



ExMC/812/R  
December 2012

**INTERNATIONAL ELECTROTECHNICAL COMMISSION SYSTEM FOR  
CERTIFICATION TO STANDARDS RELATING TO EQUIPMENT FOR USE IN  
EXPLOSIVE ATMOSPHERES (IECEx SYSTEM)**

**Title: Re-assessment Report for the continued acceptance of *TestSafe Australia* as  
an Accepted Certification Body (ExCB)**

**To: Members of the IECEx Management Committee, ExMC**

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**Introduction**

In accordance with the 5 year re-assessment plan for the surveillance and monitoring of bodies within the IECEx System, the following document contains the IECEx Re-assessment Report ***TestSafe Australia*** as an Accepted Certification Body (ExCB)

This report is issued for endorsement during the 2013 Fortaleza, Brazil Meeting.

*Chris Agius*  
**IECEx Secretariat**

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# IECEX ASSESSMENT REPORT FOR TESTSAFE Australia (IECEX Certification Body ExCB)

Type of Assessment: (please mark)

Initial Assessment for Candidate ExCB

Re-Assessment of ExCB                      02 03 and 04                      X

Scope Extension of ExCB

## 1. OBJECT AND FIELD OF APPLICATION

**1.1. Country:**  
AUSTRALIA

**1.2. Name of Accepted ExCB**  
TestSafe Australia

**1.3. Members of the Assessment Team**  
IECEX Team Leader:    Thierry Houeix  
Expert Assessor:        Herbert Peters  
Observers:                Chris Agius

**1.4. Place and Date of Assessment**  
919 Londonderry Road, Londonderry, NSW, 2753, Australia  
21-23 June 2011

### 1.5. Assessment References

- i) IECEx 02 - IECEx 02 Scheme rules of procedure
- ii) Ex OD 003 - IECEx Assessment procedures
- iii) Ex OD 005-1 Quality System requirements for manufacturers
- iv) Ex OD 009 - Issuing of CoCs, ExTRs and QARs
- v) Ex OD 025 - Management of assessment and surveillance programs for manufacturers
- vi) ISO/IEC Guide 65:1996
- vii) Ex OD 17 Drawing and documentation guidance
- viii) IECEx 03 - Ex service facility certification
- ix) Ex OD 016 Assessment Procedures for IECEx 03 Certification Bodies
- x) Ex OD 015 Technical Requirements for IECEx Service Facilities involved in repair, overhaul and modification of Ex equipment
- xi) Ex OD 014 Quality Management System requirements for IECEx Service Facilities
- xii) IECEx 04 - IECEx Conformity Mark Licensing System – Regulations
- xiii) Ex OD 022 Rules and Procedures for the granting of Licenses to issue and use the IECEx Conformity Mark

xiv) Ex OD 023 Terms and Conditions for use of the IECEx Conformity Mark

### 1.6. Scope of Application

Number	Title
60079-0 Edition 5	Explosive atmospheres - Part 0: Equipment - General requirements
60079-1 Edition 6	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
60079-2 Edition 5	Explosive atmospheres - Part 2: Equipment protection by pressurized enclosure «p»
60079-5 Edition 3	Explosive atmospheres - Part 5: Equipment protection by powder filling «q»
60079-6 Edition 3	Explosive atmospheres - Part 6: Equipment protection by oil immersion «o»
60079-7 Edition 4	Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
60079-11 Edition 5	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
60079-13 Edition 1.0	Explosive atmospheres - Part 13: Equipment protection by pressurised room
60079-15 Edition 4	Electrical apparatus for explosive gas atmospheres - Part 15: Construction, test and marking of type of protection "n" electrical apparatus
60079-18 Edition 3	Electrical apparatus for explosive gas atmospheres - Part 18: Construction, test and marking of type of protection encapsulation "m" electrical apparatus
60079-25 Edition 2	Electrical apparatus for explosive gas atmospheres - Part 25: Intrinsically safe systems
60079-26 Edition 2	Explosive atmospheres - Part 26: Equipment with equipment protection level (EPL) Ga
60079-27 Edition 2	Explosive atmospheres – Part 27: Fieldbus intrinsically safe concept (FISCO)
60079-31 Edition 1	Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure "t"
60079-35-1 Edition 1	Explosive atmospheres – Caplights (replacement for 62013-1)
61241-0 Edition 1	Electrical apparatus for use in the presence of combustible dust - Part 0: General requirements
61241-1	Part 1: Protection by enclosures 'tD'
61241-1-1	Part 1-1: Electrical apparatus protected by enclosures and surface temperature limitation - Specification for apparatus
61241-4	Electrical apparatus for use in the presence of combustible dust

