

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

TITLE: Re-assessment Report for the continued acceptance of QPS Evaluation Services Inc. as an Accepted Certification Body (ExCB)

Circulation to: Members of the IECEx Management Committee, ExMC

INTRODUCTION

In accordance with the 5 year re-assessment plan for the surveillance and monitoring of bodies within the IECEx System, the following document contains the IECEx Re-assessment Report for the continued acceptance of QPS Evaluation Services Inc. as an Accepted IECEx Certification Body (ExCB)

This report is hereby submitted for endorsement during the ExMC 2014 the Hague, Netherlands, Meeting.

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QPS Evaluation Services Inc. IECEx Certification Body (ExCB)

Type of Assessment:

Initial Assessment for Candidate ExCB

Re-Assessment of ExCB

X

Scope Extension of ExCB

1. OBJECT AND FIELD OF APPLICATION

1.1. Country:

CANADA

1.2. Name of Accepted ExCB

QPS Evaluation Services Inc.

1.3. Members of the Assessment Team

IECEx Team Leader: Thierry Houeix Expert Assessor: Allan Ogden

1.4. Place and Date of Assessment

81 Kelfield St, Unit 8, Toronto, Ontario M9W 5A3 26 - 29 June 2012

1.5. Assessment References

- i) IECEx 02:2010 IECEx 02 Scheme rules of procedure
- ii) Ex OD 003 IECEx Assessment procedures
- iii) Ex OD 005-1 Quality System requirements for manufacturers
- iv) Ex OD 009 Issuing of CoCs, ExTRs and QARs
- v) Ex OD 025 Management of assessment and surveillance programs for manufacturers
- vi) ISO/IEC Guide 65:1996
- vii) Ex OD 17 Drawing and documentation guidance
- viii) IECEx 03:2010 Ex service facility certification
- ix) Ex OD 016/V1 Assessment Procedures for IECEx 03 Certification Bodies
- x) Ex OD 015/V2 Technical Requirements for IECEx Service Facilities involved in repair, overhaul and modification of Ex equipment
- xi) Ex OD 014/V2 Quality Management System requirements for IECEx Service Facilities
- xv) IECEx 05 IEC System for Certification to Standards for Electrical Equipment for Explosive Atmospheres (IECEx System) IECEx Scheme for Certification of Personnel Competencies for Explosive Atmospheres Rules of Procedure



- xvi) IECEx 05A Guidance and Instructions for Applicants to obtain a Certificate of Personnel Competence (CoPC)
- xvii) IECEx OD 501- Assessment procedures for IECEx acceptance of Certification Bodies (ExCBs) for the purpose of issuing and maintaining IECEx Certificates of Personnel Competencies (CoPCs)
- xviii) IECEx OD 502 Operational Document Application for an IECEx Certificate of Personnel Competencies (CoPC), documentation and information requirements
- xix) IECEx OD 503 Operational Document ExCB Procedures for issuing and maintaining IECEx Certificates of Personnel Competencies
- xx) IECEx OD 504 Specification for Units of Competency Assessment Outcomes

1.6. Scope of Application

Number	Title	Scope
60079-0 Edition 6	Explosive atmospheres - Part 0: Equipment - General requirements	Yes
60079-1 Edition 6	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"	Yes
60079-2 Edition 5	Explosive atmospheres - Part 2: Equipment protection by pressurized enclosure "p"	Yes
60079-5 Edition 3	Explosive atmospheres - Part 5: Equipment protection by powder filling "q"	Yes
60079-6 Edition 3	Explosive atmospheres - Part 6: Equipment protection by oil immersion "o"	Yes
60079-7 Edition 4	Explosive atmospheres - Part 7: Equipment protection by increased safety "e"	Yes
60079-11 Edition 6	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"	Yes
60079-13 Edition 1	Explosive atmospheres - Part 13: Equipment protection by pressurised room "p"	Yes
60079-15 Edition 4	Electrical apparatus for explosive gas atmospheres - Part 15: Construction, test and marking of type of protection "n" electrical apparatus	Yes
60079-18 Edition 3	Electrical apparatus for explosive gas atmospheres - Part 18: Construction, test and marking of type of protection encapsulation "m" electrical apparatus	Yes
60079-25 Edition 2	Explosive atmospheres - Part 25: Intrinsically safe electrical systems	Yes
60079-26 Edition 2	Explosive atmospheres - Part 26: Equipment with equipment protection level (EPL) Ga	Yes
60079-27 Edition 2	Explosive atmospheres – Part 27: Fieldbus intrinsically safe concept (FISCO)	Yes
60079-28 Edition 1	Explosive atmospheres - Part 28: Protection of equipment and transmission systems using	Not



