



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

IECEx ASSESSMENT REPORT

Title: Assessment Report for *SIRIM QAS International Sdn Bhd, Malaysia* to become an Accepted Ex Certification Body (ExCB) for the IECEx 05 Certification of Personnel Competence Scheme (CoPC)

Introduction

This document provides a Report from the IECEx Assessment Team following a combination of on-site and off site assessments of SIRIM QAS International Sdn Bhd, Malaysia for acceptance as an IECEx Certification Body (ExCB) for the IECEx 05 CoPC Scheme.

ExMC Members are requested to consider this Report and the Recommendation of the IECEx Assessment Team for the acceptance of SIRIM QAS International Sdn Bhd as an ExCB for the IECEx 05 Scheme subject to the conditions as given in the report and return the voting form by the closing date of **14 June 2013**

Chris Agius

IECEx Secretariat

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ASSESSMENT REPORT

**BODY UNDER
ASSESSMENT:**

SIRIM QAS International Sdn. Bhd.
1, Persiaran Dato' Menteri,
Section 2, P.O. Box 7035,
40700 Shah Alam,
Selangor Darul Ehsan, Malaysia

**SITE(S)
ASSESSED:**

SIRIM QAS International Sdn. Bhd.
1, Persiaran Dato' Menteri,
Section 2, P.O. Box 7035,
40700 Shah Alam,
Selangor Darul Ehsan, Malaysia

and

INSTEP Campus, PETRONAS Technical Training Sdn. Bhd
Lot 9764, Mukim Batu Rakit, 21020 Kuala Terengganu
Terengganu Darul Iman, Malaysia

**IECEX SITE ASSESSMENT
TEAM:**

Mr Ralph Wigg – Lead Assessor
Mr Allan Ogden – Peer Assessor

**REPRESENTATIVE/S OF
BODY:**

Tn. Hj. Basori bin Haji Selamat – Senior General Manager
Harman bin Alang Kasim- Section Head, ECIS
Chen Seng Hock – Section Head TECS
Azlan bin Adnan – Section Head, SMBD
Additional SIRIM, Instep and Contract personnel were in attendance

**DATE(S) OF SITE
ASSESSMENT:**

5th, 6th & 7th November, 2012



IECEX 05 Certification of Personnel Competence Scheme

ASSESSMENT REPORT of

NEW IECEX APPLICANT BODY

EXISTING IECEX CERTIFICATION BODY (ExCB)

ASSESSMENT TYPE:	ATTACHMENTS	No. of Pages
Application:	Application Form ExMC/570/Q	3
Assessment duration:	3 Day on-site 5 th , 6 th & 7 th November 2012 plus pre and post off-site assessments	
RECOMMENDATION BY IECEX ASSESSOR(S) (Select one item only)	<input checked="" type="checkbox"/> That Acceptance be granted <input type="checkbox"/> That Acceptance be withheld/suspended <input type="checkbox"/> That Acceptance continues <input type="checkbox"/> That Acceptance be granted/continued conditional on Non Compliance/Matters raised, having agreed corrective action and time scales to rectify the System within and agreed time agreed by the Assessors	

SIRIM QAS International Sdn Bhd SCOPE ASSESSED

SIRIM QAS International Sdn Bhd have been assessed according to the requirements of IECEX 05 – Certification of Personnel Competence [CoPC] for the following Units of Competency:

Unit Ex 001 – Apply basic principles of protection in explosive atmospheres

Unit Ex 003 – Install explosion-protected equipment and wiring systems



SECTION 1. GENERAL INFORMATION

1.1 Name of Body:

SIRIM QAS International Sdn. Bhd.
1, Persiaran Dato' Menteri,
Section 2, P.O. Box 7035,
40700 Shah Alam,
Selangor Darul Ehsan, Malaysia

1.2 CURRENT IECEX PARTICIPATION:

SIRIM QAS International Sdn Bhd is an existing ExCB for the following IECEX Scheme:
IECEX Service Facilities Scheme (IECEX 03)

1.3 DETAILS OF ASSESSMENT TEAM: 0.

Mr Ralph Wigg – IECEX Assessment Team Leader (AU)
Mr Allan Ogden – Peer Assessor (GB, Baseefa)

1.4 DATES OF ASSESSMENT:

The on-site assessment visit was conducted on 5th, 6th & 7th November 2012 plus off site assessments both prior and following the on-site visit.

1.5 LOCATION OF ASSESSMENT:

The SIRIM QAS International Sdn Bhd location as stated in 1.1 above along with the examination facilities located at the premises of INSTEP Campus, Terengganu utilising a formal agreement.

1.6 SIRIM QAS International Sdn Bhd RESOURCES FOR IECEX 05 CERTIFICATION ACTIVITIES:

The Assessment team have assessed and verified the availability of competent technical staff, support staff and facilities to undertake the full scope of IECEX 05 certification activities for the units Ex 001 & Ex 003.



