



ExMC/248/DV  
June 2005

**IEC SCHEME FOR CERTIFICATION TO STANDARDS RELATING TO  
EQUIPMENT FOR USE IN EXPLOSIVE ATMOSPHERES (IECEx  
SCHEME)**

**Ex Management Committee, ExMC**

**TITLE: IECEx Assessment Report for an extension of scope for existing  
ExCB SIRA**

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**INTRODUCTION**

The IECEx Assessment Team carried out an assessment for an extension of scope during SIRA's reassessment. Outcomes of the reassessment will be finalised during Buxton October 2005 series of meetings.

This document contains the IECEx Assessment Report for voting on an extension of scope for existing ExCB SIRA

The report is hereby submitted for voting by ExMC

Please consider the assessment report and return the completed voting form to the Secretariat by 2005 08 28. Your speedy response to the voting process will be very much appreciated.

You may return your completed voting form (available in Word format) via fax or e-mail. Details below.

*Chris Agius*  
*IECEx Secretariat*

**Address:**  
**IECEx Secretariat**  
**SAI Building**  
**286 Sussex Street**  
**Sydney 2000**  
**Australia**

**Tel: +61 2 8206 6940**  
**Fax: +61 2 8206 6272**  
**Email: [chris.agius@iecex.com](mailto:chris.agius@iecex.com)**  
**Internet: [www.iecex.com](http://www.iecex.com)**



# **IECEx RE-ASSESSMENT AND EXTENSION OF SCOPE REPORT for Accepted Ex Certification Body (ExCB) SIRA**

## **1. OBJECT AND FIELD OF APPLICATION**

### **1.1 *Country***

**United Kingdom**

### **1.2 *ExCB under Re-Assessment***

Sira Test & Certification Ltd.

### **1.3 *Members of the Assessment Team***

Jim Munro, Jim Munro International Compliance Pty Limited, Australia  
(Lead Assessor)

Heinz Berger, CERTICONSULT GmbH, Switzerland (Expert Assessor)

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

Sira Test & Certification Ltd.  
Hazardous Area Centre  
Rake Lane Eccleston Chester CH4 9JN  
U.K.

7<sup>th</sup> and 8<sup>th</sup> of March, 2005

### **1.5 *Assessment References***

Documents:

- i) IECEx 02 Second Edition
- ii) IECEx Operational Documents e.g. OD/009/V1
- iii) ISO/IEC Guide 65 1996

### **1.6 *Current Scope of Acceptance***

<b>Product Category</b>	<b>Standard</b>
General Requirements	IEC 60079-0
Flameproof	IEC 60079-1
Pressurised	IEC 60079-2
Quartz/Sand Filled	IEC 60079-5
Oil Filled	IEC 60079-6
Increased Safety	IEC 60079-7



Intrinsic Safety	IEC 60079-11
Type n	IEC 60079-15
Encapsulation	IEC 60079-18

### 1.7 **Extension of Scope**

Dust (general)	IEC 61241-0*
Dust (protection tD)	IEC 61241-1*
Dust (protection by enclosure)	IEC 61241-1-1
Dust (protection pD)	IEC 61241-4
Dust (protection mD)	IEC 61241-18*
Intrinsically safe systems	IEC 60079-25*
Group II Zone 0 apparatus	IEC 60079-26*
Fieldbus intrinsically safe (FISCO)	IEC 60079-27*
Gas detectors (general requirements gas detect)	IEC 61779-1
Performance requirements for Group I app	IEC 61779-2
Performance requirements for Group I app	IEC 61779-3
Performance requirements for Group II app	IEC 61779-4
Performance requirements for Group II app	IEC 61779-5
Caplights for Group I	IEC 62013-1
Trace heating	IEC 62086-1

*\* indicates not covered by current UKAS Accreditation*

See comment in chapter 14.3

### 1.8 **ExCB Persons Interviewed**

<b>Name</b>	<b>Position</b>
M. Shearman	General Manager
D. Stubbings	Certification Manager Ex
B. Howard	Quality Manager
W. Thomas	Ex QA Services

### 1.9 **Any changes in Legal Status of the ExCB**

None.