Number	Title
Edition 1	Part 4: Protection by enclosures "tD"
61241-11 Edition 1	Electrical apparatus for use in the presence of combustible dust – Part 11: Protection by intrinsic safety 'pD'
61241-18 Edition 1	Electrical apparatus for use in the presence of combustible dust Part 18: Protection by encapsulation "mD"
62013-1 Edition 2	Caplights for use in mines susceptible to firedamp Part 1: General requirements - Construction and testing in relation to the risk of explosion

### 1.7. Accepted ExCB Persons Interviewed

Name	Position
Ron Keelty	Director, TestSafe
Ujen Singh	Manager, Quality & Certification
Gordana Ostojic	Manager, Electrical High Current Branch
Ajay Maira	Manager, Electrical Low Current Branch
Adrian Rietdijk	Quality & Compliance Officer
John Watt	Audit & Compliance Officer
Debbie Wouters	Assistant Project / Marketing Officer
James Zhao	Senior Engineer LCB
James Bes	Senior Technical Officer
Daniel Ling	Electrical Engineer
Russel Ashley	Audit & Compliance Officer
Suresh Khatav	Audit & Compliance Officer

### 1.8. Legal Entity of the Accepted ExCB

TestSafe is a commercial unit of WorkCover NSW, which is the health and safety regulator of the state of New South Wales. TestSafe does not have its own business identity, but rather operates under the auspices of WorkCover.

### 1.9. Associated Testing Laboratories

TestSafe Australia Industry & Investment NSW - Mine Safety Technology Centre (MSTC) for intrinsic safety

### 1.10. Associated Certification Functions

The commercial activities related to Ex activity are self-financing through the fees required to its customers.

### 1.11. National Marks and Certificates

TestSafe is a Certification Body and Testing Laboratory for the ANZEx Scheme. TestSafe is also an IECEx Mark license issuing ExCB

### 1.12. Financial Support

TestSafe operates on a customer fee for service arrangement, and is funded by WorkCover NSW. TestSafe is a business unit of WorkCover NSW, the State authority

for occupational health and safety, from which any shortfall in funding from current operations is obtained.

#### 1.13. **History**

TestSafe, formerly Londonderry Occupational Safety Centre (LOSC) was created to engage in research and testing in support of the NSW coal mining industry. TestSafe has been an Ex certification body from around 2003 and issued its first ExTR in 2003.

#### 1.14. **Standards Accepted**

See clause 1.6 of this report

#### 1.15. **National Differences to IEC Standards**

National differences to IEC standards are listed in the latest version of the IECEx Scheme Bulletin.

## 2. ORGANISATION

### 2.1. **Names, Titles and Experience of the Senior Executives**

Name	Title	Experience
Ron Keelty	Director	Management, Occupational health and safety
Ujen Singh	Manager, Quality & Certification	9 years
Ajay Maira	Manager, Electrical Low Current Branch	15 years
Gordana Ostojic	Manager, Electrical High Current Branch	18 years

### 2.2. **Name, Title and Experience of the Quality Management Representative**

Name	Title	Experience
Ujen Singh	Manager, Quality & Certification	9 years

### 2.3. **Name and Title of Nominated Principal Contact**

Name	Title	Comments
Ujen Singh	Manager, Quality & Certification	

### 2.4. **Name and Title of Signatories for Certification**

Name	Title	Comments
Ujen Singh	Manager, Quality & Certification	Since 2002
Ajay Maira	Manager, Electrical Low Current Branch	Since 1999
Gordana Ostojic	Manager, Electrical High Current Branch	Since 1997