SECTION 2. ASSESSMENT - SUMMARY OF RESULTS

IECEX CoPC SCHEME REQUIREMENTS		Findings	COMMENTS AND REFERENCE TO ATTACHMENTS	
IECEX 05 requirements	Confirmation of Scope of IECEX Acceptance or scope of application, (for new applicant)	COMPLIES	SIRIM Scope cross refers to the Scope of IECEX05 and has embraced all competencies as given in OD504 associated with Units Ex 001 & Ex 003	
	Confirmation that details in original application are still current (for new application)	COMPLIES	The details of the application were discussed and confirm as correct.	
	Confirm currency and scope of accreditation (ISO/IEC 17024) applicable	COMPLIES	SIRIM do not have accreditation to ISO/IEC 17024. SIRIM confirmed that the assessment for these requirements were to be included. The assessment site visit has verified compliance.	
	Clause 9.1	(a) in a participating country	COMPLIES	Malaysia is a participating country in the IECEX System
		(b) operate recognized certification scheme	COMPLIES	SIRIM already participate in the IECEX Service Facility Certification Scheme
		(c) competence demonstrated by assessment	COMPLIES	IECEX Assessment included technical interviews and examination of SIRIM staff for competence to evaluate to OD 504 for Units Ex001 & Ex003.
	Assessment facilities considered by Assessment team to be appropriate and adequate for assessment of Units, according to OD 504?	COMPLIES	The SIRIM Competence Procedures define the requirements for the knowledge skills assessment and examination including the procedures for conducting assessment and examinations at facilities other than the SIRIM Office. These were assessed by the assessment team and found to be satisfactory subject to the review of the initial sample assessment. See summary of results for OD504 for further detail. Completed, refer to item 8 of Section 3 of this report	



IECEX CoPC SCHEME REQUIREMENTS	Findings	COMMENTS AND REFERENCE TO ATTACHMENTS
<p>Confirmation of which location is the official ExCB location, where more than 1 location is identified?</p> <p>an official ExCB location is one where the following are conducted:</p> <ul style="list-style-type: none"> - applications received, - contract review (review of application) - assignment of application to ExCB staff - review of exam/assessments - decision to issue Certificate <p>(Contact IECEx Secretary for any questions)</p>	COMPLIES	<p>SIRIM QAS International Sdn. Bhd., 1, Persiaran Dato' Menteri, Section 2, P.O. Box 7035, 40700 Shah Alam, Selangor Darul Ehsan, Malaysia, is confirmed as the official ExCB location.</p> <p>And the examination facilities are located at INSTEP Campus, PETRONAS Technical Training Sdn. Bhd, Lot 9764, Mukim Batu Rakit, 21020 Kuala Terengganu, Terengganu Darul Iman, Malaysia</p>
<p>ISO/IEC 17024 Assessment–Satisfactorily Completed (for bodies without acceptable national Accreditation)</p>	COMPLIES	<p>At the site assessment it was noted that some items were not fully covered within the SIRIM procedures. This has subsequently been rectified.</p> <p>The assessment team confirms that the SIRIM Quality Manual and associated Procedures, forms and Instructions comply with all aspects of ISO/IEC 17024 and IECEx requirements.</p>



IECEx Operational Document Requirements	OD502	COMPLIES	<p>The initial assessment identified a lack of procedures regarding the language for the assessment and sufficiency of evidence. Amended procedures have been submitted and re-assessment. This has been completed and verified as meeting all the requirements given in OD502</p>
	OD 503	COMPLIES	<p>At the initial site assessment a number of issues were identified as not yet being complete. These primarily related to pre-requisite requirements, procedures for setting & checking practical assessments. The requirements for questions for each Unit were found to be incomplete and not mapped to the outcome criteria of OD504 (see comment to OD504). Procedures have been finalized and documented.</p> <p>This has been completed and verified. With the addition of these changes compliance with OD503 and OD 504 has now been verified.</p>
	OD 504 (Review of ExCB assessment criteria including question bank, mapped against Competency Units of OD 504)	COMPLIES	<p>The original application from SIRIM covered Units Ex001, Ex003, Ex006, Ex007, Ex008 and Ex009. At initial assessment the questions for both the theory and practical assessments were found to be not mapped and incomplete for all Units. SIRIM have subsequently reduced the Scope of Application to Units Ex001 and Ex003 and following additional work these assessments have been subject to a re-submission and are now verified as acceptable.</p>



Additional Remarks concerning requirements (if any)

During the site assessment technical interviews were conducted with several examiners appointed by SIRIM QAS International Sdn Bhd. Following the interviews at the site assessment the examiners were found to be suitable for the specific unit of competence for which they have been accepted. After some amendments to procedures this is now considered to verify the SIRIM examiners appointment processes included within the Policies and Procedures.

The procedures regarding suitable facilities to be made available for the candidate assessment processes adequately cover the requirements of the IECEX CoPC Scheme. SIRIM will use the premises the INSTEP Campus, Terengganu, utilising a formal agreement.

The SIRIM Question Bank has been separately developed and contains sufficient questions to satisfy the outcome criteria of OD504 and the required number given in OD503 for both the knowledge and skills assessments. The equipment provided for the skills assessments covers all protection techniques and product types. The procedures also allow for interchange with the IECEX Question data bank when it becomes available.

