

Field Engineering and Technology**Review of *Mechanical Engineering* unit standards**

Subfield	Domain	ID
Mechanical Engineering	Fire Detection and Alarm Systems	23258-23267
	Fire Protection Systems Technology	17708-17715
	Fixed Fire Protection Systems	9362, 9369, 9372, 9375, 9379-9382, 17727-17736, 18432-18434, 23587, 23588, 27524-27526
	Hand Operated Fire Fighting Equipment	9013, 9020, 23585, 23586

Competenz has completed the review of the unit standards listed above.

Date new versions published

October 2015

Planned review date

December 2020

Summary

These unit standards were due for review in 2011; however, the process was delayed as a result of the Targeted Review of Qualifications (TRoQ) process.

On commencement of the targeted review of the qualifications in October 2013, it was determined that the unit standard review could not be successfully completed until the structure and content of the proposed qualifications had been determined.

The Governance Group and Competenz set up Technical Groups to help with the review of the unit standards. The reviewed unit standards were endorsed by the TRoQ Governance Group in October 2014.

References were updated to reflect the current legislations, regulations, and industry standards.

Titles, purpose statements, entry information, outcome statements, evidence requirements, and range statements, where relevant, have been reworded to reflect changes in the sector, or to clarify and simplify.

Main changes

- Changes were made to the titles, entry information, outcome statements, evidence requirements, and range statements of the unit standards for clarity and to ensure alignment with relevant industry standards and regulations.
- Explanatory notes were updated.
- Credits and levels were updated to better reflect the content of the unit standards.
- 16 new unit standards were developed.
- Unit standard 18434 was replaced by four new unit standards.

The last date for assessment for immediately superseded versions of these standards is 31 December 2017. Results will not be accepted where the assessment date is after the last date for assessment of the superseded version of the standard.

Category C unit standards will expire at the end of December 2018

Detailed list of unit standards – classification, title, level, and credits

All changes are in **bold**.

Key to review category	
A	Dates changed, but no other changes are made - the new version of the standard carries the same ID and a new version number
B	Changes made, but the overall outcome remains the same - the new version of the standard carries the same ID and a new version number
C	Major changes that necessitate the registration of a replacement standard with a new ID
D	Standard will expire and not be replaced

Engineering and Technology > Mechanical Engineering > Fire Detection and Alarm Systems

ID	Title	Level	Credit	Review Category
23258	Demonstrate knowledge of fire detection and alarm systems and installation practices	3	20	B
23259	Demonstrate knowledge of checking and testing of fire detection and alarm systems	3	8 9	B
23260	Install fire detection and alarm systems	4	30 25	B
23261	Commission fire detection and alarm systems	4	30 25	B
23262	Check and test and fire detection and alarm systems Check, test, and inspect fire detection and alarm systems	3 4	20	B
23263	Check and test special hazard fire detection and alarm systems Check, test, and inspect special hazards fire detection and alarm systems	3 4	20	B
23264	Inspect and certify compliance of fire detection and alarm systems Inspect fire detection and alarm systems for compliance	5	20	B
23265	Service fire detection and alarm systems	4	30	B
23266	Demonstrate knowledge of fire detection and alarm system design	5	6 10	B
23267	Design fire detection and alarm systems	5	20	B
28813	Demonstrate knowledge of fire detection and alarm system components and installation practices	3	9	New
28814	Demonstrate knowledge, use, and care of tools and test equipment used in the fire detection and alarm industry sector	2	4	New

ID	Title	Level	Credit	Review Category
28815	Install fire detection and alarm system components under supervision	3	30	New
28816	Demonstrate knowledge of special hazards fire detection and alarm systems and installation practices	3	20	New
28817	Demonstrate knowledge of commissioning tests and procedures for special hazards fire detection and alarm systems	3	2	New
28818	Install special hazards fire detection and alarm systems	4	20	New
28819	Commission special hazards fire detection and alarm systems	4	20	New

Engineering and Technology > Mechanical Engineering > Fire Protection Systems Technology

