



Australian Government

Department of Education, Employment and Workplace Relations

PRMPFES36A Identify passive fire and smoke containment products and systems

Release: 1

PRMPFES36A Identify passive fire and smoke containment products and systems

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit of competency prepares the technician for their role in the field by ensuring they can identify a variety of passive fire and smoke containment products, installations and systems in a variety of settings. This unit also covers the knowledge and skills required to be able to access, interpret and comply with relevant information contained in standards and legislation in order to carry out inspection and testing procedures relating to passive fire and smoke containment.

Adequate knowledge and appropriate use of industry terminology is expected and all preparatory work must be completed in accordance with relevant legislative, industry, and organisational requirements, including occupational health and safety (OHS) policies and procedures.

Note: The passive fire service technician is not permitted to undertake any installation, replacement, maintenance and repair functions that are restricted to licensed trades or occupations (subject to relevant state/territory regulations).

Application of the Unit

Not Applicable

Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Not Applicable

Employability Skills Information

Not Applicable

Elements and Performance Criteria Pre-Content

Not Applicable

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1 Interpret and comply with legal and industry requirements relating to passive fire and smoke containment	1.1 Apply knowledge and understanding of legislative, standards and industry <i>requirements</i>, including relevant state/territory building codes, to passive fire and smoke containment <i>work procedures</i> 1.2 Confirm or clarify knowledge and understanding of <i>requirements</i>, including state/territory building codes, where necessary, with <i>relevant persons</i> 1.3 Identify <i>potential and actual breaches</i> of <i>requirements</i> relating to passive fire and smoke containment and take action according to legislative and <i>organisational requirements</i>
2 Identify passive fire and smoke containment installations and systems in a <i>range of settings</i>	2.1 Identify different types of <i>passive fire and smoke containment products</i> according to purpose of use, operation and location 2.2 Identify/locate components of passive fire and smoke containment installations and systems according to design, operation and purpose of use 2.3 Identify/locate components of <i>passive fire and smoke containment solutions</i> 2.4 Identify/locate evidence of identification of passive fire and smoke containment products, installations, systems and solutions

Required Skills and Knowledge

Refer to Evidence Guide

Evidence Guide

EVIDENCE GUIDE

Knowledge needed to achieve the performance criteria

Knowledge and understanding are essential to apply this unit of competency in the workplace, to transfer the skills to other contexts, and to deal with unplanned events. The knowledge requirements for this unit are listed below.

- Key features of legislation, Australian Standards and building code requirements relating to passive fire and smoke containment.
- Key features of legislation, Australian Standards and building code requirements relating to fire and smoke containment.
- The implications of not applying legislative requirements to job functions.
- Principles of passive fire protection related to overall fire safety and containment systems specific to fire and smoke containment
- Key physical features and definition of fire and smoke containment products
- Purpose of passive fire products, system and installations for fire and smoke containment.
- Range of passive fire products, system and installations for fire and smoke containment.
- Action to take in the event of a breach of legislative requirements.
- Specific organisational requirements and work procedures for identifying passive fire products, system and installations for fire and smoke containment.
- Purpose of and differences between material types in passive fire products, system and installations.
- Procedures for determining fire resistance levels.

Specific skills needed to achieve the performance criteria

To achieve the performance criteria, some complementary skills are required. These relate to the ability to:

- interpret manufacturer data sheets to identify the range of passive fire and smoke containment system components installed into or onto elements of construction, including structural elements and/or openings in or through fire compartments
- use technical terminology relating to work practices
- use measurement tools relating to passive fire products, system and installations for fire and smoke containment
- recognise and identify components of passive fire products, system and installations for fire and smoke containment
- plan and organise work according to organisational requirements
- follow safe work procedures and identify potential and existing risks or hazards
- work with tools, equipment and products safely
- apply literacy and language skills to:
 - understand and comply with work instructions
 - find and use written information including building specifications
 - communicate technical information to customers and colleagues
 - read and comprehend product instructions.

Other units of competency that could be assessed with this unit

Competency in this unit underpins competency in other aspects of servicing and installing passive fire protection equipment. This unit is a prerequisite for the following technical fire protection units in the PRM04 Asset Maintenance Training Package:

- PRMFES39A Inspect and test passive fire and smoke containment products and systems
- PRMPFES40A Install passive fire and smoke containment systems.

Resources required to assess this unit

The following resources should be available:

- actual or simulated work environment
- access to relevant standards and legislation
- access to a variety of passive fire and smoke containment products, installations and solutions
- assessment documentation
- training and assessment record book.

Gaining evidence to assess this unit

For valid and reliable assessment of this unit, the competency should be demonstrated over a period of time and be observed by the assessor (or assessment team working together to conduct the assessment). The competency is to be demonstrated in a range of situations, which may include customer/workplace interruptions and involvement in related activities normally experienced in the workplace.

All safety requirements must be adhered to during all practical activities.

Performance and assessment of this unit must be carried out within the relevant requirements of the following legislative and industry framework:

- building Acts/regulations/codes
- Australian Standards identified as relevant to the work procedure
- environmental regulations
- manufacturers' specifications
- organisational requirements, including OHS policies and procedures
- OHS legislation, codes and regulations.

Assessment of underpinning knowledge is best obtained by either oral questioning or a written assessment. (In both assessment methods the questions should be identical in context.) Evidence of competency is also based on the candidate's ability to identify and explain the purpose of items described in the range statement. Assessment of evidence should establish the candidate's ability to perform identification processes to the standard required in the workplace. Supplementary evidence may be obtained from relevant authenticated correspondence or reports from supervisors or team leaders.