### 2.5. Other Employees in ExCB activity

Name	Title	Responsibility and Experience in Ex
Adrian Rietdijk	Audit & Compliance Officer	Quality auditor, 5 years
Suresh Khataav	Electrical Engineer	Independent reviewer, 3 years
John Watt	Audit & Compliance Officer	Quality auditor, 26 years Independent reviewer, 12 years
Henry Huynh	Senior Electrical Engineer	Quality auditor, 5 years Independent reviewer, 5 years
Russell Ashley	Audit & Compliance Officer	Quality auditor, 7 years Independent reviewer, 12 years
Kent Mei	Electrical Engineer	Independent reviewer, 6 years
Gerry Gonzalez	Senior Technical Officer	Independent reviewer, 12 years
James Zhao	Senior Electrical Engineer	Quality auditor, 6 years Independent reviewer, 6 years
Daniel Ling	Electrical Engineer	Independent reviewer, 5 years
Lional Rajasekera	Electrical Engineer	Independent reviewer, 6 years
David Fraser	Electrical Engineer	Independent reviewer, 4 years
James Bes	Senior Technical Officer	Independent reviewer, 9 years

### 2.6. Organizational Structure

Refer to TestSafe Organisational Chart in Annex 1

### 2.7. Administration (including Indemnity Insurance)

Conducted by TestSafe staff, supported by Finance & Admin Unit that reports to WorkCover Head Office Finance Indemnity insurance provided through NSW Treasury Management Fund covers certification and is valid until no expiry attached

## 3. RESOURCES

Resources are allocated in terms of buildings, equipment, services and trained personnel by the Ex Managers. A business plan is produced from which budgets are set and reviewed quarterly during the Directors meetings. Competent staff are ensured by an annual appraisal system which identifies future training needs.

## 4. COMMITTEES / Governing Board / Appeals / Advisory Board

The composition and terms of reference of the Certification Committee are given in GGP020\_5 document. The committee comprises representatives of manufacturer, user, Conformity Assessment interests (certification scheme) and NSW Regulator (governmental) interests with no single interest predominating. Meetings are held on an annual basis and the minutes for 2009 and 2010 were seen. There is a procedure for handling appeals, though none has been made during the past five years.

## 5. CERTIFICATION OPERATIONS

### 5.1. National Approval/Certification Methods

TestSafe operates in the two national Ex certification schemes, the AUSEx Scheme which is a Type 1 scheme and the ANZEx scheme which is a Type 5). The ANZEx scheme is very close to the IECEx in structure and operation. The standards and methods used for the various conformity assessment activities do, relate closely to those employed within IECEx.

### 5.2. Certification Policy

The Quality Manual contains a quality policy does not make directly reference to product certification. Further aspects related to certification policy are covered in procedures GP026 - TestSafe Certification Policies, GGP030 – Certification Manual – IECEx, and were seen to be in conformity with the requirements of ISO/IEC Guide 65 IECEx 02 and IECEx 03.

### 5.3. Application for Certification

The applicant can make an application for certification by using the application forms which are available on the TestSafe website. Once an application has been received, a quote or estimate and lead-time are provided to the applicant.

### 5.4. Certification Decision

Elec Work instruction EWI002, responsibility of Quality & Certification Manager, based on Certificate Recommendation Officer, conducted via Certificate Recommendation Form. This document meets the IECEx system requirements.

### 5.5. Suspension and Cancellation of Certificates

The suspension of certificates rules is well defined in GGP030 document and there is specific reference of how this relates to the IECEx System.

## 6. STATISTICS

### 6.1. Certificates Issued

Number of certificates issued under the IECEx, national or regional schemes in the preceding four years for each type of protection:

Standards	Title	Number of issued certificates				Total  Part 0 included in numbers below
		2008	2009	2010	2011	
60079-11	Intrinsic Safety	41	51	40	35	167
60079-18	Encapsulation	2	2	4	1	9
62013	Cap lights	0	0	0	0	0
60079-1	Flameproof	21	24	32	12	89
60079-2	Pressurization	0	0	0	1	1

Standards	Title	Number of issued certificates				Total
		2008	2009	2010	2011	
60079-7	Increased safety	2	2	3	2	9
60079-15	Non-sparking	3	1	2	1	7
60079-31 and 61241-1	Dust protected	2	2	2	0	6

## 7. DOCUMENTATION

### **7.1. Quality Manual**

TestSafe has a comprehensive quality manual supported by other procedural documents, which refer to ISO 9001, ISO/IEC 17025 standards and ISO/IEC Guide 65. This document meets the IECEx system requirements

### **7.2. Procedures**

TestSafe has a very comprehensive range of procedures covering all aspects of the testing operations that were audited as part of this assessment. Where applicable each procedure has with it an associated test sheet for completion by the staff. This document meets the IECEx system requirements

### **7.3. Work Instructions**

See above

### **7.4. Records**

All records are maintained in accordance with GGP035-Records control procedure. The records are kept digitally on TRIM system and also in paper form in accordance with NSW government state record-keeping regulations. This was found to comply with IECEx requirements.