### 1.10 **Associated Testing Laboratories**

<b>Names of Laboratories</b>	<b>Address</b>
Sira Test & Certification Ltd.	Rake Lane Eccleston Chester
GMI (for 61779 Series and subject to ExMC acceptance of GMI see ExMC/247/DV)	Gas Measurement Instruments Ltd Inchinnan Estate, Renfrew, PA4 9RG Scotland



### 1.11 **National Marks and Certificates**

ATEX            Certificates            issued

### 1.12 **Financial Support**

Sira Test & Certification Ltd, Hazardous Area Centre, Rake Lane, Ecclestone, Chester CH4 9JN, is from the financial point of view a subsidiary of SIRA LTD, South Hill, Chislehurst, Kent, BR7 5EH and is self founded.

### 1.13 **Standards Accepted**

Product Category	Standard
General Requirements	IEC 60079-0
Flameproof	IEC 60079-1
Pressurised	IEC 60079-2
Quartz/Sand Filled	IEC 60079-5
Oil Filled	IEC 60079-6
Increased Safety	IEC 60079-7
Intrinsic Safety	IEC 60079-11
Type N	IEC 60079-15
Encapsulation	IEC 60079-18
Dust (general)	IEC 61241-0*
Dust (protection tD)	IEC 61241-1*
Dust (protection by enclosure)	IEC 61241-1-1*
Dust(protection pD)	IEC 61241-4*
Dust (protection mD)	IEC 61241-18*
Intrinsically safe systems	IEC 60079-25*
Group II Zone 0 apparatus	IEC 60079-26*
Fieldbus intrinsically safe (FISCO)	IEC 60079-27*
Gas detectors (general requirements gas detect)	IEC 61779-1*
Performance requirements for Group I app	IEC 61779-2*
Performance requirements for Group I app	IEC 61779-3*
Performance requirements for Group II app	IEC 61779-4*
Performance requirements for Group II app	IEC 61779-5*
Caplights for Group I	IEC 62013-1*
Trace heating	IEC 62086-1*

\*extension of scope

### 1.14 **National Differences to IEC Standards**

Group differences are listed in IECEx Bulletin Ed. 2.

## 2. ORGANISATION

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

Name	Title	Experience
I. D. Knott	Chief Executive Officer	30 years +
M. D. Shearman	General Manager	6 years
D. R. Stubbings	Certification Manager	10 years
W. Thomas	Certification Manager Quality Systems	5 years

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

Name	Title	Experience
B. Howard	Quality Manager	15 years

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

Name	Title	Comments
D. R. Stubbings	Certification Manager	Replacing I.D. Knott

### 2.4 *Names and Titles of Signatories for Certification*

Name	Title	Comments
D. R. Stubbings	Certification Manager	---
C. Ellaby	Certification Officer	---

### 2.5 *Other Employees in ExCB activity*

Name	Title	Responsibility
P. Walsh	Consultant Engineer	Team Leader is, m, n, q
B. Allen	Senior Certification Engineer	
D. Holton	Senior Certification Engineer	
A. Deaves	Senior Certification Engineer	
I. Hulse	Senior Certification Engineer	
P. Reeve	Consultant Engineer	
A. Templar	Senior Certification Engineer	
S. Finch	Consultant Engineer	Team Leader d, e, p, o, class I, IP, fuel pumps
D. Hanks	Senior Certification Engineer	
S. Otty	Senior Certification Engineer	
A. Smith	Certification Engineer	

The ExCB may put these engineers in charge as experts for the checking of the completed ExTR's. It is granted by Sira, that the rule concerning independent activities between the ExCB and the ExTL is fulfilled.

## **2.6 *Organisational Structure (Including Changes since Last Assessment)***

See

**Annex A** for the Organization Chart of the Sira Group and  
**Annex B** for the Organization Chart of the Sira Hazardous Area Centre.

## **3. RESOURCES**

At the moment thirteen (13) persons are involved in IECEx certification activities in order to secure professional competence in the certification process. One (1) person and additional 10 people under subcontract are involved in the QAR activities. These were reviewed as part of the assessment.