Number	Title	Scope
	optical radiation	
60079-29-1 Edition 1	Explosive atmospheres - Part 29-1: Gas detectors - Performance requirements of detectors for flammable gases	Not
60079-30-1 Edition 1	Explosive atmospheres – Part 30-1: Electrical resistance trace heating - General and testing requirements	Yes
60079-31 Edition 2	Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure "t"	Yes
60079-35-1 Edition 1	Explosive atmospheres – Part 35-1: Caplights for use in mines susceptible to firedamp - General requirements - Construction and testing in relation to the risk of explosion	Yes
61241-0 Edition 1	Electrical apparatus for use in the presence of combustible dust - Part 0: General requirements	Yes
61241-1 Edition 1	Electrical apparatus for use in the presence of combustible dust – Part 1: Protection by enclosures "tD"	Yes
61241-4 Edition 1	Electrical apparatus for use in the presence of combustible dust – Part 4: Protection by pressurisation "pD"	Not
61241-11 Edition 1	Electrical apparatus for use in the presence of combustible dust – Part 11: Protection by intrinsic safety "pD"	Yes
61241-18 Edition 1	Electrical apparatus for use in the presence of combustible dust – Part 18: Protection by encapsulation "mD"	Not
62013-1 + 2 Edition 2	Caplights for use in mines susceptible to firedamp Part 1: General requirements - Construction and testing in relation to the risk of explosion	Yes

NOTE: During the site assessment visit QPS withdrew their initial scope extension request for IEC 60079-28 and IEC 60079-29-1 for future consideration.

1.7. Accepted ExCB Persons Interviewed

Name	Position
John Gulino	President
Nick Maalouf	Vice President
Jim Morrison	Vice President
Dave Adams	Manager, Ex Equip
Rob Kohuch	Sr. Eng. Ex Equip
Dori O'Kane	QA Manager

1.8. Legal Entity of the Accepted ExCB

QPS is a private, wholly owned Canadian Corporation incorporated under the laws of Canada and operates as a federally incorporated Canadian company. QPS advised that it does not



engage in the promotion or sale of any products, suppliers or vendors or any products tested and certified by QPS. It further advised that trade associations and clients of QPS have neither control nor influence over QPS policies or the employment security of its employees.

1.9. Associated Testing Laboratories

The QPS ExTL is integral with the ExCB.

1.10. Associated Certification Functions

In Canada, QPS is accredited by the Standards Council of Canada (SCC) as a Certification, Testing and Inspection Body with the right to certify products for the Canadian market. In the USA, QPS is accredited by the Occupational Safety and Health Administration (OSHA) as a Nationally Recognized Test Laboratory (NRTL), and by IAS (the International Accreditation Service). As such, QPS is authorized to certify products for the US market under either of the above mentioned accreditation systems.

1.11. National Marks and Certificates

For the Canadian market QPS provides the "cQPS" Mark of Conformity in accordance with the Canadian National accreditation criteria. For the US market QPS provides the "QPSus" Mark of Conformity in accordance with the applicable US accreditation criteria.

1.12. Financial Support

All QPS activities, including IECEx related work, are self-financed and funded from income derived from certification, testing and inspection fees charged to users of the service.

1.13. *History*

QPS was established in 1995, operating as an independent Agency performing factory followup inspections and Special Inspection/Field Evaluation services for Canadian Standards Association (CSA).

In 1998, QPS entered into a contractual agreement with Entela, Inc., a Certification Body accredited in the US and Canada as their exclusive Special Inspection and Field Evaluation Agency world-wide.

In 1999, QPS established a test laboratory to provide testing services for Entela, as well as for customers seeking CSA, UL and other NRTL certification.

In 2003, QPS expanded its test laboratory and obtained National accreditation from the Standards Council of Canada (SCC) as a Testing Organization for over 300 CSA, UL and IEC standards, including standards for products intended for use in hazardous locations. In the same year, QPS also obtained accreditation in the IECEE/CB Scheme as a CBTL for Entela for the following product categories: MED, TRON, ITE, OFF, MEAS, HOUS

In December 2004, QPS obtained national (SCC) accreditation as a Certification Body and in 2005, achieved full recognition of its Certification Mark and program by all Provincial and Territorial authorities across Canada.



In 2009, QPS received accreditation from IAS (International Accreditation Services) in the USA as a Certification Body and a Field Evaluation Agency for all electrical and electronic products.

In February 2011, QPS was granted NRTL (Nationally Recognized Testing Laboratory) status by OSHA (Occupational Health and Safety Administration) in the USA for a variety of standards, including standards for products intended for use in hazardous locations.

In April 2012, QPS also received recognition by the US Coast Guard for products used in hazardous locations.

Currently, QPS employs 70 people, and offers a full complement of certification, testing, inspection and CE Marking services (including ATEX Directive) and IECEx services covering a wide variety of electrical and electronic equipment for customers selling their products in Canada, USA, the EU and globally.