### **7.5. Document Change Control**

Document change control is affected by having the master document as the digital document on the intranet in accordance with GGP032-Documents Control procedure. This document meets the IECEx system requirements

## 8. CONFIDENTIALITY

All employees, contractors and members of the TestSafe Certification committees sign confidentiality agreements. Examples of these were sighted by the team.

There is a system of security control at the main entrance gate and entrance to buildings is controlled by key or, in the case of newer buildings, by key pad. GGP024-Procedure for confidentiality and conflict of interest was found to comply with ISO/IEC Guide 65.

## 9. PUBLICATIONS

TestSafe publishes information on the IECEx system on their website [http://www.testsafe.com.au/international\\_certification.asp](http://www.testsafe.com.au/international_certification.asp).

Application form can also be found on their website.



## 10. NATIONAL ACCREDITATION

TestSafe is accredited for product certification against ISO Guide 65 by JAS-ANZ for the [ANZEx Scheme](#). See Annex 2.

## 11. RECOGNITION AND AGREEMENTS

TestSafe have a number of agreements including ITACS in Australia, CNEx in China, Sipai in China, SABS in South Africa, MSTC, AU, FM Global in US and MSHA in US.

## 12. INTERNAL AUDIT AND PERIODIC MANAGEMENT REVIEW

Internal audits are done once a year for each type of operation. The last internal audit for IECEx was carried out on July-August 2010 was reviewed. Internal Audit procedure-GGP034.

The Management review is defined in the Quality Manual, is also conducted annually.

## 13. SUBCONTRACTING, USE OF OTHER LABS AND USE OF OTHER LOCATIONS

Subcontracting is covered in GGP030 document which relates principally to the ExTL activity. The procedures state that for IECEx any subcontracting will be done to only another IECEx ExTL.

## 14. TRAINING

All staff employed are selected for qualifications and/or experience relevant to their responsibilities.

Regularly there is training of people in the ExCB and ExTL on the operations, outcome of audits, revised standards and procedures related to IECEx. An example of a comprehensive training session presentation was shown.

There is a competency matrix for all Activity branches which include the ExCB and the ExTL tasks.

## 15. ASSESSMENT OF MANUFACTURERS AND ISSUE OF QARS

Procedure GGP028 addresses assessments of manufacturers. The report format is addressed in document EPF029\_11 and includes the all requirements from the IECEx Scheme requirements.

For IECEx certification scheme a set of documented procedures is in place to enable surveillance to be carried out in accordance with the criteria of the certification system. The requirements for manufacturing surveillance activities (including initial and on-going inspection of product during manufacture, audit of quality system and audit of

products) are detailed within the relevant scheme rules and in relevant GGP028 procedures.

A number of TestSafe QAR files were reviewed and seen to be satisfactory.

## 16. COMPLAINTS AND APPEALS (Including appeals to IECEx)

They have a general process in TestSafe from external complaints defined in GGP022-Appeals procedure and in CSWI002-Customer Feedback. This covers the complaints mechanism requirements of the ExCB and ExTL and found to comply with IECEx requirements.

## 17. SPECIAL FACTS TO BE NOTED

### 17.1. *Supporting Documentation*

Copies of additional supporting information for this assessment have been provided to the applicant and the IECEx Secretariat. These include:

- Details of issues raised and how these have been resolved
- Checklist for ISO/IEC Guide 65

### 17.2. *Certificate Files Reviewed*

A review was made of files for the following certificates:

1. IECEx TSA 07.0060X issue No.:1
2. IECEx TSA 11.0022X issue No.:0
3. AU/TSA/ExTR10.0012/00
4. AU/TSA/ExTR10.0061/00
5. AU/TSA/ExTR10.0028/00
6. AU/TSA/QAR05.0002/00
7. AU/TSA/QAR06.0003/00
8. AU/TSA/QAR07.0001/00
9. IECEx TSA S0001 issue 1
10. IECEx TSA S0002 issue 0
11. Licenses No.: TSA 001 and TSA 002

## 18. COMMENTS (Including issues found during assessment)

There were some issues during assessment that were subsequently resolved to the satisfaction of the assessment team. These issues were to do with:

- Subcontract of manufacturer audit
- Role of the decision maker
- Criteria of the auditor for IECEx 02 and IECEx 03
- Some QAR were out of date
- Control of use of the IECEx mark during surveillance audit

All issues were resolved to the satisfaction of the assessment team.