## **4. COMMITTEES AND APPEAL PROCEDURES**

Sira appoints a Governing Body according to HAZ Area Centre Quality Manual (HAZ QM) clause 4.1. Customers, according to HAZ QM, clause 8.4, can submit appeals.

## **5. CERTIFICATION OPERATIONS**

### **5.1 *National Approval/Certification Methods***

Sira is a registered Notified Body under the European ATEX Directive, stated in document Dti URN 04/1805 (ExNB). The NB number is 0518.

### **5.2 *Certification Policy***

The hazardous area Product Certification policy is described in several chapters of the HAZ QM.

### **5.3 *Staff Work Instructions***

The hazardous area staff work instructions are described in several chapters of the HAZ QM.

### **5.4 *Application for Certification***

The certification application process is described in the HAZ Procedure manual, issue 23, section 3. Forms 9118 (for new products) and 9235 (for modifications) are in use for certification applications.



## 6. STATISTICS

IECEx Certificates or ExTRs issued during the past 2 years:

flameproof	d	11
intrinsic safety	i	20
increased safety	e	8
special	s	0
powder filled	q	0
encapsulated	m	1
type	n	0
pressurised	p	0
Gas Detectors		0
Apparatus for Dusts		0

700 + TRs have been issued by Sira in accordance with the European ATEX regulation.

## 7. NATIONAL ACCREDITATION

Sira Certification Service holds UKAS Accreditation for the Certification Body No. 011, valid until 30 June 2006. See **Annex C** for the certificate and **Annex D** for the Schedule.

## 8. LIABILITY INSURANCE

Indemnity insurance contract was presented, issued by MARSH Ltd. for SIRA LTD and Subsidiary and Associated Companies, South Hill, Chislehurst, Kent, BR7 5EH. This contract is valid until 30<sup>th</sup> June 2005.

## 9. QUALITY MANUAL

Sira Test & Certification Hazardous Area Centre Quality Manual, issue 16, was presented. Reference to IECEx operation is laid down in Appendix 14 of the SCS Hazardous Area Prod – Certi & Assessment Procedures Manual, issue 23.

## 10. INTERNAL AUDIT AND PERIODIC REVIEW

Internal Audits and Management Review is described in HAZ QM clause 6. The computer based PROQUIS-SYSTEM (Quality Management Information System) is used for the control of the processes. The internal audit schedule for 2004 and 2005 was presented for the Chester and the Chislehurst facility.

## **11. COMPLAINTS**

No-unresolved complaints. Complaints – if any - are handled according to HAZ QM clause 8.

## **12. WITHDRAWAL AND CANCELLATION OF CERTIFICATES**

Withdrawal and Cancellation of CoC's is handled according to HAZ QM clause 7.

## **13. REVIEW OF ISSUED CERTIFICATES AND EXTRS**

The following files were reviewed: # SIR 04 0021, # SIR 04 0022X, # 03 0003U, # SIR 04 0002X and # SIR 04 0005.

## **14. FINDINGS FROM THE RE-ASSESSMENT**

14.1 Mr. I. Knott, responsible for the overall certification activities in Sira was not able to be present. Mr. Mike Shearman deputised.

14.2 Sira Test & Certification Ltd. is presently registered at Chislehurst address. However, the IECEx certification activities are solely operated in Chester. Therefore the address registered in the IECEx scheme is changed to Chester.

It is noted, that Sira Test & Certification Ltd. will undergo changes in the organization without losing the competences. However, the re-assessment is performed based on the existing organization.

14.3 Some of the standards listed in chapter 1.7 of this report are not listed in the current UKAS accreditation documents. An asterisk identifies these Standards. Sira seek an extension of their UKAS Scope of Accreditation to cover these, or alternatively, provide a statement in order to allow an annual surveillance visit by IECEx representatives instead of UKAS.

14.4 The certification files listed in Item 13 of this report were checked against IECEx Rules. It was found, due to lack of clarity in the roles of the officers involved, that it was not clear that the ExTR's met the requirements of clause 3.9 of IECEx 02. The process and the organization chart were changed during the re-assessment to better clarify the roles. The assessment team are satisfied that the IECEx requirements are now met.