Key competency levels

There are a number of processes learnt throughout work and daily life that are required in all jobs. They are fundamental processes and generally transferable to other work environments. Some of these work processes are covered by the key competencies listed below. Information provided to each question highlights how these processes are applied in this unit of competency.

The number in brackets indicates the level to which the key competency should be demonstrated.

- | | | |
|------------------------------|---|---|
| 1 Perform the process | 2 Perform and administer the process | 3 Perform, administer and design the process |
|------------------------------|---|---|

How can information be collected, analysed and organised (2) ?	Gather and analyse information from a number of sources to identify relevant product(s) while applying relevant legislation and industry requirements.
How can communication of ideas and information (1) be applied?	Discuss ideas and the recording of information of customers and/or relevant persons.
How are activities planned and organised (2) ?	Identify passive fire and smoke containment using organisational requirements and monitoring of work activities and observing workplace safety procedures.
How can teamwork (1) be applied?	Discuss with supervisor or colleagues the identification process.
How can the use of mathematical ideas and techniques (2) be applied?	Apply mathematical techniques, including reading spatial information (e.g. building plans and specifications) to identify processes and using calculation for fire and smoke resistance levels.
How can problem-solving skills (1) be applied?	Discuss potential problems during the identification process and seek solutions and clarification.
How can the use of technology (2) be applied?	Identify and demonstrate understanding of technological principles in identification and preparatory processes.

Range Statement

RANGE STATEMENT

The range statement links the required knowledge and organisational and technical requirements to the workplace context. It describes any contextual variables that will be used or encountered when applying the competency in work situations. It allows for different work practices and work and knowledge requirements as well as for differences between organisations and workplaces. The following variables may be present for this particular unit.

Requirements may include:

- relevant Commonwealth and state/territory building Acts/regulations/codes
- OHS legislation, codes and regulations
- relevant Australian Standards
- Building Code of Australia
- dangerous goods regulations
- manufacturers' documentation
- licensing arrangements
- environmental regulations
- building surveyor requirements

- other relevant legislation relating to passive fire protection.

Work procedures may include:

- instructions from colleagues/supervisor/manager
- specific customer requirements
- assignment instructions
- equipment manufacturers' requirements
- reporting and documentation requirements
- personal protective equipment requirements.

Relevant persons may include:

- building surveyor
- fire safety engineer
- regulatory authority representative
- building supervisor/manager
- team leaders
- supervisors
- managers
- colleagues
- customers.

Organisational requirements may be located in quality assurance and/or procedures manuals relating to:

- legal and organisational policy/guidelines
- personnel practices and guidelines outlining work roles, responsibilities and delegations
- legislation relevant to the service operation
- OHS policies, procedures and programs
- documentation and information systems and processes
- use of electronic job scheduling and communication devices
- OHS policies and procedures may relate to:
 - employer/employee rights and responsibilities
 - the OHS hierarchy of control
 - assessing the worksite for hazards and risks prior to preparing the worksite for the work procedure
 - displaying signs and/or utilising barriers in the work area
 - hazard and risk identification and reporting
 - risk assessment and control measures
 - incident/accident investigation
 - OHS audits and safety inspections
- safe operating procedures/instructions including:
 - working safely around electrical wiring, cables and overhead powerlines
 - working safely around tools and equipment
 - risk and hazard recognition
 - working safely off ladders and raised platforms
 - emergency procedures
 - awareness of electrical hazards
 - following confined spaces procedures
 - utilising personal protective equipment including:

- safety glasses or goggles
- safety boots or shoes
- hard hat
- ear muffs or plugs
- appropriate gloves and overalls
- sun hat
- dust mask
- equipment maintenance and use
- use and storage of hazardous substances
- First Aid.

Potential and actual breaches of legislative and industry requirements could be identified by:

- direct observation
- as part of workplace quality assurance teams.

Passive fire and smoke containment systems include:

- passive fire and smoke containment products including:
 - fabric and timber protection (impregnated or sprayed)
 - fire rated air transfer grilles
 - mechanical and intumescent fire dampers
 - smoke dampers
 - fire resistant boards (calcium silicate, vermiculite, etc)
 - fire stop collars (cast in, retrofit, wall, etc)
 - fire rated sealants, caulks and putties (acrylic, polyurethane, silicone, etc)
 - linear gaps seals (impregnated foams, tapes, intumescent gaskets and sealants)
 - fire resistant pillows (intumescent and non-intumescent)
 - fire resistant mortars and grouts (load bearing and non-load bearing)
 - intumescent paints and coatings (other than those used for fireproofing structural steel)
- materials into or onto which passive fire and smoke containment products are installed including:
 - masonry
 - concrete
 - timber
 - steel
 - plasterboard
 - UPVC
 - fire resistant board
- passive fire and smoke containment solutions including:
 - structural steel fireproofing/protection
 - duct fireproofing/protection
 - duct/damper penetration protection
 - ceiling and partition systems
 - penetration solutions
 - fire rated sealants
 - UPVC/plumbing penetrations
 - access panels and hatches

- intumescent dampers and seals
- protection against spread of flame
- industrial fire protection
- openings in structural elements
- control joints/expansion joints.

Note: Australian Standards are frequently revised and users must always check for currency.

Unit Sector(s)

Not Applicable