## **19. RECOMMENDATION**

Based on the assessment performed on 21-23 June 2011, TestSafe is recommended for continued acceptance in the IECEx system as an IECEx Certification Body (ExCB) for the Equipment scheme (IECEX 02) according to the scope of the standards listed in this document, for the Service Facilities scheme (IECEX 03) and for the IECEx Mark of Conformity delivery (IECEX 04).

Thierry Houeix  
Lead Assessor

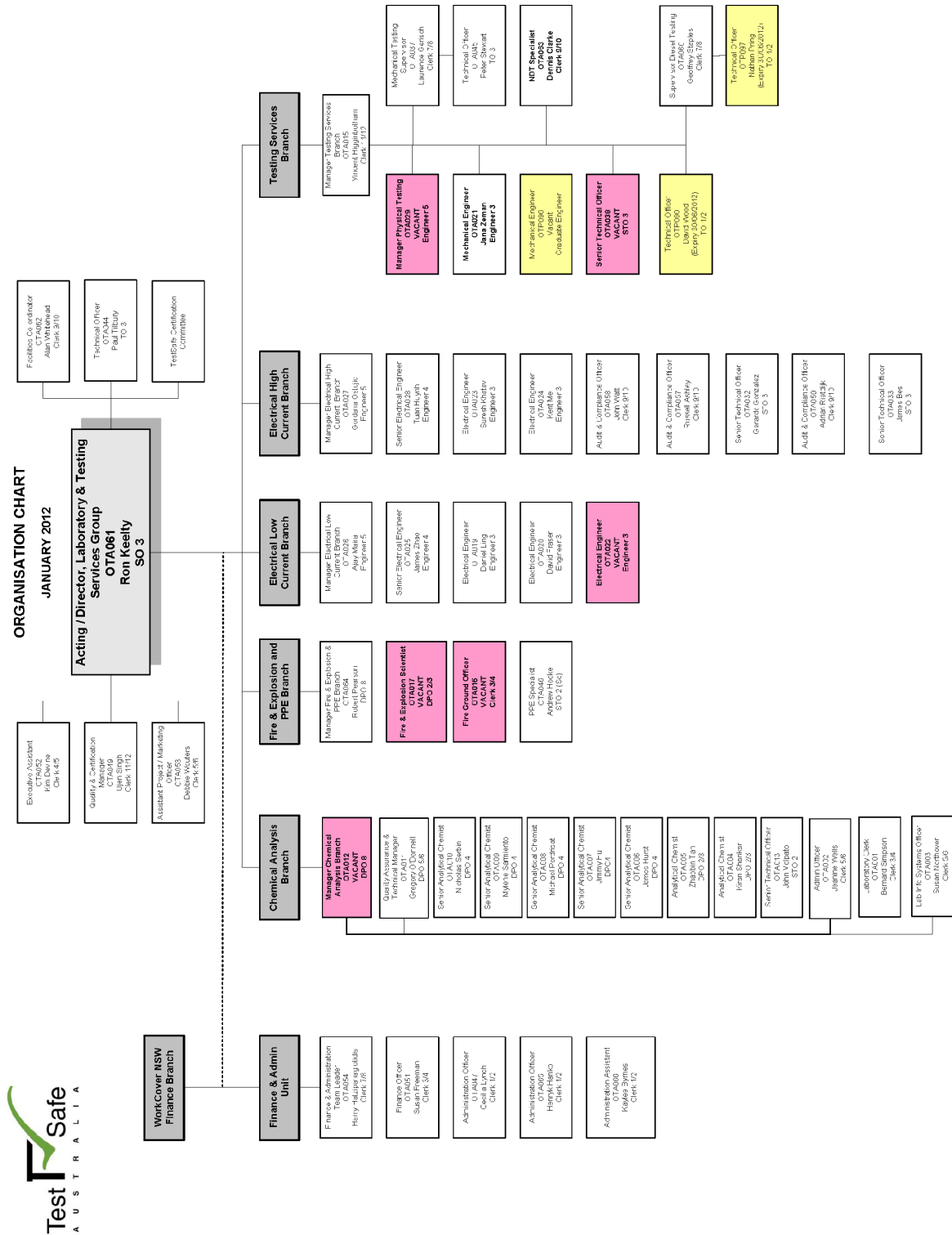
Herbert Peters  
Expert Assessor

Date: 2012-06-19

### **List of Annexes:**

1. Overall Organization Chart of TestSafe
2. JAS-ANZ Accreditation Schedule

# Annexe 1





JOINT ACCREDITATION SYSTEM OF AUSTRALIA AND NEW ZEALAND

## **ACCREDITATION SCHEDULE**

### **ORGANISATION**

TestSafe Australia

### **CERTIFICATE NUMBER**

Z2221100AS

### **LOCATIONS COVERED BY ACCREDITATION**

919 Londonderry Road  
Londonderry NSW 2753

### **ACCREDITATION STANDARDS**

JAS-ANZ Procedure 15 - General requirements for bodies operating product certification systems. Incorporating ISO/IEC Guide 65.

### **ISSUE STATUS**

Issue: 5, Dated: 5 November 09

Signature:.....

 S. KEEZING  
Chief Executive

Date:..... 5 NOVEMBER 2009



JOINT ACCREDITATION SYSTEM OF AUSTRALIA AND NEW ZEALAND

## SCOPE OF ACCREDITATION

### ANZSIC CODES

### TITLE

7 8 2 9 Technical Services n.e.c.

### Scheme Descriptions:

1. **MP 69** - Explosion-protected electrical equipment - Certification scheme - Policy
2. **MP 87** – Australian/New Zealand Certification Scheme for explosion-protected electrical equipment (ANZEx Scheme) – Basic Rules and procedures

### Product Standards

AS 1299	Electrical equipment for coal mines - Flameproof restrained plugs and receptacles
AS 1300	Electrical equipment for coal mines - Bolted flame-proof cable coupling devices
AS 1482	Electrical equipment for explosive atmospheres- Protection by ventilation – Type of protection v