14.5 It was noted, that Mr. Jim Sheriff, GMI Renfrew, is a member of the Sira Appeal Board. GMI is under subcontract with Sira as a test laboratory for gas instruments. Mr. Sheriff will step back in cases GMI is involved and which may cause a conflict of interest.

A record of actions taken to resolve the above issues, together with detailed recommendations has been provided to Sira and the IECEx Secretariat, with the assessment team fully satisfied that all issues have been addressed.

## **15. RECOMMENDATIONS**

Based on the re-assessment performed during March 7<sup>th</sup> and 8<sup>th</sup>, 2005, it is recommended that Sira continue to operate as Certification Body in the IECEx Scheme under the present and the extended scope (chapter 1.13). The condition being that Sira provides UKAS accreditation for the extended scope or a statement to be provided by Sira in order to allow an annual surveillance visit by IECEx representatives instead of UKAS.

## **LIST OF ANNEXES**

Annex A: Organization Chart of Sira Group

Annex B: Organization Chart Sira Hazardous Area Centre

Annex C: UKAS Accreditation Certificate for ExCB

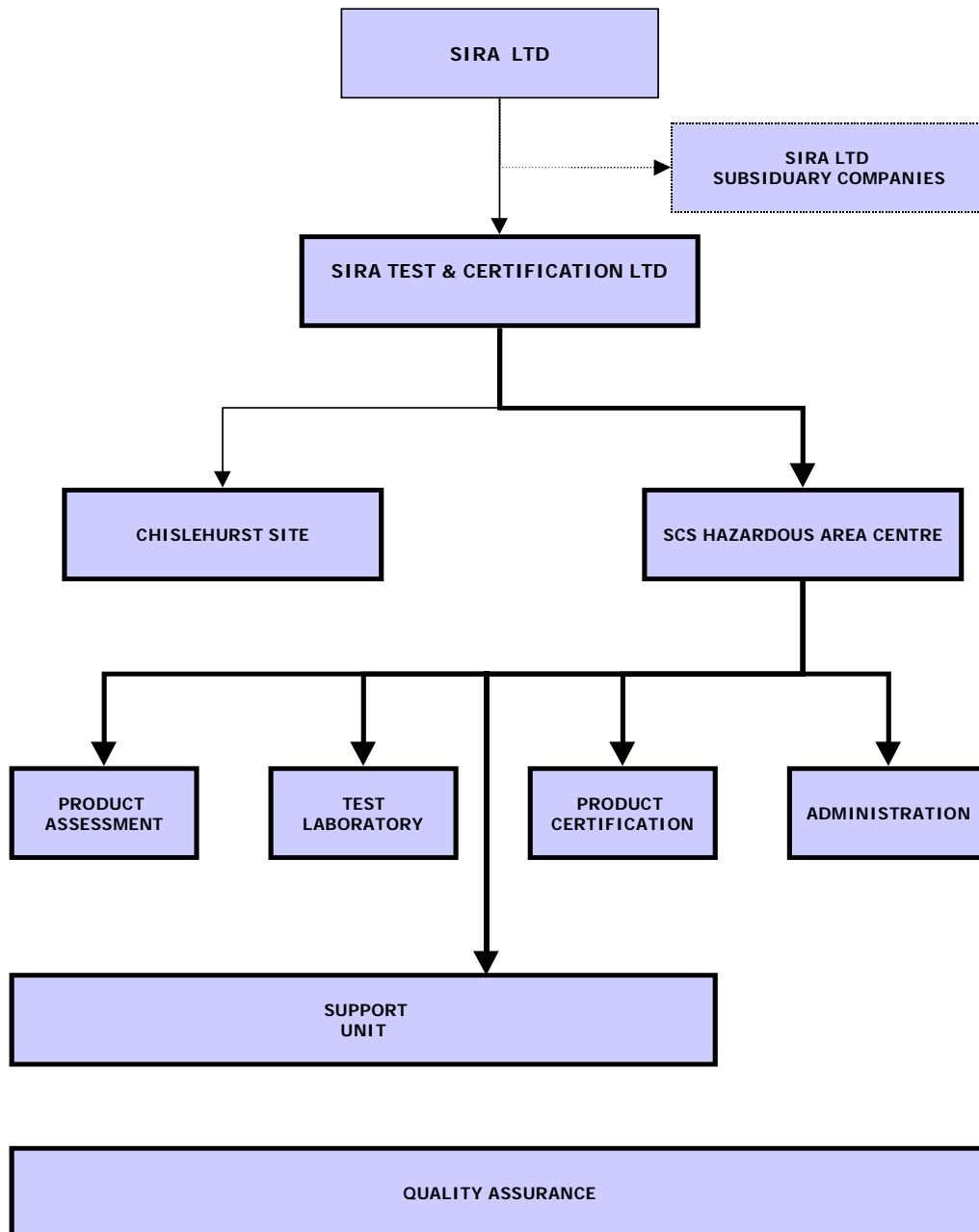
Annex D: UKAS Accreditation Schedule for ExCB

