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

**Title:** **Scope Extension Report for** **SIRIM QAS International Sdn Bhd, Malaysia, an Accepted Ex Certification Body (ExCB), within the IECEx Scheme 02 to include IEC 60079-31 Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure "t"**

**Introduction**

Scope Extension assessment for SIRIM QAS International Sdn Bhd, Malaysia, an Accepted Ex Certification Body, ExCB, within the IECEx System, Equipment Scheme 02, to include the following Standards within their scope.

*This document is hereby submitted for ExMC approval via correspondence using the IECEx on-line voting system. ExMC Members are requested to submit their vote via the IECEx On-line Ballot System by the closing date 2025 06 07*

*Please refer to OD 050 for guidance on the “IECEx On-line voting system.”*

***Chris Agius***

**IECEx Secretariat**

|  |  |
| --- | --- |
| **Address:****Level 17, Angel Place****123 Pitt Street****Sydney NSW 2000****Australia** | **Contact Details:****Tel: +61 2 46 28 4690****Fax: +61 2 46 27 5285****e-mail: info@iecex.com**[**http://www.iecex.com**](http://www.iecex.com) |

IEC System for certification to standards relating to equipment for use in Explosive Atmospheres (IECEx System)

IECEx Assessment Report Form, F-003

IECEx assessment report form for use by IECEx assessment teams to report assessments conducted according to the relevant IECEx assessment procedures of:

Operational Document IECEx OD 003-2 for the Certified Equipment Scheme

Operational Document IECEx OD 316-\* for the Certified Service Facility Scheme

Operational Document IECEx OD 422 for the IECEx Conformity Mark Licensing Scheme

Operational Document IECEx OD 501 for the Personnel Competence Scheme

IECEx ExCB assessment report for SIRIM

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

CONTENTS

[1 Assessment information 5](#_Toc196750423)

[1.1 Type of body covered by this assessment: 5](#_Toc196750424)

[1.2 Type of assessment: 5](#_Toc196750425)

[1.3 Details of body 5](#_Toc196750426)

[1.3.1 Country 5](#_Toc196750427)

[1.3.2 Name of body 5](#_Toc196750428)

[1.3.3 Name and title of nominated principal contact 5](#_Toc196750429)

[1.4 Assessment information 5](#_Toc196750430)

[1.4.1 Members of the assessment team 5](#_Toc196750431)

[1.4.2 Place(s) of assessment 5](#_Toc196750432)

[1.4.3 Assessment date(s) 5](#_Toc196750433)

[1.5 Application information and background information on the assessment 6](#_Toc196750434)

[1.6 Scopes 6](#_Toc196750435)

[1.6.1 ExCB scope for equipment certification scheme 6](#_Toc196750436)

[1.6.2 ExTL scope 6](#_Toc196750437)

[2 Common information 6](#_Toc196750438)

[2.1 Legal entity of body 6](#_Toc196750439)

[2.2 Financial support 6](#_Toc196750440)

[2.3 History 6](#_Toc196750441)

[2.4 Documentation 6](#_Toc196750442)

[2.4.1 Quality manual 6](#_Toc196750443)

[2.4.2 Procedures 6](#_Toc196750444)

[2.4.3 Work instructions 6](#_Toc196750445)

[2.4.4 Records (including test records where relevant) 6](#_Toc196750446)

[2.4.5 Document change control 6](#_Toc196750447)

[2.5 Confidentiality 7](#_Toc196750448)

[2.6 Communication with public and customers (Hard copy and Electronic) 7](#_Toc196750449)

[2.7 Recognitions and agreements 7](#_Toc196750450)

[2.8 Internal audit 7](#_Toc196750451)

[2.9 Management review 7](#_Toc196750452)

[2.10 Contracting, subcontracting and witness testing 7](#_Toc196750453)

[2.10.1 Contracting 7](#_Toc196750454)

[2.10.2 Subcontracting 7](#_Toc196750455)

[2.10.3 Off-site and Witness testing 7](#_Toc196750456)

[2.11 Training and competence 7](#_Toc196750457)

[2.12 Complaints and appeals (including appeals to IECEx) 8](#_Toc196750458)

