



**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 Safety in Mines
Testing and Research Station (SIMTARS) as an Ex Certification Body.**

To: Members of the IECEx Management Committee, ExMC

Introduction

This document contains the IECEx Re-assessment Report for of Safety in Mines Testing and Research Station (SIMTARS) 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**

Safety in Mines Testing and Research Station (SIMTARS)

1.3 **Members of the Assessment Team**

Ian Cleare, Lead assessor
Wolf Dill, Assessor

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

2 Smith Street, Redbank, Queensland 4301, Australia
29, 30 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

1.7 **Any changes in Scope**

Changes in scope were discussed: see Sections 14 and 15 below.



1.8 *ExCB Persons Interviewed*

Name	Position
Jim Birch	Manager, ETCC
Ashraf Chowdhury	Principal Engineer – Certification & Quality Co-ordinator
Geoff Barnier	Principal Engineer – Intrinsic Safety
Bipin Parmar	Principal Engineer – Flameproof & General
Ray Davis	Principal Engineer – Flameproof & General
Gunter Lenicek	Senior Engineer
Jenny Theiss	Supervising Technical Officer
John Ellis	Technical Officer
David Soady	Technical Officer
Graeme Park	Technical Officer

1.9 *Any changes in Legal Status of the ExCB*

None

1.10 *Associated Testing Laboratories*

<i>Names of Laboratories</i>	<i>Address</i>
SIMTARS ETCC	Redbank, QLD

1.11 *National Marks and Certificates*

AUSEx Scheme Certification Body
ANZEx Scheme Certification Body

1.12 *Financial Support*

SIMTARS is a division of the Queensland Department of Natural Resources and Mines. It's operating and capital expenditure are funded by the Department on an annual budget basis, with a requirement to achieve a budgeted revenue by charging fees for its services. Work carried out for the Department is not counted as revenue earning.

1.13 *Standards Accepted*

IEC standards listed at 1.6

1.14 *National Differences to IEC Standards*

None, apart from IEC 60079-15, Ed.2 being unacceptable in AU.

2. ORGANIZATION

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

Name	Title	Experience
Jim Birch	Manager, ETCC	2½ years Intrinsic Safety <ul style="list-style-type: none"> ○ Technical officer ○ Section Head 4 years Certification as Section Head 4 years as Manager of ETCC



2.2 Name, Title and Experience of the Quality Management Representative

Name	Title	Experience
Ashraf Chowdhury	Quality Co-ordinator	4 years Flameproof as Section Head 4 years Certification as Section Head - Includes Quality Co-ordinator role

2.3 Name and Title of Nominated Principal Contact

Name	Title
Jim Birch	Manager, ETCC

2.4 Names and Titles of Signatories for Certification

Name	Title	Comments
Ashraf Chowdhury	Principal Engineer, Certification	Manager, ETCC, may sign

2.5 Other Employees in ExCB activity

Name	Title	Responsibility
Geoff Barnier	Principal Engineer	Section Head, Intrinsic safety section
Gunter Lenicek	Senior Engineer	Intrinsic safety assessment & test
Jenny Theiss	Supervising Technical Engineer	Intrinsic safety assessment & test
Viji Krishnaratnam	Engineer	Intrinsic safety assessment & test
Bipin Parmar	Principal Engineer	Section Head, Flameproof & general section
Paul Binnie	Senior Technical Officer	Flameproof and general assessment & test
John Ellis	Technical Officer	Flameproof and general assessment & test
Greg Egorov	Technical Officer	Flameproof and general assessment & test
John Darling	Technical Officer	Flameproof and general assessment & test
Ray Davis	Principal Engineer	Section Head, Flameproof & general section
David Soady	Technical Officer	Flameproof and general assessment & test
Graeme Park	Technical Officer	Flameproof and general assessment & test

2.6 Organisational Structure (Including Changes since Last Assessment)

		Jim Birch Manager, ETCC		Ashraf Chowdhury Quality Co-ordinator
Ashraf Chowdhury Certification Engineer	Geoff Barnier Section Head Intrinsic Safety Section	Bipin Parmar Section Head Flameproof & General Testing Section	Ray Davis Section Head Flameproof & General Testing Section	Other Section Heads
Certification	Assessment Testing Quality auditing	Assessment Testing Quality auditing	Assessment Testing Quality auditing	Calibration Workshops

3. RESOURCES

SIMTARS Engineering, Testing and Certification Centre (ETCC) appears to have a sufficient number of staff to meet the current level of business. They are mostly well-experienced in explosion protection assessment and testing. Training needs are identified through an annual review of competences across the range of ETCC's work. Competence is attained mostly through on the job training, with assessments by experienced staff being recorded to build up the competence matrix. There was evidence of staff developing new skills for example in quality system auditing of manufacturers. The management system is controlled in electronic form as part of the SIMTARS system. It appeared to be adequately controlled and backed up.

The accommodation for ETCC has been improved in the past two years and is to a high standard for both office and laboratory areas. Further improvements, for example in the flameproof testing facilities, are planned. The work equipment appears adequate for its purpose and work space for engineers in shared office areas provides for reasonable communication and supervision.