**Jim Munro**  
**Lead Assessor**

**Heinz Berger**  
**Assessor**

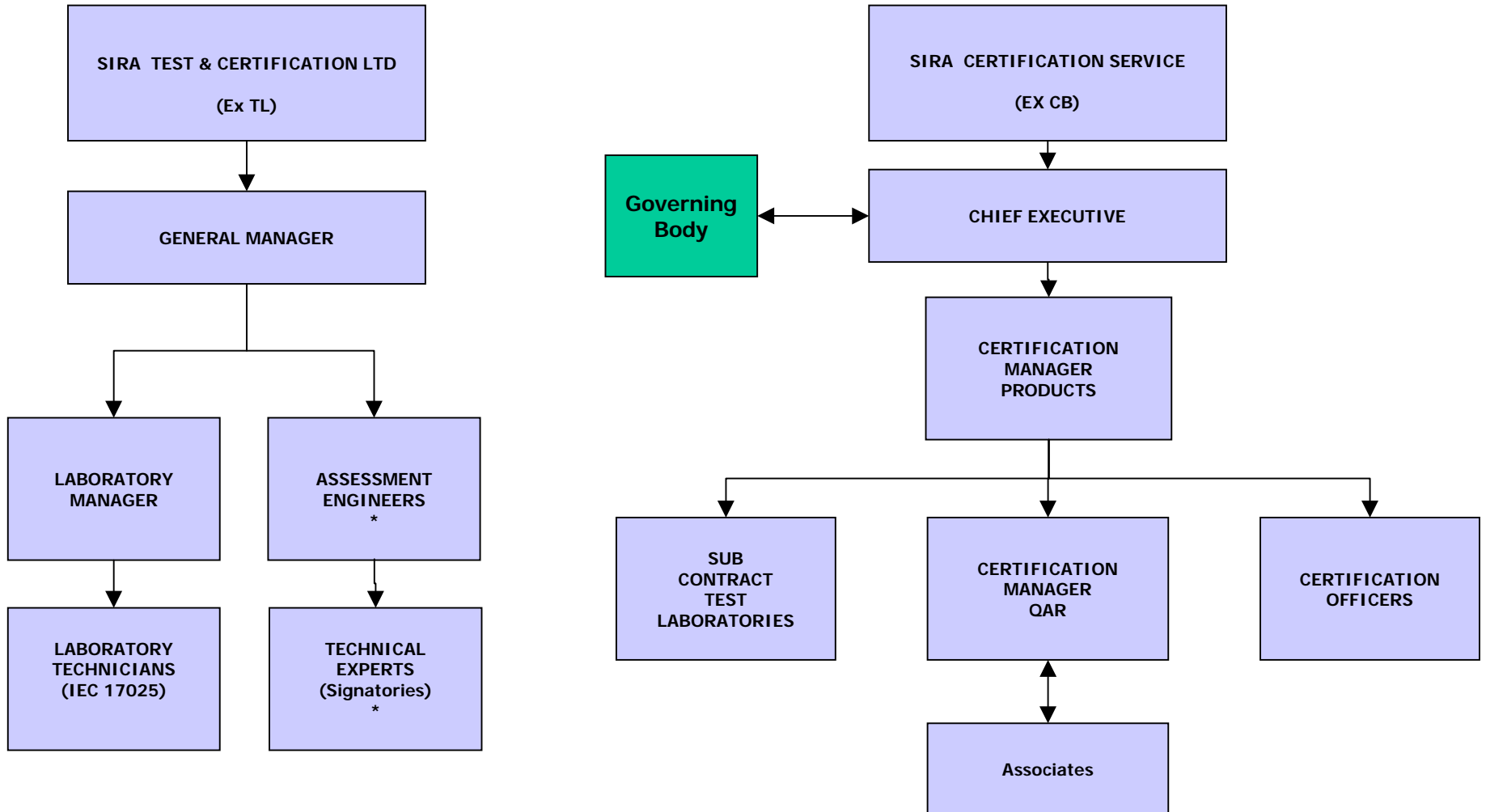
**19 May 2005**

CHART 1 - Organisation of the Sira Group



**SIRA TEST & CERTIFICATION  
ORGANISATION CHART (IECEx CERTIFICATION)**

**Annex B**



Note: The title defined here (\*) is the role undertaken to illustrate the independence of the checking function and does not reflect the Job Title of the personnel, which is either Certification Engineer or Consultant Engineer. Personnel may fulfil either function depending on their competence

# United Kingdom Accreditation Service

## Annex C

### ACCREDITATION CERTIFICATE



**CERTIFICATION BODY**  
**No. 011**

#### **SIRA Certification Service**

is accredited to EN45011 *General requirements for bodies operating product certification systems*, to provide product conformity certification. The scope of the accreditation is detailed in the schedule bearing the above accreditation number. The sites covered by this accreditation and the countries in which the certification body operates are detailed in the appendix to this certificate.

From time to time the schedule and the appendix to this certificate may be revised and reissued by the United Kingdom Accreditation Service.

