OHS audits and safety inspections • OHS hierarchy of control • risk assessment and control measures • safe operating procedures and instructions, including: <ul style="list-style-type: none"> • awareness of electrical hazards • emergency procedures • following confined spaces procedures • hazard and risk identification and reporting • those for working safely: <ul style="list-style-type: none"> • around electrical wiring, cables and overhead powerlines • around tools and equipment • on ladders and raised platforms • use and storage of hazardous substances • using PPE, including: <ul style="list-style-type: none"> • appropriate gloves and overalls • dust masks • earmuffs or plugs • hard hats • safety boots or shoes • safety glasses or goggles • sunhats.
<p><i>Tools and equipment</i> required to cover range of installation and servicing</p>	<ul style="list-style-type: none"> • fire equipment spare parts, including: <ul style="list-style-type: none"> • anti-tamper seals • hoses

procedures may include:	<ul style="list-style-type: none"> • labels • nozzles • pressure indicators • seals and gaskets • service tags • trigger pins • valves • hand tools, including: <ul style="list-style-type: none"> • hammers • pliers • screwdrivers • spanners • spirit levels • manual-handling aids, including: <ul style="list-style-type: none"> • hand trucks • hooks • lifting magnets and lifting straps • suction grips • trolleys • wheelbarrows • non-licensed mechanical-handling aids, including: <ul style="list-style-type: none"> • cranes • hoists • manually-operated forklifts and pallet trucks • power tools, including: <ul style="list-style-type: none"> • battery powered drills • hammer drills • nail guns • servicing tools and equipment, including: <ul style="list-style-type: none"> • hydrostatic test equipment • recharging and pressurising equipment • safety equipment • scales • service tag punch.
Hardware relevant to the wall surface and type of product to be installed or serviced may include:	<ul style="list-style-type: none"> • bolts • double-sided tape • explosive powered fasteners • hanging brackets • identifying signs • liquid adhesives

	<ul style="list-style-type: none">• locks• locksets• nails• plugs• screws.
<i>Building surface</i> may include:	<ul style="list-style-type: none">• autoclaved aerated concrete (AAC) wall, such as:<ul style="list-style-type: none">• Besser concrete block• Hebel block wall• brick wall• concrete• plasterboard• rendered brick• steel sheeting• structural steel members• tiled wall.

Unit Sector(s)

Fire protection equipment

Custom Content Section

Not applicable.