[2.13 Impartiality 8](#_Toc196750459)

[2.14 Active involvement in development of Decision Sheets 8](#_Toc196750460)

[2.15 Special facts to be noted 8](#_Toc196750461)

[2.16 Supporting documentation 8](#_Toc196750462)

[2.17 Recommendations 8](#_Toc196750463)

[3 ExCB for IECEx Certified Equipment Scheme 9](#_Toc196750464)

[3.1 Assessment references 9](#_Toc196750465)

[3.1.1 General references 9](#_Toc196750466)

[3.1.2 Additional references applied for this assessment 9](#_Toc196750467)

[3.2 Candidate ExCB persons interviewed 9](#_Toc196750468)

[3.3 Associated ExTL(s) 9](#_Toc196750469)

[3.4 Associated certification functions 10](#_Toc196750470)

[3.5 National marks and certificates 10](#_Toc196750471)

[3.6 Standards accepted 10](#_Toc196750472)

[3.7 National differences to IEC standards 10](#_Toc196750473)

[3.8 10](#_Toc196750474)

[3.8.1 Names, titles and experience of the senior executives 10](#_Toc196750475)

[3.8.2 Name, title and experience of the quality management representative 10](#_Toc196750476)

[3.8.3 Name and title of signatories for certification 10](#_Toc196750477)

[3.8.4 Other employees in ExCB activity 10](#_Toc196750478)

[3.9 Organizational structure 11](#_Toc196750479)

[3.10 Indemnity insurance 11](#_Toc196750480)

[3.11 Resources 11](#_Toc196750481)

[3.12 Committees (such as governing or advisory boards) 11](#_Toc196750482)

[3.13 Certification operations 11](#_Toc196750483)

[3.13.1 National approval/certification methods 11](#_Toc196750484)

[3.13.2 Certification policy 11](#_Toc196750485)

[3.13.3 Application for certification 11](#_Toc196750486)

[3.13.4 Certification decision 11](#_Toc196750487)

[3.13.5 Suspension and cancellation of certificates 11](#_Toc196750488)

[3.14 Certificates issued 11](#_Toc196750489)

[3.15 National accreditation 11](#_Toc196750490)

[3.16 Assessment of manufacturers and issue of QARs 12](#_Toc196750491)

[3.17 Comments (including issues found during assessment) 12](#_Toc196750492)

[4 Annexes 13](#_Toc196750493)

[Annex A Scope for IECEx Certified Equipment Scheme 14](#_Toc196750494)

[A.1 Current standards 14](#_Toc196750495)

[Annex B Overall Organisation Chart 15](#_Toc196750496)

[Annex C Organisation Chart of ExCB 16](#_Toc196750497)

# Assessment information

## Type of body covered by this assessment:

|  |  |
| --- | --- |
| ExCB for IECEx Certified Equipment Scheme | [x]  |
| ExTL for IECEx Certified Equipment Scheme | [ ]  |
| ATF for IECEx Certified Equipment Scheme | [ ]  |
| ExCB for IECEx Certified Service Facilities Scheme | [ ]  |
| ExCB for IECEx Conformity Mark Licensing System | [ ]  |
| ExCB for IECEx Certification of Personnel Competency Scheme | [ ]  |

NOTE 1 ExCB - IECEx Certification Body

NOTE 2 ExTL - IECEx Testing Laboratory

 NOTE 3 ATF - Additional Testing Facility

## Type of assessment:

|  |  |
| --- | --- |
| Pre-assessment for candidate body | [ ]  |
| Initial assessment for candidate body | [ ]  |
| Surveillance  | [ ]  |
| Re-assessment  | [ ]  |
| Scope extension | [x]  |

## Details of body

### Country

Malaysia

### Name of body

SIRIM

### Name and title of nominated principal contact

|  |  |  |
| --- | --- | --- |
| Name | Title | E-mail address |
| Ts. ARIZA BINTI MOHD YUSOF (Mrs) | HeadTechnical Section (TECS) | arizamy@sirim.my |

## Assessment information

### Members of the assessment team

|  |  |
| --- | --- |
| Name  | Role  |
| Dr Jim Munro  | IECEx Lead Assessor |

### Place(s) of assessment

|  |  |
| --- | --- |
| Assessment was done remotely |  |

### Assessment date(s)

4 March 2025

## Application information and background information on the assessment

As both ExTLs with which SIRIM works have IEC 60079-31 in their scope and this scope extension was for an ExCB, the IECEx Executive Secretary agreed this assessment could be done remotely.