This Accreditation shall remain in force until the expiry date printed below, subject to continuing compliance with United Kingdom Accreditation Service requirements.

**Initial accreditation October 1988**

**Accreditation Manager, United Kingdom Accreditation Service**

**This certificate issued on 12 September 2002**

**Expiry date 30 June 2006**


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The Department of Trade and Industry (DTI) has entered a memorandum of understanding with the United Kingdom Accreditation Service (UKAS) through which UKAS is recognised as the national body responsible for assessing and accrediting the competence of organisations in the fields of measurement, testing, inspections and certification of systems, products and personnel.

# Schedule of Accreditation

issued by

## United Kingdom Accreditation Service

21 - 47 High Street, Feltham, Middlesex, TW13 4UN, UK

 <p><b>011</b></p> <p>Accredited to ISO/IEC Guide 65 to provide product conformity certification</p>	<p align="center"><b>SIRA Certification Service</b></p> <p align="center"><b>Issue No: 43    Issue date: 23 June 2005</b></p>	
	<p><b>South Hill</b>  <b>Chislehurst</b>  <b>Kent</b>  <b>BR7 5EH</b></p>	<p><b>Contact:</b> Mr I D Knott</p> <p><b>Tel:</b> +44 (0)20 8467 2636</p> <p><b>Fax:</b> +44 (0)20 8468 1841</p> <p><b>E-Mail:</b> certification@sira.co.uk</p> <p><b>Website:</b> www.sira.co.uk</p>

