



Australian Government

Department of Education, Employment and Workplace Relations

CPPFES3024A Inspect and maintain portable foam-generating equipment

Release: 1

CPPFES3024A Inspect and maintain portable foam-generating equipment

Modification History

Revised unit

Unit updated and equivalent to PRMPFES24B Inspect and maintain portable foam generating equipment

Unit Descriptor

This unit of competency specifies the outcomes required to inspect and maintain a range of foam-generating equipment and hose reel foam units.

Application of the Unit

This unit of competency supports fire protection technicians responsible for inspecting and maintaining portable foam-generating fire-suppression equipment.

Licensing/Regulatory Information

Work in this area must be completed according to relevant legislative, industry, customer and organisational requirements, including occupational health and safety (OHS) policies and procedures.

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 installation operations. | 1.1 | Requirements of relevant <i>rules and regulations</i> are <i>confirmed</i> and applied to <i>work procedures</i> . |
| | | 1.2 | <i>Compliance requirements are checked</i> and <i>action</i> is taken according to <i>organisational policies and procedures</i> . |
| 2 | Inspect, install and maintain hose reel foam units. | 2.1 | Work permits are obtained prior to entering customer premises. |
| | | 2.2 | <i>Hose reel foam units</i> are inspected, installed and maintained according to relevant service manuals and bulletins, manufacturers' specifications and instructions, and organisational requirements. |
| | | 2.3 | Faulty equipment is reported, and repaired or replaced according to work procedures, <i>customer requirements</i> and technical specifications. |
| | | 2.4 | <i>Documentation</i> is completed according to organisational and customer requirements, and relevant Australian standards. |
| 3 | Inspect and maintain portable foam-generating equipment. | 3.1 | Work permits are obtained prior to entering customer premises. |
| | | 3.2 | Samples of foam concentrates are collected according to work procedures and manufacturers' requirements. |
| | | 3.3 | <i>Foam-generating equipment</i> is inspected and maintained according to relevant maintenance schedules, service manuals and bulletins, manufacturers' specifications and instructions, and organisational |

requirements.

- 3.4 Faulty equipment is reported, and repaired or replaced according to work procedures, customer requirements and technical specifications.
- 3.5 ***Maintenance equipment and tools*** are inspected for faults, wear or damage according to work procedures and manufacturers' specifications.
- 3.6 Documentation is completed according to organisational and customer requirements, and relevant Australian standards.

Required Skills and Knowledge

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

Required skills

- customer service skills
- technical skills to collect foam samples effectively
- language, literacy and numeracy skills to:
 - communicate with others clearly and concisely, verbally and in writing
 - record and report information neatly and legibly
 - read and comply with work instructions and specifications
 - read and record measurements
- planning and organising skills to:
 - estimate time to complete activities
 - prioritise tasks
- interpersonal skills to relate to people from a range of social and cultural backgrounds
- skills to work safely when:
 - applying workplace housekeeping procedures
 - using hand tools

Required knowledge

- action to take when there is a breach of health, safety or other policy
- key features of legislation, regulations and codes applicable to inspecting and maintaining portable foam-generating equipment, including:
 - implications of not applying legislative requirements to job functions
 - purpose of the Building Code of Australia (BCA)
- characteristics of effective foam
- classification and purpose of each type of foam
- difference between portable and fixed foam storage
- environmental considerations relating to foams
- foam suitability for different fire types and typical uses
- how foam is generated and can be used to extinguish a fire
- how to determine amount of foam concentrate required to be added to a tank for correct mix, given volume of water in a tank and foam concentrate percentage
- how to determine storage requirements, shelf life and storage temperature range from a given foam concentrate material safety data sheet (MSDS)
- features and function of major items of foam-generating equipment
- meaning of foam percentages
- principles of operation of:
 - portable foam-generating equipment
 - portable foam proportioning equipment and in-line proportioning equipment, such as:
 - in-line inductors

- inflatable bladder proportioning
- positive displacement pump proportioning
- around-the-pump proportioning
- purpose of inductors
- reason and methodology for collecting foam concentrate samples from a concentrate storage container

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 demonstrations of inspection and maintenance of portable foam-generating equipment.
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"> • undertake inspect and test procedures on each of the following: <ul style="list-style-type: none"> • hand-held foam branch pipe • hose reel foam unit • mobile unit foam generator • portable in-line foam inductor • portable monitor • install a hose reel foam unit • take suitable foam concentrate samples from a concentrate container to send to an approved test laboratory.
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"> • access to customer premises or a simulated workplace environment • necessary tools, specialist equipment, manuals and relevant documentation.
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.</p>
-------------------------------------	--

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.

<i>Rules and regulations</i> may include:	<ul style="list-style-type: none"> • dangerous goods regulations • environmental regulations • licensing arrangements • OHS legislation, regulations and codes • relevant commonwealth and state or territory building Acts, regulations and codes, such as the BCA • relevant Australian standards, such as: <ul style="list-style-type: none"> • AS 1851 Maintenance of fire protection systems and equipment • note: Australian standards are frequently revised and users must always check for currency and amendments • 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.
Requirements may be <i>confirmed</i> with:	<ul style="list-style-type: none"> • colleagues • managers • supervisors • team leaders.
<i>Work procedures</i> may include:	<ul style="list-style-type: none"> • assignment instructions • equipment manufacturers' requirements

	<ul style="list-style-type: none"> • instructions from colleagues, supervisor or manager • personal protective equipment requirements • reporting and documentation requirements • specific customer requirements.
Checking compliance requirements may include:	<ul style="list-style-type: none"> • applying inspection, test and survey requirements according to Australian standards • reviewing documentation to verify that installed equipment complies with relevant rules and regulations.
Action may include:	<ul style="list-style-type: none"> • advising customer • documenting non-compliance • making equipment safe • reporting, as required.
Organisational policies and procedures may include:	<ul style="list-style-type: none"> • job scheduling systems and communication devices • personnel practices and guidelines outlining work roles, responsibilities and delegations • recording and reporting documentation and systems • relevant OHS policies, procedures and programs • relevant rules and regulations • standard operating procedures, work instructions and manuals.
Hose reel foam units include:	<ul style="list-style-type: none"> • equipment connected to a standard hose reel, such as: <ul style="list-style-type: none"> • hose reel foam-making branch pipe with siphon connection • specially adapted foam concentrate extinguisher.
Customer requirements may include:	<ul style="list-style-type: none"> • confirming or varying service instructions • 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 or future maintenance schedule • sighting work permits.
Documentation may include:	<ul style="list-style-type: none"> • certificates of inspection • corrective action reports • customer recommendation forms • equipment recommendation forms • expense claims • job cards • maintenance record system • motor vehicle fleet cards • product documentation • service agreements.
Foam-generating	<ul style="list-style-type: none"> • equipment used with fire hose lines, such as:

<i>equipment</i> includes:	<ul style="list-style-type: none"> • adjustable spray or straight stream nozzles • high expansion foam generator • low expansion foam-making branch pipe • medium expansion foam-making branch pipe • portable in-line foam inductors • portable monitors, such as: <ul style="list-style-type: none"> • ground monitors • trailer or mobile mounted monitors • mobile unit consisting of foam concentrate tank, foam inductor and foam-making branch pipe.
<i>Maintenance equipment and tools</i> may include:	<ul style="list-style-type: none"> • hand tools, such as: <ul style="list-style-type: none"> • pliers • screwdrivers • spanners • power tools • specialist equipment, such as a spectrometer.

Unit Sector(s)

Fire protection equipment

Custom Content Section

Not applicable.