## Scopes

### ExCB scope for equipment certification scheme

The existing scope for the ExCB is shown in Annex A with the proposed scope extension in bold.

NOTE 1 Unless otherwise indicated, earlier editions of standards (even if with a different number) are considered to be covered in the above scope for the purposes of the assessment.

NOTE 2 The list highlights any extension of scope in the list above for new standards or later editions of standards already in scope.

### ExTL scope

SIRIM works with two ExTLs, both of them already having IEC 60079-31 in their scope.

# Common information

## Legal entity of body

Not applicable for scope extension.

## Financial support

Not applicable for scope extension.

## History

Not applicable for scope extension.

## Documentation

### Quality manual

There is no change in the Quality Manual in relation to the extension of scope.

### Procedures

Procedures and forms revised to include IEC 60079-31 or dusts aspects are:

1. Master list for IECEx Certified Equipment Scheme Procedures, dated 17 February 2025
2. Application Form for IECEx Certified Equipment Scheme (EQP/FOR/01-1), dated 17 February 2025
3. Application Form for IECEx Unit Verification (EQP/FOR/05-1), dated 17 February 2025
4. Contract Review Form for Unit Verification (EQP/FOR/05-3), dated 17 February 2025

Updating of forms was done to remove reference to temperature class for Group III as it is not relevant.

### Work instructions

There are no relevant work instructions.

### Records (including test records where relevant)

Not applicable for scope extension.

### Document change control

Not applicable for scope extension.

## Confidentiality

Not applicable for scope extension.

## Communication with public and customers (Hard copy and Electronic)

Not applicable for scope extension.

## Recognitions and agreements

Not applicable for scope extension.

## Internal audit

Not applicable for scope extension.

## Management review

1. Management Review Procedure (CQS/PRO/09)

There has not been a meeting since the scope extension request was made.

## Contracting, subcontracting and witness testing

### Contracting

SIRIM makes use of some external contract staff and three of these have been assigned competency for IEC 60079-31. Two of the contract staff were interviewed during the assessment.

### Subcontracting

There is no subcontracting.

### Off-site and Witness testing

Not applicable.

## Training and competence

SIRIM provided the following information on training and competence:

1. Training on IECEx 60079-31 and other dust related standards was carried out on 23 January 2025
2. SIRIM provided a List of Qualified Personnel for the IECEx Equipment Scheme (IECEx 02)
3. A matrix of Competency for the IECEx 02 Certified Equipment Scheme was provided for:
4. Muhamad Kamal Bin Sabran
5. Muhammad Azhar Bin Md Aris
6. Mohd Hamizi Bin Mohd Samsi
7. Abd Manan Bin Ismail
8. Umar Zakir Bin Ahmad
9. Ir. Chan Chee Ying

As a sample check of the competencies assigned by SIRIM, five out of the six staff deemed by SIRIM as competent were interviewed and found to have adequate competency for ExCB staff for the standard for the roles they were assigned within the ExCB.

Details of staff competencies are included in the site assessment report.

## Complaints and appeals (including appeals to IECEx)

Not applicable for scope extension.

## Impartiality

Not applicable for scope extension.

## Active involvement in development of Decision Sheets

Not applicable for scope extension.

## Special facts to be noted

None.