Product	Standard
<p>Electrical apparatus for potentially explosive atmospheres using the following protection concepts:</p> <p>General requirements</p> <p>Oil immersion 'o'</p> <p>Pressurised apparatus 'p'</p> <p>Powder filling 'q'</p> <p>Flameproof enclosures 'd'</p> <p>Increased safety 'e'</p> <p>Intrinsic safety 'i'</p> <p>Type of protection 'n'</p> <p>Encapsulation 'm'</p> <p>Intrinsically safe electrical systems</p> <p>Explosion prevention basic concepts and Methodology</p> <p>Special category requirements</p> <p>Special protection (Exs)</p>	<p>EN 50014, IEC 60079-0</p> <p>EN 50015, IEC 60079-6</p> <p>EN 50016, IEC 60079-2</p> <p>EN 50017, IEC 60079-5</p> <p>EN 50018, IEC 60079-1</p> <p>EN 50019, IEC 60079-7</p> <p>EN 50020, IEC 60079-11</p> <p>EN 50021, IEC 60079-15</p> <p>EN 50028, IEC 60079-18</p> <p>EN 50039</p> <p>EN 1127-1</p> <p>EN 50284</p> <p>HSE SFA 3009</p>
<p>Non-electrical equipment for potentially explosive atmospheres</p>	<p>EN 13463 Parts 1, 5 and 8</p>
<p>Group 1 Category M1 Equipment</p>	<p>EN 50303</p>
<p>Miners cap lamps</p>	<p>EN 50033, IEC 62013-1</p>
<p>Electrostatic hand-held spraying equipment</p>	<p>EN 50050, BS 6742: Part 1</p>
<p>Electrical apparatus for the detection and measurement of flammable gases:</p> <p>General requirements</p> <p>Performance requirements for Group I apparatus</p> <p>Performance requirements for Group II apparatus</p>	<p>EN 50054, IEC 61779-1</p> <p>EN 50055, EN 50056, IEC 61779-2, IEC 61779-3</p> <p>EN 50057, EN 50058, IEC 61779-4, IEC 61779-5</p>

**Annex D****011**

Accredited to ISO/IEC Guide 65  
to provide product conformity  
certification

**Schedule of Accreditation**  
issued by  
**United Kingdom Accreditation Service**  
21 - 47 High Street, Feltham, Middlesex, TW13 4UN, UK

**SIRA Certification Service****Issue No:** 43**Issue date:** 23 June 2005

Product	Standard
Electrical apparatus for use in the presence of combustible dust Type of protection pD	EN 50281-1-1, IEC 61241-1-1 IEC 61241-4
Luminaires	EN 60598
Electrical equipment for measurement, control and laboratory use: Safety requirements	EN 61010, Part 1
Rotating electrical machines	BS 5000: Part 16
Indicating and recording electrical measuring instruments: Safety requirements	BS 5458
Mechanical cable glands Metallic, polymeric, or special corrosion resistant glands	BS 6121 Parts 1 to 3
Reciprocating internal combustion engines Group I and II engines	EN 1834-1, EN 1834-2, EN 1834-3
Industrial Trucks	EN 1755
Metering pumps & dispensers to be installed at filling stations and used to dispense liquid fuel	BS 7117: Part 1 PAS 022
Electrical resistance trace heating	IEC 62086-1, IEEE 515
Flame arrestors	BS 7244, EN 12874
Electrical apparatus for the detection of combustible gases in domestic premises	BS 7348
Portable apparatus designed to detect and measure combustion flue gas of domestic heating appliances	BS 7927

## Annex D



**011**

Accredited to ISO/IEC Guide 65  
to provide product conformity  
certification

**Schedule of Accreditation**  
issued by  
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21 - 47 High Street, Feltham, Middlesex, TW13 4UN, UK

**SIRA Certification Service**

**Issue No:** 43

**Issue date:** 23 June 2005

Product	Standard
Continuous emission monitors	Environment Agency MCERTS scheme
Continuous ambient air quality monitors (excluding open path instruments)	Performance standards for gaseous emissions, particulates, temperature, pressure and flow rate
Continuous water monitors	Performance standards for SO <sub>2</sub> , NO <sub>x</sub> , CO, O <sub>3</sub> , PM <sub>10</sub> , PM <sub>2.5</sub> , Metals, Benzene and PAH's
Functional safety of electrical/electronic/programmable electronic safety-related systems covering process hardware	Performance standards for flow, turbidity, pH, total ammonia, chemical oxygen demand, total organic carbon, dissolved oxygen, total phosphorus, nitrate and total oxidized nitrogen, and automatic sampling equipment
Processes for assuring functional safety of electrical/electronic/programmable electronic safety related systems, covering all overall life cycle phases for systems up to and including SIL3 for use in oil, gas, chemical, petrochemical and pharmaceutical industries.	IEC 61508:Parts 1 & 2 IEC 61511:Part 1  IEC 61508-1 Clause 6: Management of Functional Safety, when assessed in compliance with the CASS Guide to Functional Safety Capability Assessment.
Certification to technically equivalent standards to those listed above is permitted.	
END	