



ExMC/266/R
August 2005

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

**Title: Re-assessment Report for the continued acceptance of TestSafe as an
Ex Certification Body.**

To: Members of the IECEx Management Committee, ExMC

Introduction

This document contains the IECEx Re-assessment Report for TestSafe of Australia as an Accepted ExCB in accordance with the 5-year re-assessment plan for the surveillance and monitoring of bodies under the IECEx Scheme.

This Report is issued for endorsement at the 2005 ExMC Buxton Meeting.

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IECEx RE-ASSESSMENT REPORT FORM

For Accepted Ex Certification Body (ExCB)

1. OBJECT AND FIELD OF APPLICATION

1.1 **Country:**
Australia

1.2 **ExCB under Re-Assessment**

TestSafe Australia

1.3 **Members of the Assessment Team**

Ian Cleare, Lead assessor
Wolf Dill, Assessor

1.4 **Place and Date of Re-Assessment**

Londonderry, NSW
24, 25 November 2004

1.5 **Assessment References**

Document:

- i) IECEx 02 Second Edition: 2003
- ii) IECEx Operational Document OD/009/V1: 2003
- iii) ISO/IEC Guide 65: 1996

1.6 **Current Scope of Acceptance**

Product Category	Standard
General requirements	IEC 60079-0
Flameproof enclosure "d"	IEC 60079-1
Pressurization "p"	IEC 60079-2
Powder filling "q"	IEC 60079-5
Oil immersion "o"	IEC 60079-6
Increased safety "e"	IEC 60079-7
Intrinsic safety "i"	IEC 60079-11
Type of protection "n"	IEC 60079-15
Encapsulation "m"	IEC 60079-18
Apparatus for combustible dusts	IEC 61241-1-1
Flammable gas detection apparatus	IEC 61779-1, 2,3, 4 & 5

1.7 **Any changes in Scope**

No application for extension of scope had been received prior to the re-assessment, but scope extensions to cover intrinsically safe systems, FISCO, cap lamps and trace heating products were discussed during and after the assessment, see Section 14.



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1.8 ExCB Persons Interviewed

Name	Position
Peter Harley	Director - TestSafe
Ujen Singh	Quality & Certification Manager
Ajay Maira	Manager-Electrical Low Current
Gordana Manojlovic	Manager-Electrical High Current
John Watt	Senior Technical Officer
Henry Huynh	Senior Engineer
Laurie Gerisch	Senior Technical Officer
James Bes	Senior Technical Officer
Les Golder	Senior Technical Officer
Garry Jeffery	Technical Officer
Wendy Davis	Customer Services Unit

1.9 Any changes in Legal Status of the ExCB
None

1.10 Associated Testing Laboratories

Names of Laboratories	Address
TestSafe Australia	Londonderry, NSW

1.11 National Marks and Certificates

ISO 9001-2000
ISO/IEC 17025
ISO Guide 65
ANZEx Scheme Certification Body

1.12 Financial Support

TestSafe Australia is a business unit of WorkCover NSW, the State authority for occupational health and safety, from that any shortfall in funding from current operations is obtained.

1.13 Standards Accepted

IEC standards listed at 1.6

1.14 National Differences to IEC Standards

None

2. ORGANIZATION

2.1 Names, Titles and Experience of the Senior Executives

Name	Title	Experience
Peter Harley	Director	OH&S inspector, manager

2.2 Name, Title and Experience of the Quality Management Representative

Name	Title	Experience
Ujen Singh	Quality & Certification Manager QMS and certification	Lead Quality Auditor,



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2.3 *Name and Title of Nominated Principal Contact*

Name	Title	Comments
Ujen Singh	Quality & Certification Manager	

2.4 *Names and Titles of Signatories for Certification*

Name	Title	Comments
Ujen Singh	Quality & Certification Manager	Additional staff as delegated

2.5 *Other Employees in ExCB activity*

Name	Title	Responsibility
Gordana Manojlovic	High Current Branch Manager	Management of Branch, assessment and certification
Russell Ashley	Senior Technical Officer	High current assessment and certification
James Bes	Senior Technical Officer	Testing Services
Fred Birks	Electrical contractor	High current assessment and certification, training
Gerry Gonzalez	Senior Technical Officer	High current assessment and certification
Adrian Rietdijk	Senior Technical Officer	High current assessment and certification
Steve Dolding	Electrical Engineer	High current assessment and certification
John Watt	Senior Technical Officer	High current assessment and certification
Bill Dunn	Electrical contractor	High current assessment and certification, training
Henry Huynh	Senior Engineer	High current assessment and certification
Les Golder	Senior Technical Officer	Testing Services
Ajay Maira	Low Current Branch Manager	Management of Branch, assessment and certification
David Fraser	Electrical Engineer	Low current assessment and certification
Garry Jeffery	Electrical Engineer	Low current assessment and certification
James Zhao	Electrical Engineer	Low current assessment and certification
Mohammed Abdelkrimi	Electrical Engineer	Low current assessment and certification