## Supporting documentation

Copies of additional supporting information for this assessment have been provided to the applicant and the IECEx Secretariat. These are included in a site assessment report or provided separately and include:

* Information on competencies
* Assessor’s notes

## Recommendations

Based on the assessment performed on 4 March 2025, SIRIM is recommended for the scope extension for IEC 60079-31 in the IECEx scheme as:

* An ExCB in the IECEx Certified Equipment Scheme

|  |
| --- |
| Dr Jim Munro  |
| IECEx Lead Assessor |

Date: 6 April 2025

# ExCB for IECEx Certified Equipment Scheme

## Assessment references

### General references

1. IECEx 02 IECEx Certified Equipment Scheme covering equipment for use in explosive atmospheres – Rules of Procedure
2. IECEx OD003-2 Assessment, surveillance assessment and re-assessment of ExCBs and ExTLs operating in the IECEx 02, IECEx Certified Equipment Scheme
3. ISO/IEC 80079-34 Explosive atmospheres – Part 34: Application of quality systems for equipment manufacture
4. IECEx OD 009 Issuing of CoCs, ExTRs and QARs
5. IECEx OD 025 Guidelines on the Management of Assessment and Surveillance programs for the assessment of Manufacturer’s Quality Systems in accordance with the IECEx Scheme
6. IECEx OD 026 IECEx Certified Equipment Scheme – Guidelines for the qualification of Lead Auditor and Auditors, in accordance with the IECEx System
7. ISO/IEC 17065 General requirements for bodies operating product certification systems Conformity assessment — Requirements for bodies certifying products, processes and services
8. IECEx OD 107 Harmonised check list for certification bodies ISO/IEC 17065
9. IECEx OD 060 IECEx Guide for Business Continuity – Management of Extraordinary Circumstances or Events Affecting IECEx Certification Schemes and Activities
10. IECEx Technical Capability Document (TCD)
11. ExTAG decision sheets (DSs)

NOTE The latest editions of the above documents were applied, unless otherwise specified

### Additional references applied for this assessment

No additional references were relevant for this assessment.

## Candidate ExCB persons interviewed

13 people were present for the opening and closing meetings. Details of those are included in the site assessment report. Additional people were contacted during the process of the assessment to interview for competencies. The following are the key people for the assessment, including those interviewed to check competency.

|  |  |
| --- | --- |
| Name | Position |
| Ts. Ariza Binti Mohd Yusof | Head, Technical SectionProduct Certification and Inspection Department |
| Mohd Hamizi  | Auditor, ExTR Reviewer, QAR Reviewer and COC Reviewer |
| Muhamad Kamal  | Auditor, ExTR Reviewer, QAR Reviewer and COC Reviewer |
| Muhammad Azhar  | Auditor, ExTR Reviewer, QAR Reviewer and COC Reviewer |
| Abd Manan Bin Ismail  | Qualified Technical Experts |
| Umar Zakir Bin Ahmad | Qualified Technical Experts |

## Associated ExTL(s)

1. Karandikar Laboratories Pvt. Ltd., India
2. Technology Institution of Industrial Safety (TIIS), Japan

## Associated certification functions

Not applicable for scope extension.

## National marks and certificates

Not applicable for scope extension.

## Standards accepted

See clause 1.6 of this report

## National differences to IEC standards

National differences to IEC standards are those for the country differences listed in the latest version of the IECEx System Bulletin. But it was noted that Malaysia needs to input their differences for the online Bulletin.

Organisation *Secretariat note:*

*The Secretariat is following this up with SIRIM*

##

### Names, titles and experience of the senior executives

|  |  |  |
| --- | --- | --- |
|  Name | Title | Experience (years) |
| Ts. Md. Adha Bin Katni@Rahmat  | Acting Chief Executive Officer  | >20 years |
| Fauziah Binti Fadzil | Senior General Manager | >20 years |
| Muhamad Kamal Bin Sabran | Head of Electrical & Electronic Certification and Inspection Section 2 (ECIS 2) | >20 years |

### Name, title and experience of the quality management representative

|  |  |  |
| --- | --- | --- |
| Name | Title | Experience (years) |
| Ts. Ariza Binti Mohd Yusof | Head, Technical SectionProduct Certification and Inspection Department | >20 years |
| Fauziah Binti Ahmad | Head, Quality, Occupational Safety, Health & Environment Section (QOSHE) | >20 years |

### Name and title of signatories for certification

|  |  |  |
| --- | --- | --- |
|  Name | Title | Comments |
| Muhammad Azhar Bin Md. Aris | Group Leader and auditor | 10 years in Ex |
| Mohd Hamizi Bin Mohd Samsi | Group Leader and auditor | 10 years in Ex |

### Other employees in ExCB activity

The following work as external contractors as technical experts.

|  |  |  |
| --- | --- | --- |
| Name | Title | Experience in Ex (years) |
| Abd Manan Ismail | External Technical Expert | >20 years |
| Umar Zakir Bin Ahmad  | External Technical Expert | >20 years |
| Ir. Chan Chee Ying | External Technical Expert | >20 years |

## Organizational structure

See Annex B and Annex C

## Indemnity insurance

Not applicable for scope extension.

