



Australian Government

Department of Education, Employment and Workplace Relations

PRMFSSI07A Validate commissioning test data against performance documentation

Release: 1

PRMFSSI07A Validate commissioning test data against performance documentation

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit of competency covers the skills and knowledge required to review and validate commissioning test data against relevant performance documentation for fire safety systems and associated fire safety sub-systems.

These work functions are carried out without supervision.

Fire safety system inspectors are not expected to validate test data requirements for fire safety sub-system 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, prior to accreditation, demonstrate the relevant technical skills and knowledge of both the fire safety systems and their associated installation and maintenance standards relating to the systems for which accreditation is being sought.

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 Obtain and assess commissioning test data	1.1 Check that commissioning testing was conducted in accordance with the <i>relevant standards, codes and legislative requirements</i> and/or developed <i>test protocol</i> 1.2 Confirm that the <i>test protocol</i> used for commissioning testing is available and documented adequately 1.3 Ensure all <i>test data</i> was validated against relevant performance criteria 1.4 Check that causes of unacceptable performance and implemented corrective actions are identified and documented
2 Organise relevant commissioning test documentation	2.1 Collate relevant documentation produced for the installation, commissioning and test program used for the fire safety system and associated fire safety <i>sub-systems</i> 2.2 Confirm all modifications to original specifications and technical drawings and plans are documented and dated 2.3 Ensure all design, installation and commissioning certificates collated are signed by the person responsible for the appropriate activity

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 validate commissioning test data against performance 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

- Obtain and assess commissioning test data against documented performance criteria.
- Assess and confirm that commissioning testing was performed in accordance with relevant standards, codes and legislative requirements and/or followed a developed test protocol.
- Confirm that test data was validated against documented performance criteria.
- Check that causes of unacceptable performance and implemented corrective actions are identified and documented.
- Review commissioning documentation and identify non-compliance issues and implemented corrective actions.
- Obtain and collate fire safety system performance documentation and test data.

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 obtaining and assessing test data.
- Procedures for checking that test data was validated against documented performance criteria.
- Working knowledge of standards, codes and legislative requirements relevant to the inspection of fire safety systems.
- Working knowledge of building elements, chemistry, fluid dynamics and electrical design.
- Procedures for documenting test protocols.

Specific skills needed to achieve the performance criteria

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

- Recording and storing information.
- Active listening techniques.
- Effective telephone techniques.
- Organising, collecting and collating information.
- Confirming that test protocol and documentation for a specific sub-system is in accordance with Australian Standards.
- Collating and verifying completeness and compliance of all certificates for each sub-system inspected.
- Identifying and documenting unacceptable performances that are not in accordance with test protocol for that sub-system.
- Applying engineering knowledge skills to assess installation and commissioning data.
- Applying mathematical skills to assess test data.

- 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.

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|------------------------------|---|---|
| 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?		Not relevant to this unit.
How can information be collected, analysed and organised ?	2	Check that the fire safety system test program was conducted in accordance with the relevant standards, codes and legislative requirements and/or test protocol. Check that performance documentation identifies causes of unacceptable performance and corrective actions implemented. Collate commissioning performance documentation and test data. Ensure that test data was validated against relevant performance criteria.
How are activities planned and organised ?	1	Organise on-site inspection of commissioning performance documentation and test data.
How can teamwork be applied?		Not relevant to this unit.
How can the use of mathematical ideas and techniques be applied?	2	Check calculations to ensure that test data was validated against documented performance criteria.
How can problem-solving skills be applied?		Not relevant to this unit.
How can the use of technology be applied?	1	Access and follow up test data and performance documentation relevant to the commissioning of fire safety systems and associated fire safety sub-systems 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.

Developed test protocol may include:

- fire safety system design drawings

- fire system Australian Standards
- other fire safety system design documentation
- project specifications.

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
- low expansion foam systems
- emergency warning and intercommunication system
- portable fire extinguishers
- smoke and heat venting systems
- water mist systems
- wet chemical systems.

Relevant standards, codes and legislation 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.

Test data from fire safety system testing measurements and resultant outcomes may include:

- pipe work integrity (leak testing and hydrostatic testing)
- response times and sequence of events of system and equipment and their interface with other systems
- system and equipment input and output measurements
- system and equipment settings and tolerances
- water supply and system demand flow and pressures
- wiring capacity, protection and integrity.
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Unit Sector(s)

Not Applicable