SIRIM do not include training as part of their offering for the Hazardous Area industry and have clear procedures in place to ensure that the examinations and decisions on certification do NOT involve persons who have trained candidates including a section on Independence, Impartiality and Integrity, which also covers any conflicts with training. The assessment team is satisfied with the separation of the assessment process from training.

The Management System Framework Manual for the SIRIM QAS International Sdn Bhd has been provided 'in-confidence' and not shown here.



Conclusion of the Assessment and Recommendations of the Assessment Team

The purpose of the site assessment was to verify compliance with the requirements of the IECEx Scheme for the initial and on-going acceptance of an Ex Certification Body (ExCB). The site assessment forms part of the overall evaluation of the body by the IECEx Management Committee, ExMC and was conducted in accordance with the IECEx Scheme Assessment Procedures, IECEx OD 501. Report of the on-site assessment team is as follows:

The Assessment Team findings indicate SIRIM QAS International Sdn Bhd has Policies, Procedures and Operational requirements in place that verify compliance with ISO/IEC 17024 and the remaining IECEx CoPC Scheme Rules and Operational Documents. As SIRIM have not been operating a Certification of Personnel Competence Scheme and the procedures are new it is recommended that the selection of at least three of the first assessments conducted by SIRIM be reviewed by the assessment team prior to issue. A surveillance assessment will be required each 18 months to verify the operation is compliant with both the ISO/IEC 17024 and the IECEx CoPC Scheme requirements. It is recommended that the initial surveillance assessment should also focus on the selection of assessors, the facilities/materials for the skills assessment being used, suitability of examination requirements and separation from training.

The Assessment Team recommend SIRIM QAS International Sdn Bhd be accepted as a CoPC ExCB within the IECEx System.

R. Wigg
IECEx Assessment Team Leader
27 April 2013

SECTION 3

Issues Raised by IECEX Assessment Team and Subsequent Responses/Actions

The following shows key issues that were raised at the initial site assessment and included here with the resolutions, together with subsequent actions.

ITEM	ISSUES RAISED AT INITIAL ASSESSMENT	RESPONSE FROM SIRIM	ASSESSMENT TEAM COMMENT
1	Clarification of contracting/subcontracting/o outsourcing. Separate requirements for evaluation/assessment of the facilities from the requirements for the assessment of persons as technical experts or examiners..	Procedures rewritten	Altered procedures submitted Resolved. No further action required
2	Policies and Procedures for the appointment of technical experts and invigilators not clear.	SIRIM will amend the procedures for the qualifying and appointment.	Revisions of CoPC/PRO/08, CoPC/PRO/03 & CoPC PP provided Resolved. No further action required.
3	PCAR not included in procedures	Will add PCAR	CoPC PP submitted with PCAR added. Resolved. No further action required
4	The permission to use the SIRIM logo is not clear	Procedures to be changed to not allow use of SIRIM Logo	Modified documents CoPC PP & CoPC/FOR/05-1 to include these requirements received. Resolved. No further action required
5	More information to be included to achieve consistency.	Forms CoPC/FOR/02-1.xxx were added to include evaluation of pre-requisite requirements for each unit of competency and the evaluation is now reviewed by the Group Leader and approved by the Head to achieve consistency.	Revised documents submitted. Resolved. No further action required
6	Requirements for pre requisites need to be included in CoPC/FOR/01-2	Requirements included	Revised CoPC/FOR/01-2 submitted Resolved. No further action required
7	Knowledge assessment. The following items need to be addressed. • Insufficient questions for	SIRIM to review and update the knowledge and skills question bank in order to address the items raised.	SIRIM have reduced the scope of application to Units Ex001 and Ex003. Modified documentation and

	<p>all Units in application.</p> <ul style="list-style-type: none"> • There is no equivalent balance of questions for each type of protection. • Ambiguity of required answers to be addressed. • Mapping of questions to outcome criteria to be completed 		<p>questions have been received. The questions have been mapped according to the outcome requirements of OD504 and all outcomes are covered. In addition the required number of questions are per OD503 has been satisfied.</p> <p>Resolved. No further action required.</p>
8	<p>Practical assessments for Units Ex003, Ex007 and Ex008 require further consideration to allow for further protection concepts and protection types and constructions to be considered. Practical questions need to be validated with respect to protection types, equipment types, groups and voltages. Currently the number of questions is insufficient to cover this requirement. There is no procedure to check and validate assessment prior to commencement of assessment.</p>	<p>SIRIM to review and update the skills assessment requirements and include suitable material.</p>	<p>Scope of Application reduced and only Ex003 requires a practical assessment. Modified specifications have been received and considered to satisfy the requirements for the skills testing for this Unit. This includes a review of the equipment protection techniques and product types to fulfill all requirements.</p> <p>Resolved. No further action required</p> <p>Recommendation: A selection of a minimum of three assessments from the initial assessments undertaken by SIRIM for both Units be reviewed by the assessment team.</p>