AS 1681	Electrically heated ovens in which flammable volatiles occur Type 1 Ovens
AS 1826	Electrical equipment for explosive atmospheres - Special protection - Type of protection s
AS 1828	Electrical equipment for explosive atmospheres- Cable gland
AS 1915	Electrical equipment for explosive atmospheres – Battery-operated vehicles
AS/NZS 2081	Electrical equipment for coal and shale mines-Electrical protection devices Part 1: General requirements Part 2: Earth-continuity monitoring devices Part 3: Earth-leakage protection systems for use on earth-fault current limited systems (IT systems) Part 4: Lockout earth-fault protection devices Part 5: Earth-fault current limiters



**JOINT ACCREDITATION SYSTEM OF AUSTRALIA AND NEW ZEALAND**

- AS 2229**                      **Electrical equipment for explosive atmospheres - Electrical systems of dispensing equipment**  
**Part 1: Flammable liquid dispensing equipment**  
**Part 2: Liquefied petroleum gas dispensing equipment**
- AS 2268**                      **Electrostatic paint and powder sprayguns for explosive atmospheres**
- AS 2480**                      **Electrical equipment for explosive atmospheres - Flameproof enclosure - Type of protection d**
- AS/NZS 4871**                **Electrical equipment for coal mines, for use underground –**  
**Part 1: General requirements**  
**Part 2: Distribution, control and auxiliary equipment**  
**Part 3: Substations**  
**Part 4: Mains powered electric mobile machines**  
**Part 5: Battery powered electrical mobile machines**
- EN 13980**                      **Potentially explosive atmospheres. Application of quality systems.**
- NZS 6109**                      **Electrical equipment for explosive atmospheres - Electrical systems of dispensing equipment**  
**Part 1: Flammable liquid dispensing equipment**  
**Part 2: Liquefied petroleum gas dispensing equipment**