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2.6 Organisational Structure (Including Changes since Last Assessment)

		Peter Harley Director			Ujen Singh Quality & Certification Manager
Ravi Johnpullé Business Manager	Ajay Maira Manager, Low Current Branch	Gordana Manojlovic Manager, High Current Unit	Vince Higginbotham Testing Manager	(Other managers)	
Client services Accounts IT Admin Marketing	Certification Assessment Testing Calibration	Certification Assessment Testing	Electrical testing Stores Functions	(Other functions)	

Since the previous assessment, the structure has been changed to provide a separate testing function. Personnel changes have included the Director, the Quality & Certification Manager and the Business Manager. The Branch Managers and some of their staff have been trained to carry out assessment of manufacturers' quality systems in accordance with ExMC/161/CD.

3. RESOURCES

TestSafe appears to employ an adequate number of suitably competent people. The organization structure gives a good level of supervision of the work as well as providing the opportunity for people to extend their knowledge and skills. The management system is constantly under review and provides for continuous improvement through the internal audit process and other means.

TestSafe operates on a large site with substantial exclusion zones for the fire and explosion tests that are carried out from time to time. The operations are accommodated in substantial buildings that provide a reasonable working environment. The layout ensures adequate security for the protection of confidential information. The work equipment appears sufficient for the tasks that are performed, with an IT system linked to the WorkCover system. Workspace for the certification engineers is in an open plan arrangement that seems adequate for the purpose. The layout of the office areas enables good communications between the various business units.

4. COMMITTEES AND APPEAL PROCEDURES

TestSafe has a Certification Committee that satisfies the requirements of ISO/IEC Guide 65. At present there are four members and a fifth member representing the interests of end users is being sought. Meetings are held on an annual basis and the minutes for 2002 and 2003 were seen. There is a procedure for handling appeals, though none has been made during the past five years. It was pointed out to TestSafe that customers need to be made aware of the further appeal mechanism of the IECEx scheme and this was incorporated in a revised procedure after the visit.

5. CERTIFICATION OPERATIONS

5.1 National Approval/Certification Methods

TestSafe operates in the two national Ex certification schemes. The AUSEx scheme is a Type 1 scheme that is being phased out as the ANZEx scheme (Type 5) is phased in. The ANZEx scheme is very close to the IECEx in structure and operation.

5.2 Certification Policy

Certification policy is set out in a policy document that satisfies the requirements of Guide 65. The practice was observed to conform to the policy.



5.3 Staff Work Instructions

A series of work instructions is included in the management system, giving detailed information for the proper performance of critical tasks. Work instructions for the conduct of assessment and certification work and for flameproof pressure determination testing were seen. The former was in the process of revision to reflect the changes in the IECEx scheme.

5.4 Application for Certification

Applications for certification are made on an application form that provides the information required by Guide 65. The information facilitates contract review, quotation and job planning.

5.5 Sub-contractors

TestSafe had been using a sub-contractor for quality assurance assessments but that work has now been taken in house. A sub-contract laboratory for gas detector performance testing had closed its operations at its former location and was in process of re-establishing the testing facility at another location. At the time of the re-assessment TestSafe did not have access to a sub-contract performance testing facility. See 15. Recommendations, below.

6. STATISTICS

IECEx Certificates or ExTRs issued during the past 2 years (2003 and 2004)

Type	IECEx (CoC, ExTR)	National
Flameproof "d"	1 , 1	261
Intrinsic safety "i"	11 , 7	321
Increased safety "e"		29
Special "s"		11
Powder filled "q"		
Oil immersed "o"		
Pressurized "p"		
Encapsulated "m"	1	6
Type "n"		21
Apparatus for dusts		10
Gas detector performance		

7. NATIONAL ACCREDITATION

TestSafe is accredited by JAS-ANZ, the national accreditation body for certification and by NATA, the national laboratory accreditation body. The current JAS-ANZ accreditation certificate No. Z2221100AS was issued on 23 December 2002 and the current schedule is effective until 23 December 2006. The schedule covers Type 1 and Type 5 product certification in accordance with Guide 65. The scope includes the standards relevant to the IECEx scope and also a number of national standards in the explosion protection field. JAS-ANZ audit visits are carried out every six months. (See ExTL Report for details of NATA accreditation)

8. LIABILITY INSURANCE

TestSafe's liability is covered by the New South Wales government as indicated in a letter from the Treasury Managed Fund ref. TMF177/0203 dated 22 November 2002. The cover includes professional indemnity and product liability.

9. QUALITY MANUAL

The quality manual meets the requirements of Guide 65, although it was difficult to identify how the requirements of the IECEx scheme were built into the system. Examination of procedures showed that the management system did incorporate the IECEx requirements but the connection to the



related IECEx documents was not explicitly stated in most cases. Changes to the procedures were made after the visit giving direct reference to IECEx requirements.

