



Australian Government

Department of Education, Employment and Workplace Relations

PRMFSSI03A Review pre-installation fire safety system documentation

Release: 1

PRMFSSI03A Review pre-installation fire safety system documentation

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit of competency covers the skills and knowledge required to provide pre-installation advice acquired from the interpretation of fire safety system documentation - technical drawings, plans and specifications of fire safety system and associated fire safety sub-systems.

These work functions are carried out without supervision.

Fire safety system inspectors are not expected to be able to determine or interpret documentation design requirements for fire safety sub-systems that form alternative, fire-engineered solutions that do not comply with the relevant Australian Standard for that sub-system.

Note: It is a prerequisite of this unit of competency that fire safety system inspectors demonstrate the relevant technical skills and knowledge prior to inspecting fire safety systems and associated fire safety sub-systems.

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 Confirm the efficient integration of the fire safety system and associated fire safety sub-systems with other systems on the plans	1.1 Check that the layout of the fire safety system and associated fire safety <i>sub-systems</i> meet the <i>physical restrictions</i> of the building structure in accordance with documentation 1.2 Confirm that the fire safety system and associated fire safety sub-systems do not interfere with the effective and efficient operation of <i>other services</i> 1.3 Confirm that the proposed fire safety system and associated fire safety <i>sub-systems</i> are compatible with the <i>other services</i> provided 1.4 Confirm that the operation of the fire safety system and associated fire safety <i>sub-systems</i> are coordinated with relevant <i>other services</i>
2 Identify documentation inconsistencies and report accordingly	2.1 Identify and clarify with the client any perceived <i>documentation inconsistencies</i> in the fire safety system or sub-system documentation submitted by the <i>client or other stakeholders</i> 2.2 Identify and discuss with the client any perceived or actual installation problems with reference to submitted documentation 2.3 Liaise with <i>client and other stakeholders</i> to modify documentation to address identified system integration, installation difficulties and perceived or actual maintenance difficulties
3 Confirm adequacy of the fire safety system and associated fire safety sub-systems specifications in documentation	3.1 Confirm sectional drawings highlight <i>critical features</i> 3.2 Confirm that the quality and quantity of information within documentation complies with all <i>relevant standards, codes and legislative requirements</i> 3.3 Confirm all modifications to original fire safety system specifications, technical drawings and plans are documented and dated, and other documentation is modified to reflect installed sub-system modifications

Required Skills and Knowledge

Refer to Evidence Guide

Evidence Guide

EVIDENCE GUIDE

The evidence guide identifies the requirements to be demonstrated to confirm competence for this unit. Assessment must confirm sufficient ability to use appropriate skills and knowledge to review pre-installation fire safety system documentation. Assessment of performance should be conducted within an agreed timeframe, covering all categories within the range statement applicable to normal work requirements.

Critical aspects of competency

- Provide pre-installation advice acquired from the interpretation of fire safety system documentation - technical drawings, plans and specifications of fire safety system and associated fire safety sub-systems.
- Check that the fire safety system and associated fire safety sub-systems' dimensions and layout provided on pre-installation technical drawings and plans match actual building site requirements.
- Correctly identify symbols shown on fire safety system technical drawings and plans that relate to the pre-installation requirements of any part of a fire safety system and associated fire safety sub-systems.
- Correctly identify equipment manuals, equipment specifications and operator instructions that relate to proposed or installed fire systems and sub-system components.
- Confirm that the quality and quantity of information within documentation (technical drawings and plans, manuals and specifications) complies with agreed requirements, relevant standards, codes and legislative requirements.
- Confirm pre-installation fire safety system plans and specifications, the efficient integration, operation and compatibility of the fire safety system, and associated fire safety sub-systems with other services on the plans.
- Identify and record inconsistency issues related to fire safety system integration and appropriate documentation, and to the installation of the fire safety system.
- Identify and discuss documentation inconsistencies that do not meet agreed requirements and/or legislative requirements relevant to technical drawings, plans, manuals and specifications for pre-installed, new, existing or modified fire safety sub-systems.
- Suggest, develop and discuss modifications to documentation intended to address fire safety system integration and inconsistency issues with client.
- Communicate with client and other stakeholders to address inconsistency issues.

Knowledge needed to achieve the performance criteria

Knowledge and understanding are essential to apply this unit in the workplace, to transfer the skills to other contexts, and to deal with unplanned events. The knowledge requirements embedded in performance include those listed below.

- Procedures for installing fire safety systems and associated fire safety sub-systems.
- Principles of how fire safety system and associated fire safety sub-systems interact with other services.
- Working knowledge of the standards, codes and legislative requirements relevant to the inspection of fire safety systems and associated fire safety sub-systems.
- Symbols shown on fire safety system technical drawings and plans that relate to the pre-installation requirements of any part of a fire safety system.
- Working knowledge of drafting standards and procedures applied to building design.
- Principles of critical features identified and/or highlighted in sectional drawings.

- Methods of confirming that modifications to the fire safety system and associated fire safety sub-systems are recorded on the original documentation.
- Working knowledge of the documentation needs and requirements of operators and maintenance personnel working on fire safety sub-systems.
- Principles of maintenance and operator manuals.

Specific skills needed to achieve the performance criteria

To achieve the performance criteria, some complementary skills are required. These include the following.