4. COMMITTEES AND APPEAL PROCEDURES

ETCC has a Certification Advisory Committee that meets the requirements of ISO/IEC Guide 65. The committee has seven members including two ETCC staff and five people representing users, manufacturers and regulatory authorities. The committee meets annually, the minutes of the meeting held on 18 March 2004 having been sighted.

The Product Certification Manual provides for applicants to appeal to the Certification Advisory Committee against a decision of ETCC. However there is no detailed procedure and no reference to the further appeal route provided by IECEx. No appeals had been received during the past five years.

5. CERTIFICATION OPERATIONS

5.1 *National Approval/Certification Methods*

SIMTARS 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 scheme in structure and operation.

5.2 *Certification Policy*

Certification policy is set out in the Product Certification Manual 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 manufacturers' quality system audit activities were seen.

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*

ETCC has a procedure for evaluating sub-contractors and maintains a register of those that have been approved. The procedure does not provide for periodic review of sub-contractors that are not in frequent use. Two companies were listed on the register, one of that had not been used for 5 years.

6. STATISTICS

IECEX Certificates or ExTRs issued during the past 2 years

Type	IECEX (CoC, ExTR)	National
Flameproof "d"	8	54
Intrinsic safety "i"	0	36
Increased safety "e"	0	9
Special "s"	0	3
Powder filled "q"	0	0
Oil immersed "o"	0	0
Pressurized "p"	0	3
Encapsulated "m"	0	4
Type "n"	0	8
Apparatus for dusts	8	9

7. NATIONAL ACCREDITATION

SIMTARS is accredited by JASANZ, the national accreditation body for certification and by NATA, the national laboratory accreditation body. The current JASANZ accreditation certificate No. Z1630296AB was issued on 3 September 1999 and the current schedule was issued on 3 August 2004. 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. JASANZ audit visits are carried out every six months. (See ExTL Report for details of NATA accreditation)

8. LIABILITY INSURANCE

As a division of the Queensland Department of Natural Resources and Mines, SIMTARS liabilities are covered by the State.

9. QUALITY MANUAL

The quality manual meets the requirements of Guide 65, although in the product assessment and testing area 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. It was not clear how changes in the IECEx documents would be detected and reflected in the management system. This issue has since been resolved to the satisfaction of the Assessment Team (refer item 14 below)

10. INTERNAL AUDIT AND PERIODIC REVIEW

Internal audits and periodic quality system reviews are carried out in accordance with Guide 65. However the internal audits are carried out at a relatively high level in the system, with the result that technical issues might not be covered in sufficient detail.

11. COMPLAINTS

SIMTARS operates a customer feedback system that deals with complaints and appreciations of service. The form that is used allows for follow-up action to be identified and satisfactory completion to be recorded. 3 complaints and one appreciation relating to ETCC had been recorded for 2004 to date.

12. WITHDRAWAL AND CANCELLATION OF CERTIFICATES

The ETCC Product Certification Regulation Manual includes arrangements for the withdrawal and cancellation of certificates. However the circumstances where a certificate had been issued in error were not covered. . This issue has since been resolved to the satisfaction of the Assessment Team (refer item 14 below)

13. REVIEW OF ISSUED CERTIFICATES AND EXTRS

Because only a small number of IECEx CoCs had been issued, one IECEx “d” CoC file was subjected to vertical audit while the Ex “i” file audited was for an AUS Ex (Type 1) CoC. In both cases the relevant procedures had been followed and the processes conformed to the IECEx requirements.

14. FINDINGS FROM THE RE-ASSESSMENT

SIMTARS ETCC is a well-established testing laboratory and its certification activities have been developed to operate at a good level. The body was found to comply with the ExCB requirements. Some suggestions for areas for improvement were noted:

- There needs to be an explicit linkage between the IECEx documents and the SIMTARS ETCC procedures;
- Internal audits would benefit from having a sharper technical focus;
- Records for Certification Advisory Committee members need to be completed and kept up to date;
- The procedure for evaluating sub-contractors should include periodic review of those listed on the register.

In the view of the IECEx assessors these items did not constitute non-compliances and no formal requests for corrective actions were made. However, subsequent correspondence gave satisfactory details of amended procedures that addressed the issues that had been raised.

In response to a request from SIMTARS the possibility of extending the scope to include Cap lamps (IEC 62013-1), Trace heating (IEC 62086-1), FISCO (IEC 60079-27) and Intrinsically safe systems (IEC 60079-25) was investigated. Staff knowledge in all areas was found to be good but some items of test equipment did not exist and would need to be provided.

Discussions also took place on the inclusion of the new IEC 61241 standards covering different protection types for use with combustible dusts. The assessment team was of the opinion that the existing knowledge of the staff regarding dust protection and the types of protection for gas atmospheres was sufficient to allow the new standards to be included in the ExCB scope. See Recommendation 3.

15. RECOMMENDATIONS

It is recommended that:

1. SIMTARS should continue to be an accepted ExCB in the IECEx scheme.
2. The scope should be extended to include:
 - Cap lamps to IEC 62013-1
 - Trace heating to IEC 62086-1
 - FISCO to IEC 60079-27
 - Intrinsically safe systems to IEC 60079-25

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
IECEx Lead Assessor

Wolf Dill
IECEx Assessor

LIST OF ANNEXES

None