10. INTERNAL AUDIT AND PERIODIC REVIEW

Internal audit and periodic management reviews are carried out at a frequency related to the criticality of the operations. Certification sections are subject to audit on a six monthly basis, with an annual management review. Actions arising from these events are followed up through the Opportunity For Improvement process that tracks the issue raised, the action required and its completion and verification.

11. COMPLAINTS

TestSafe operates a complaints and appreciations system. 8 complaints and 18 appreciations had been recorded in 2004 to date. Follow up action on the complaints was visible from the Feedback Registration Forms, although the level of detail in some cases made it difficult to see whether the action had satisfied the complainants. Subsequent to the visit the procedure was amended to provide adequate detail of follow-up action.

12. WITHDRAWAL AND CANCELLATION OF CERTIFICATES

TestSafe has a procedure for withdrawal and cancellation of certificates in its Certification Manual. To date none had been withdrawn or cancelled.

13. REVIEW OF ISSUED CERTIFICATES AND ExTRS

Examples of issued certificates, ExTRs and QARs showed some initial teething problems with the introduction of the IECEx CoC and QAR procedures, but changes had been implemented to overcome the difficulties. ExTRs were prepared in accordance with the IECEx requirements, although there had been some delay in sending copies of the cover pages to the IECEx Secretary. The QAR examined showed a good level of detail that went beyond the minimum requirements of ExMC/161/CD. The certification procedure includes a Recommendation for Certification sheet that states the reference numbers of the ExTR and the QAR. The CoCs examined were in accordance with the IECEx requirements.

14. FINDINGS FROM THE RE-ASSESSMENT

TestSafe is a long-established and well-equipped CB and TL, with a sufficient number of staff of the necessary competences. The attitude of all staff from Director down is of commitment to achieving a high quality of work while meeting customer needs as far as possible. The re-assessment revealed a good level of compliance with the IECEx requirements, although a few points were noted where changes could be beneficial. Action on these points was taken and documentary evidence provided following the re-assessment visit.

The one significant issue was that relating to the gas detector performance testing facility. Following the closure of the facility, it was in the process of being transferred to a new location a significant distance from where it was previously located. At the time of the re-assessment visit, the new facility was not operational and a planned visit to the new site had to be cancelled. As a result, TestSafe did not have access to a suitable facility so could not, for the time being, include IEC 61779 in its scope.

Extensions to the accepted ExCB scope were discussed briefly during the assessment and dealt with subsequently by correspondence. For intrinsically safe systems (IEC 60079-25) and FISCO (IEC 60079-27), the knowledge and equipment required for intrinsic safety (IEC 60079-11) were regarded as adequate to cover these additional standards. For cap lamps (IEC 62013-1) and trace heating (IEC 62086-1) some additional equipment and the related work instructions and competences needed to be demonstrated. Documentary evidence was provided and found to be adequate.



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15. RECOMMENDATIONS

It is recommended that:

1. TestSafe Australia should continue to be an accepted ExCB in the IECEx scheme, but IEC 61779-1 to -5 should be removed from its scope until the arrangements for the new test facility have been successfully assessed.

2. The ExCB scope should be extended to include:

- Intrinsically safe systems to IEC 60079-25
- FISCO to IEC 60079-27
- Cap lamps to IEC 62013-1
- Trace heating to IEC 62086-1

once these activities have been included in the NATA and JAS-ANZ scopes.

3. The IECEx Management Committee should adopt a policy allowing conversion of the scope of all ExCBs to reflect the new IEC 61241 standards.

Ian Cleare
Lead assessor

Wolf Dill
Assessor

LIST OF ANNEXES

A. Proposals for improvements to IECEx scheme.



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ANNEX A. Proposals for improvements to the IECEx Scheme

The following proposals for improvements arose or were suggested by TestSafe staff during the re-assessment visit.

1. Online CoC:

- a) Entry of data, particularly where formatted text is required, is made difficult because of the need to convert to HTML.
- b) It is possible for someone with a first (drafting) level password to issue a supplementary certificate.
- c) How can other standards such as IEC 60529 (IP) be included on the CoC (if that is/should be allowed)?

2. Scope extensions: the procedure for extension of an ExCB's scope needs to be made clear.

3. QAR: It would be helpful if the level of audit detail to be recorded could be clarified. There appear to be big differences in the practice of ExCBs.

4. Surveillance and re-assessment of ExCBs:

a) ExMC/100 (draft OD 003) should be implemented in respect of the annual reports required from ExCBs (and ExTLs).

b) Prior to re-assessments, ExCBs and ExTLs should be asked to review the original application documents (including IECEx 02 Annex D) and to highlight changes since the original assessment or the previous re-assessment.