

**Field      Engineering and Technology****Review of *Electrical Equipment in Hazardous Areas* unit standards**

## Current Classification

Subfield	Domain	ID
Electrical Engineering	Electrical Equipment in Hazardous Areas	17054-17056, 17058-17067, 17069-17074

## New Classification

Subfield	Domain	ID
Explosive Atmospheres	Electrical Apparatus in Explosive Atmospheres - Compliance	17055, 17069, 17074
	Electrical Apparatus in Explosive Atmospheres - Operations	17054, 17056, 17058, 17059, 17070-17073

The ElectroTechnology Industry Training Organisation (ETITO) has completed the review of the unit standards listed above.

**Date new versions published**

**May 2011**

**Planned review date**

**December 2016**

**Summary**

The above unit standards were reviewed in collaboration with industry representatives, other standard-setting bodies, and other key stakeholders, and updated in accordance with the latest version of AS/NZS 4761.1.2008, *Competencies for working with electrical equipment for hazardous areas (EEHA) Part 1 – Competency standards*. These unit standards are based on and directly aligned with AS/NZS 4761:2008.1 and incorporate the relevant essential skills and knowledge clauses identified in Section 3, and those in AS/NZS 4761:2008.2, *Competencies for working with electrical equipment for hazardous areas (EEHA) Part 2 – Guide to assessing competency* where appropriate. Further information regarding this alignment can be obtained from ETITO.

The unit standards are also aligned with the corresponding units of competency in the Australian UEE07 Electrotechnology Training Package Version 3.1, currently available at <http://ntis.gov.au>.

**Main changes**

- All standards have moved to the new subfield Explosive Atmospheres, and domains
  - Electrical Apparatus in Explosive Atmospheres - Operations; and
  - Electrical Apparatus in Explosive Atmospheres - Compliance.
- Explanatory notes were amended to update legislation, definitions, delivery methods, explosion-protection technique endorsements, and references.
- 15 new standards were developed.
- Standards 17060 -17067 were designated expiring and will not be replaced (category D).
- Standards 17054-17056, 17058, 17059, and 17070-17074 had title changes.

- Standards 17069 and 17071 decreased in credit value.
- Standards 17054, 17070 and 17073 increased in credit value.
- Standards 17074, 17056, 17058, 17059, and 17073 decreased in level.
- Standard 17070 increased in level.

### Category D unit standards will expire at the end of December 2011

#### Impact on existing organisations with consent to assess

There is no impact on existing consent to assess. There are 10 providers nationally with consent to assess for some of the retained unit standards. Providers can only retain consent to assess for the individual unit standards. Consent to assess will not be extended to the new subfield.

#### Impact on Consent and Moderation Requirements (CMR)

CMR 0003 has undergone revision to reflect the changes made to the classifications and standards.

#### Impact on registered qualifications

Key to type of impact	
<b>Affected</b>	The qualification lists a reviewed classification (domain or subfield) in an elective set The qualification lists a standard that has changes to level or credits The qualification lists a C or D category standard
<b>Not materially affected</b>	The qualification lists a standard that has a new title The qualification lists a standard that has a new classification

The following ETITO qualification is affected by the outcome of this review and will be updated when it is next reviewed.

Ref	Qualification Title	ID
0410	National Certificate in Industrial Measurement and Control (Level 4)	<b>17054</b>

The following table identifies qualifications developed by another SSB that are impacted by the outcome of this review. The SSB has been advised that the qualifications require revision. The standards that generated the status *Affected* are listed in **bold**.

Ref	Qualification Title	ID	SSB Name
0401	National Certificate in Gas Network Operations (Gas Pressure Control) (Level 4)	17054	NZ Extractive Industries Training Organisation
0804	National Diploma in Extractive Industries (Mining Electrical Engineering Hazardous Areas) (Level 5) with an optional strand in Underground Extraction	17060	
0805	National Certificate in Extractive Industries (Mining Electrical Engineering Non-hazardous Areas) (Level 5) with an optional strand in Underground Extraction	17054, 17055, 17058-17060, 17071, 17073, 17074	
1576	National Certificate in Gas Transmission Operations (Mechanical) (Level 3)	17054	
1578	National Certificate in Gas Transmission Operations (Instrumentation and Electrical) (Level 3)	17054	
1579	National Certificate in Gas Transmission Operations (Instrumentation and Electrical) (Level 4)	17056, 17058, 17059	

### 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 > Electrical Engineering > Electrical Equipment in Hazardous Areas