## Resources

SIRIM has the appropriate resources of competent staff, appropriate procedures and facilities to be able to operate as an ExCB with the proposed scope extension.

Some contract staff are used with these are managed under the SIRIM quality management system, including assignment of competencies. All senior staff are SIRIM employees.

## Committees (such as governing or advisory boards)

Not applicable for scope extension.

## Certification operations

### National approval/certification methods

Not applicable for scope extension.

### Certification policy

Not applicable for scope extension.

### Application for certification

The application forms for certification were updated to include IEC 60079-31 and other information relevant to that standard. Some modifications to the forms were identified as necessary during the assessment. This was subsequently resolved to the satisfaction of the assessor.

### Certification decision

Personnel involved in making the certification decision have relevant competency of this standard.

### Suspension and cancellation of certificates

Not applicable for scope extension.

## Certificates issued

One certificate is in the process of being drafted for a project and will be issued once the scope extension is received.

## National accreditation

SIRIM do not hold national accreditation certification for ISO/IEC 17065 and hence are subject to annual surveillance.

## Assessment of manufacturers and issue of QARs

A QAR had been issued by SIRIM that included IEC 60079-31, but as a result of an issue raised at the assessment, this was subsequently revised online to delete IEC 60079-31. SIRIM have committed to issuing a new QAR with IEC 60079-31 included once it is in their scope. This has addressed the issue raised to the satisfaction of the assessor.

## Comments (including issues found during assessment)

Some issues were raised during the assessment. Details of these are included in the report above. All those that related to the proposed scope extension of SIRIM in its role as an ExCB were resolved to the satisfaction of the assessor.

#  Annexes

See Contents.

1. Scope for IECEx Certified Equipment Scheme
	1. Current standards

| Number  | Title  | Comments |
| --- | --- | --- |
| IEC 60079-0 Edition 7.0 | Explosive atmospheres - Part 0: Equipment - General requirements  |  |
| IEC 60079-1Edition 7.0 | Explosive atmospheres - Part 1: Equipment protection by flameproofenclosures “d” |  |
| IEC 60079-2 Edition 6.0 | Explosive atmospheres - Part 2: Equipment protection by pressurized enclosure “p’ |  |
| IEC 60079-7Edition 5.1 | Explosive atmospheres - Part 7: Equipment protection by increasedsafety "e" |  |
| IEC 60079-11Edition 7.0 | Explosive atmospheres - Part 11: Equipment protection by intrinsic safety “i” |  |
| IEC 60079-13Edition 2.0 | Explosive atmospheres - Part 13: Equipment protection by pressurized room "p" and artificially ventilated room "v" |  |
| IEC 60079-15Edition 5.0 | Explosive atmospheres – Part 15: Equipment protection by type of protection "n" |  |
| IEC 60079-18Edition 4.1 | Explosive atmospheres – Part 18: Equipment protection by encapsulation “m” |  |
| IEC 60079-25Edition 3.0 | Explosive atmospheres – Part 25: Intrinsically safe electrical systems |  |
| **IEC 60079-31****Edition 3.0** | **Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure "t"** | **Scope extension which is recommended for inclusion in the SIRIM ExCB scope.**  |
| IS0 80079-36Edition 1.0 | Explosive atmospheres - Part 36: Non-electrical equipment for explosive atmospheres – Basic method and requirements |  |
| ISO 80079-37Edition 1.0 | Explosive atmospheres - Part 37: Non-electrical equipment for explosive atmospheres – Non electrical type of protection constructional safety ”c” control of ignition source ”b”, liquid immersion ”k” |  |
| IEC TS 60079-46Edition 1.0 | Explosive atmospheres – Part 46 - Equipment assemblies |  |

1. Overall Organisation Chart



1. Organisation Chart of ExCB