Australian Standard	IEC Standard	CENELEC Standard	Factory Mutual Standard
<b>AS 2236:</b> Electrical Equipment for Explosive Atmospheres - Dust-Excluding Ignition-Proof (DIP) Atmospheres  AS/NZS 61241-1-1 1999-06 Electrical apparatus for use in the presence of combustible dust Part 1-1: Electrical apparatus protected by enclosures and surface temperature limitation - Specification for apparatus	<b>IEC61241-1-1:</b> Electrical Apparatus for Use in the Presence of Combustible Dust - Part 1: Electrical Apparatus Protected by Enclosures - Section 1: Specification for Apparatus		
<b>AS 2275.1:</b> Combustible Gas Detection Instruments for use in Explosive Atmospheres General Requirements for Explosion Protection of Electrical Apparatus and Systems  <b>AS 2275.2:</b> Combustible Gas Detection Instruments for use in Explosive Atmospheres Performance Requirements			



## JOINT ACCREDITATION SYSTEM OF AUSTRALIA AND NEW ZEALAND

<p><b>AS/NZS 61779-1:</b> Electrical Apparatus for the Detection and Measurement of Flammable Gases Part 1: General Requirements and Test Methods</p> <p>Part 2: Performance Requirements for Group I Apparatus Indicating a Volume Fraction Up to 5% Methane in Air</p> <p>Part 3: Performance Requirements for Group I Apparatus Indicating a Volume Fraction Up to 100% Methane in Air</p> <p>Part 4: Performance Requirements for Group II Apparatus Indicating a Volume Fraction Up to 100% Lower Explosive Limit</p> <p>Part 5: Performance Requirements for Group II Apparatus Indicating a Volume Fraction Up to 100% Gas</p>	<p><b>IEC 61779-1:</b> Electrical Apparatus for the Detection and Measurement of Flammable Gases Part 1: General Requirements and Test Methods</p> <p>Part 2: Performance Requirements for Group I Apparatus Indicating a Volume Fraction Up to 5% Methane in Air</p> <p>Part 3: Performance Requirements for Group I Apparatus Indicating a Volume Fraction Up to 100% Methane in Air</p> <p>Part 4: Performance Requirements for Group II Apparatus Indicating a Volume Fraction Up to 100% Lower Explosive Limit</p> <p>Part 5: Performance Requirements for Group II Apparatus Indicating a Volume Fraction Up to 100% Gas</p>	<p><b>EN 50054:</b> Electrical Apparatus for the Detection and Measurement of Combustible Gases General Requirements and Test Methods</p> <p><b>EN 50055:</b> Electrical Apparatus for the Detection and Measurement of Combustible Gases - Performance Requirements for Group I Apparatus Indicating Up to 5% (V/V) Methane in Air</p> <p><b>EN 50056:</b> Electrical Apparatus for the Detection and Measurement of Combustible Gases Performance Requirements for Group I Apparatus Indicating up to 100% (V/V) Methane</p> <p><b>EN 50057:</b> Electrical Apparatus for the Detection and Measurement of Combustible Gases Performance Requirements for Group II Apparatus Indicating up to 100 % Lower Explosive Limit</p> <p><b>EN 50058:</b> Electrical Apparatus for the Detection and Measurement of Combustible Gases Performance Requirements for Group II Apparatus Indicating up to 100 % (v/v) Gas</p>	<p><b>FM Class Nos. 6310 &amp; 6330:</b> Combustible Gas Detectors</p>
<p><b>AS 2380.1:</b> Electrical Equipment for Explosive Atmospheres - Explosion-Protection Techniques Part 1: General Requirements</p> <p><b>AS/NZS 60079-0:</b> Electrical Apparatus for Explosive Gas Atmospheres - Part 0: General Requirements</p>	<p><b>IEC60079-0:</b> Electrical Apparatus for Explosive Gas Atmospheres - Part 0: General Requirements</p>	<p><b>EN50014:</b> Electrical Apparatus for Potentially Explosive Atmospheres General Requirements</p>	<p><b>FM Class No. 3600:</b> Electrical Equipment for Use in Hazardous (Classified) Locations General Requirements</p>
<p><b>AS 2380.2:</b> Electrical Equipment for Explosive Atmospheres - Explosion-Protection Techniques Part 2: Flameproof Enclosure d</p> <p><b>AS/NZS 60079-1:</b> Electrical Apparatus for Explosive Gas Atmospheres Part 1: Flameproof Enclosures "d"</p>	<p><b>IEC60079-1:</b> Electrical Apparatus for Explosive Gas Atmospheres Part 1: Flameproof Enclosures "d"</p>	<p><b>EN50018:</b> Electrical Apparatus for Potentially Explosive Atmospheres: Flameproof Enclosure 'd'</p>	<p><b>FM Class No. 3615:</b> Explosion Proof Electrical Equipment General Requirements</p>
<p><b>AS 2380.4:</b> Electrical Equipment for Explosive Atmospheres - Explosion-Protection Techniques Part 4: Pressurised Rooms or Pressurised Enclosures</p> <p><b>AS/NZS 60079-2:</b> Electrical Apparatus for Explosive Gas Atmospheres Part 2: Pressurised enclosures 'p'</p>	<p><b>IEC60079-2:</b> Electrical Apparatus for Explosive Gas Atmospheres Part 2: Pressurised enclosures 'p'</p>	<p><b>EN50016:</b> Electrical Apparatus for Potentially Explosive Atmospheres: Pressurised Apparatus 'p'</p>	<p><b>FM Class No. 3620:</b> Purged and Pressurised Electrical Equipment</p>