ID	Title	Level	Credit	Review Category
17708	Inspect and test interconnected control and fire detection and alarm systems	4	12 30	B
17712	Demonstrate knowledge of organisations and documentation that impact on the fire protection industry	3	4	B
17713	Demonstrate knowledge of interconnected control and fire detection and alarm systems	4	6	B
17714	Demonstrate knowledge of inspection and testing of interconnected control and fire detection and alarm systems Demonstrate knowledge of inspection and testing of interconnected control and fire alarm systems	4	4	B
17715	Demonstrate knowledge of, and apply legislation for the fire protection industry Demonstrate knowledge of and apply legislation for the fire protection industry	5	8 4	B

Engineering and Technology > Mechanical Engineering > Fixed Fire Protection Systems

ID	Title	Level	Credit	Review Category
9362	Establish and disestablish site facilities for the installation of fire safety systems	4	4	B
9372	Commission fire sprinkler systems	4	20	B
9375	Service fire sprinkler systems	4	11	B
17727	Conduct routine tests and maintenance of special hazards fixed fire protection systems Conduct routine maintenance of special hazards fixed fire protection systems	4	5	B
17728	Conduct routine surveys of special hazards fixed fire protection systems Conduct surveys of special hazards fixed fire protection systems	4	5 10	B

ID	Title	Level	Credit	Review Category
17729	Demonstrate knowledge of maintenance of special hazards fixed fire protection systems Demonstrate knowledge of maintenance, testing, inspections, and surveys of special hazards fixed fire protection systems	4	4 7	B
17730	Demonstrate knowledge of maintenance of fire sprinkler systems Demonstrate knowledge of routine testing and maintenance of fire sprinkler systems	3	4 6	B
17731	Demonstrate knowledge of fire sprinkler systems and installation practices	3	10	B
17732	Demonstrate knowledge of special hazards fixed fire protection systems Demonstrate knowledge of special hazards and non-standard fixed fire protection systems	4	6	B
17734	Conduct routine tests and maintenance of fire sprinkler systems Conduct routine maintenance of fire sprinkler systems	3	4 20	B
17735	Conduct routine surveys of fire sprinkler systems Conduct routine inspections of fire sprinkler systems	4	4 20	B
18432	Fabricate pipe-work for fire sprinkler systems on site Fabricate and install pipe-work for fire sprinkler systems on site	3	6 20	B
18433	Install special hazards fixed fire protection systems	3 4	17 20	B
18434 28827 28828 28829 28830	Install fire sprinkler systems Fabricate and install pipe supports, hangers, braces, and brackets for fire sprinkler systems on site Install sprinkler heads Install pump sets for fire sprinkler systems Install valves, switches, and gauges for fire sprinkler systems	3 3 3 3 3	40 10 10 10 10	C
23587	Commission special hazards fixed fire protection systems	4	7	B
23588	Service special hazards fixed fire protection systems	4	11	B
27524	Design fixed fire protection systems	5	20 40	B
27525	Inspect and certify fixed fire protection systems Inspect fixed fire protection systems for compliance	5	20 40	B
27526	Supervise fire protection industry jobs/operations	5	30	B
28820	Conduct routine tests of fixed fire protection systems	3	20	New
28821	Inspect and test non-standard fixed fire protection systems	4	20	New

ID	Title	Level	Credit	Review Category
28824	Demonstrate knowledge of the underpinning principles of hydraulic design for fire sprinkler systems	4	4	New
28825	Conduct routine tests and inspections of special hazards fixed fire protection systems	4	10	New
28826	Read and interpret fire sprinkler, construction and services drawings	3	4	New
28831	Demonstrate knowledge of deluge and pre-action fire sprinkler systems and commissioning procedures	4	3	New
28832	Install deluge and pre-action fire sprinkler systems	4	20	New
28833	Service deluge and pre-action fire sprinkler systems	4	20	New
28834	Commission deluge and pre-action fire sprinkler systems	4	20	New

Engineering and Technology > Mechanical Engineering > Hand Operated Fire Fighting Equipment

ID	Title	Level	Credit	Review Category
9013	Survey buildings and select hand operated fire fighting equipment Survey for fire risks and select hand operated fire fighting equipment	4	23 25	B
9020	Demonstrate knowledge and use of hand operated fire fighting equipment	3	9 5	B
23585	Install and commission hand operated fire fighting equipment	3	20 25	B
23586	Maintain hand operated fire fighting equipment	3	20	B