### Engineering and Technology > Explosive Atmospheres > Electrical Apparatus in Explosive Atmospheres - Compliance

ID	Title	Level	Credit	Review Category
17055	Ensure the safety of hazardous areas <b>Manage compliance of hazardous areas</b>	5	3	B
17069	Classify hazardous areas	6	9 4	B
17074	Inspect visually existing electrical installations in hazardous areas <b>Conduct visual inspection of existing explosive atmospheres installations</b>	5 4	2	B
24980	<b>Conduct audit of hazardous areas installations</b>	5	3	New
24981	<b>Assess the fitness-for-purpose of explosive atmospheres legacy explosion-protected apparatus</b>	6	8	New
24985	<b>Verify compliance of repaired reeling, trailing, and flexible electrical cables</b>	4	1	New
24987	<b>Establish, arrange and verify overhaul and repair of explosion-protected apparatus</b>	5	5	New

Engineering and Technology > Electrical Engineering > Electrical Equipment in Hazardous Areas

**Engineering and Technology > Explosive Atmospheres > Electrical Apparatus in Explosive Atmospheres - Operations**

ID	Title	Level	Credit	Review Category
17054	Report on the integrity of explosion-protected electrical equipment in hazardous areas <b>Report on the integrity of explosion-protected electrical apparatus in explosive atmospheres</b>	3 3	2 3	B
17056	Install explosion-protected electrical equipment and wiring systems in hazardous areas <b>Install explosion-protected electrical apparatus and wiring systems in hazardous areas</b>	5 4	9	B
17058	Maintain electrical equipment in hazardous areas <b>Maintain apparatus in explosive atmospheres</b>	5 4	9	B
17059	Attend to breakdowns of electrical equipment in hazardous areas <b>Attend to breakdowns in explosive atmospheres</b>	5 4	9	B
17070	Develop and manage maintenance programmes for hazardous area electrical equipment <b>Develop and manage maintenance programmes for explosive atmospheres installations</b>	5 6	7 8	B
17071	Design electrical installations in hazardous areas <b>Plan electrical installations for explosive atmospheres</b>	5	12 8	B
17072	Design explosion-protected electrical systems for hazardous areas <b>Design explosion-protected electrical systems and installations</b>	6	12	B
17073	Test electrical installations in hazardous areas <b>Conduct testing of electrical apparatus in explosive atmospheres installations</b>	5 4	2 4	B
24976	<b>Use and maintain the integrity of portable gas detection devices</b>	4	2	New
24977	<b>Install fixed gas detection apparatus</b>	4	2	New
24978	<b>Design gas detection systems and installations</b>	6	8	New
24979	<b>Carry out overhaul and repair of explosion-protected apparatus</b>	4	2	New
24982	<b>Repair reeling, trailing, and flexible cables</b>	4	2	New
24983	<b>Test reeling, trailing, and flexible cables</b>	4	1	New
24984	<b>Inspect and fit plugs/couplers for reeling, trailing, and flexible cables</b>	4	1	New
24986	<b>Disconnect and reconnect explosion-protected apparatus connected to low voltage supply</b>	4	2	New
26739	<b>Demonstrate introductory underpinning knowledge of electrical apparatus in explosive atmospheres</b>	4	5	New
26740	<b>Demonstrate and apply intermediate underpinning knowledge of electrical apparatus in explosive atmospheres</b>	4	5	New

<b>ID</b>	<b>Title</b>	<b>Level</b>	<b>Credit</b>	<b>Review Category</b>
26741	Demonstrate underpinning knowledge of gas detection apparatus in explosive atmospheres	4	4	New
26742	Demonstrate underpinning knowledge of permanently-installed gas detection apparatus in explosive atmospheres	4	4	New
26743	Response check, calibrate, and maintain fixed gas detection apparatus	4	1	New

Engineering and Technology > Electrical Engineering > Electrical Equipment in Hazardous Areas

<b>ID</b>	<b>Title</b>	<b>Level</b>	<b>Credit</b>	<b>Review Category</b>
17060	Overhaul and repair explosion-protected electrical equipment employing Ex d protection	5	9	D
17061	Overhaul and repair explosion-protected electrical equipment employing Ex e protection	5	9	D
17062	Overhaul and repair explosion-protected electrical equipment employing Ex i protection	5	9	D
17063	Overhaul and repair explosion-protected electrical equipment employing Ex n protection	5	9	D
17064	Overhaul and repair explosion-protected electrical equipment employing DIP protection	5	9	D
17065	Overhaul and repair explosion-protected electrical equipment employing Ex p protection	5	9	D
17066	Overhaul and repair explosion-protected electrical equipment employing mixed protection techniques	5	9	D
17067	Design and develop modifications to explosion-protected electrical equipment	6	5	D