- Effective networking.
- Active listening techniques.
- Effectively presenting information.
- Effective telephone techniques.
- Interpreting plans, drawings and timelines.
- Organising, collecting, collating, recording and storing information.
- Basic word-processing skills.
- Measuring and checking calculations.
- Interpreting information provided by client and other stakeholders.
- Requesting advice or additional information from others in the workplace.
- Interpreting technical data sheets for fire sub-system equipment and verifying that installation and maintenance needs are documented in a manner that ensures that installers, operators and maintenance personnel can refer to the documentation to carry out their required duties in compliance with submitted documentation and manufacturers' data sheets.
- Identifying inconsistencies in submitted documentation on fire sub-systems that do not satisfy agreed requirements and/or legislative requirements.
- Language, literacy and numeracy skills necessary to process written and verbal information and perform basic calculations related to the job.

Other units of competency that could be assessed with this unit

This unit of competency can be assessed on its own or in conjunction with any practical unit.

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.

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.

Assessment of competency may be made through practical demonstration in the work environment or in a simulated work environment.

Key competency levels

There are a number of processes that are learnt throughout work and life that are required in all jobs. They are fundamental processes and generally transferable to other work functions. Some of these are covered by the key competencies, although others may be added.

Information below highlights how these processes are applied in this unit of competency.

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

How can communication of ideas and information be applied?	2	Provide pre-installation advice and confirm with the clients and other stakeholders the efficient integration of the fire safety system and associated fire safety sub-systems with other services. Report and discuss documentation inconsistencies with clients and other stakeholders. Complete modifications to fire safety systems documentation, as required.
How can information be collected, analysed and organised ?	2	Collect and record information by viewing and checking pre-installation fire safety system documentation. Identify and record documentation inconsistencies. Develop solutions to address documentation inconsistencies and communicate solutions to clients and other stakeholders, as required. Record and document appropriately modifications developed to address fire safety system integration and inconsistency issues.
How are activities planned and organised ?		Not relevant to this unit.
How can teamwork be applied?		Not relevant to this unit.
How can the use of mathematical ideas and techniques be applied?	2	Check specifications and calculations to ensure that the fire safety system requirements integrate effectively and efficiently with other services. Check, confirm and record modifications made to fire safety systems.
How can problem-solving skills be applied?	2	Identify and discuss documentation inconsistencies with clients and other stakeholders to ensure that appropriate solutions are developed. Check and confirm with clients and other stakeholders that documentation is modified to match developed solutions.
How can the use of technology be applied?	1	Access and follow up documentation relevant to pre-installation fire safety system documentation using appropriate technology such as personal computers, database systems and the Internet.

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 may 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 are listed in alphabetical order and may be present for this particular unit.

Clients and other stakeholders may include:

- agents/agent representatives
- builders
- building architects
- building owners/occupiers
- building surveyors
- federal/state/territory/local government authorities
- fire and other regulatory authorities
- fire engineers
- fire safety system designers
- fire safety system installers
- industry associations
- maintenance providers
- other appropriate bodies or organisations
- project managers/site managers.

Critical features may include:

- airflow characteristics
- beams
- bulkheads and special ceiling features
- designated exits and paths of travel
- fire safety system equipment - quantities and types
- fire walls
- isolation valves
- materials used
- other fire protection sub-systems
- smoke walls
- water supply.

Documentation inconsistencies may include:

- design and maintenance manual requirements
- fire engineering design requirements
- instructional and informal operator statements and drawing requirements
- physical characteristics of the building
- physical layout of the fire safety system and associated fire safety sub-systems
- relevant standards, codes and legislative requirements.

Fire safety sub-systems may include:

- dry chemical powder systems

- emergency evacuation lighting systems
- emergency luminaries and exit signs
- emergency warning and intercommunication systems
- external wall-wetting sprinklers
- fire and smoke control systems
- fire brigade hydrant and water supply booster and feed connections
- fire brigade intervention plans
- fire detection and alarm systems
- fire fighting equipment
- fire hydrants and fire hose reels
- fire pump set systems
- fire resistant door-sets and roller shutters
- fire resistant sealing service penetrations and control joints
- fire resistant separating building elements
- fire sprinkler deluge systems
- fire sprinkler pre-action and dry pipe systems
- fire sprinkler systems - domestic, residential, commercial and industrial
- gaseous agent suppression systems
- high and medium velocity water spray systems
- high expansion foam systems and low expansion foam systems
- emergency warning and intercommunication system
- portable fire extinguishers
- smoke and heat venting systems
- water mist systems
- wet chemical systems.

Other services may include:

- air conditioning systems - heating and ventilation
- communications systems - telephone lines, data lines and sound systems
- electrical systems - lighting and power
- fire safety sub-systems
- plumbing systems - reliable service, water supplies and discharge points.

Physical restrictions of the building structure may include:

- sizes and areas defined in relevant standards, codes and legislative requirements
- sizes and areas of rooms, components, beams, bulkheads, ceilings and steps.

Relevant standards, codes and legislative requirements may include:

- Australian Communications Authority - cabling provider rules
- Australian Dangerous Goods Code
- Australian Standards
- Building Code of Australia
- building surveyor requirements
- client and other stakeholder requirements
- dispensations from fire and other regulatory authorities
- enterprise operating procedures
- federal/state/territory/local government authority legislation and regulations, including:
 - state or territory building legislation and regulations

- state or territory environmental regulations
- state or territory fire service legislation and regulations
- industry codes of practice
- international fire system and equipment standards
- plumbing codes
- product manufacturer's technical manuals and data sheets
- updates and interpretations of the Building Code of Australia
- workplace codes of practice.
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Unit Sector(s)

Not Applicable