## JOINT ACCREDITATION SYSTEM OF AUSTRALIA AND NEW ZEALAND

<b>AS/NZS 60079-5</b> : Electrical Apparatus for Explosive Gas Atmospheres Part 5: Powder filling	<b>IEC 60079-5</b> : Electrical Apparatus for Explosive Gas Atmospheres Part 5: Powder filling		
<b>AS/NZS 60079-6</b> : Electrical Apparatus for Explosive Gas Atmospheres Part 6: Oil-immersion	<b>IEC 60079-6</b> : Electrical Apparatus for Explosive Gas Atmospheres Part 6: Oil-immersion		
<b>AS 2380.6</b> : Electrical Equipment for Explosive Atmospheres - Explosion-Protection Techniques Part 6: Increased Safety e  <b>AS/NZS 60079-7</b> : Electrical Apparatus for Explosive Gas Atmospheres Part 7: Increased Safety "e"	<b>IEC60079-7</b> : Electrical Apparatus for Explosive Gas Atmospheres Part 7: Increased Safety "e"	<b>EN50019</b> : Electrical Apparatus for Potentially Explosive Atmospheres: Increased Safety 'e'	
<b>AS 2380.7</b> : Electrical Equipment for Explosive Atmospheres - Explosion-Protection Techniques Part 7: Intrinsic Safety I  <b>AS/NZS 60079-11</b> : Electrical Apparatus for Explosive Gas Atmospheres Part 11: Intrinsic Safety "I"	<b>IEC60079-11</b> : Electrical Apparatus for Explosive Gas Atmospheres Part 11: Intrinsic Safety "I"	<b>EN50020</b> : Electrical Apparatus for Potentially Explosive Atmospheres Intrinsic Safety 'i' & <b>EN50039</b> : Electrical Apparatus for Potentially Explosive Atmospheres: Intrinsically Safe Electrical Systems 'i'	<b>FM Class No. 3610</b> : Intrinsically Safe Apparatus and Associated Apparatus for Use in Class I, II and III, Division 1 Hazardous (Classified) Locations
<b>AS 2380.9</b> : Electrical Equipment for Explosive Atmospheres - Explosion-Protection Techniques Part 9 Type of Protection n - Non-Sparking	<b>IEC60079-15</b> : Electrical Apparatus for Explosive Gas Atmospheres Part 15: Electrical Apparatus with Type of Protection "n"		<b>FM Class No. 3611</b> : Equipment for Use in Class I, Division 2 Class II, Division 2 and Class III, Division 1 and 2 Hazardous Locations
<b>AS 2431</b> : Electrical Equipment for Explosive Atmospheres - Encapsulated Apparatus - Type of Protection m	<b>IEC60079-18</b> : Electrical Apparatus for Explosive Gas Atmospheres Part 18: Encapsulation "m"	<b>EN50028</b> : Electrical Apparatus for Potentially Explosive Atmospheres Encapsulation "m"	
<b>AS/NZS 62013</b> : Caplights for use in mines susceptible to firedamp.	<b>IEC 62013</b> : Caplights for use in mines susceptible to firedamp.		

**Note:** Accreditation is continuous providing accredited bodies continue to comply with JAS-ANZ requirements. To confirm JAS-ANZ accreditation status, please refer to the JAS-ANZ website at [www.jas-anz.com.au](http://www.jas-anz.com.au)