1.14. Standards Accepted

See clause 1.6 of this report

1.15. National Differences to IEC Standards

National differences to IEC standards are listed in the latest version of the IECEx Scheme Bulletin.

2. ORGANISATION

2.1. Names, Titles and Experience of the Senior Executives

Name	Title	Experience in Ex	Overall
John Gulino	President	6 years	34
Nick Maalouf	Vice President	9 years	36
Jim Morrison	Vice President	13 years	34
Dave Adams	Manager, Ex Equip	22 years	25
Rob Kohuch	Sr. Eng. Ex Equip	12 years	12

2.2. Name, Title and Experience of the Quality Management Representative

Name	Title	Experience in Ex	Overall
Dori O'Kane	QA Manager	6 years	30

2.3. Name and Title of Nominated Principal Contact

Name Title		Comments			
Nick Maalouf	Vice President	nmaalouf@qps.ca			

2.4. Name and Title of Signatories for Certification

Name	Title	Comments
Nick Maalouf	Vice President	nmaalouf@qps.ca
Alfonso Mattucci	QA Engineer	amattucci@qps.ca



2.5. Other Employees in ExCB activity

Name	Title	Responsibility and Experience in Ex
Jim Morrison	Vice President	ExTR/QAR Review, 30 years
Dave Adams	Manager, Ex Equipment	ExTR/QAR Review, 25 years
Rob Kohuch	Senior Engineer, Ex Equip	ExTR/QAR Review, 12 years
*Alenko Vranes	Project Holder (Pending)	ExTR/QAR Review, 10 years
Dori O'Kane	QA Manager	QAR Reviewer, 6 years
Alfonso Mattucci	QA Engineer	QAR Reviewer, 6 years

2.6. Organizational Structure

Refer to QPS Evaluation Services Inc. Organizational Chart in Annex A

2.7. Administration (including Indemnity Insurance)

2.7.1. Administrative Structure

Customer Service department provides the necessary administrative support.

2.7.2. Indemnity Insurance

QPS holds indemnity insurance from Lloyd's Underwriters (the Insurer) through Lloyd's approved Coverholder, South Western Insurance Group Limited; 703 Evans Avenue, Suite 203, Toronto, Ontario M9C 5E9; current policy period Jan 9, 2012 to January, 9, 2013; renewed annually.

3. RESOURCES

QPS Evaluation Services Inc. appears to have an adequate number of staff for the current level of business.

The laboratory and offices are located in an industrial unit which provides an adequate environment for the work. The testing equipment is suitable for the range of tests carried out in house.

4. COMMITTEES / Governing Board / Appeals / Advisory Board

The Governing Board consists of the President, the two Vice Presidents, and the company's legal counsel.

QPS uses two Advisory Boards as follows:

The Canadian Advisory Council on Electrical Safety (CACES) which is mandatory under the Canadian National accreditation system. Membership is comprised of regulators, manufacturers, and accredited certification bodies.

Certification & Testing Advisory Board: This independent board is formed by QPS. Its composition and terms of reference are outlined in Section 9 of the company's Operating Policy Manual. The board comprises representatives from industry, regulators, consumers, and users; and meets a once a year.



QPS does not maintain a separate board of appeals. However, QPS has an appeal process described in a General Operation Procedure GOP 09. No appeal has been made during the past five years.

5. CERTIFICATION OPERATIONS

5.1. National Approval/Certification Methods

QPS operates two certification programs, ISO Type 1 and ISO Type 3, which are described in the company's operating procedures manual (OPM). Both programs involve testing and evaluation of submitted products and issuance of a certificate of compliance granting the use of the QPS registered certification mark for compliant products. The mark is recognized in Canada and USA.

5.2. Certification Policy

The Certification Policy is described in Section 25 of the Quality Policy Manual (QPM). Additional policies and procedures are described in the Operating Procedures Manual (OPM). The IECEx certification policy and procedures are described in the General Operating Procedure GOP29. The certification policy and procedures were found to be in conformity with ISO/IEC Guide 65, IECEx 02, and IECEx 05.

5.3. Application for Certification

QPS issues a quote based on information supplied by the applicant as per a Request for Quote (RFQ) form which is available on QPS's website. Upon acceptance of the quote, the applicant is asked to sign a formal application form. The quote contains an estimate of the costs, service deliverables, applicable standards, and estimate of completion time. The quote/application process is described in General Operating Procedure GOP 11 (Contract Review).

5.4. Certification Decision

Decision on compliance of the product with the applicable standards is made by the Technical Certification Reviewer (TCR), in accordance with Certification Operating Procedure COP 01. For IECEx related work, QA conducts the required independent review of the entire IECEx project file and signs the IECEx Certificate of Compliance. The process is described in General Operating Procedure GOP 29.

5.5. Suspension and Cancellation of Certificates

The general rules for suspension of certificates are described in Certification Operating Procedure COP 10.



6. STATISTICS

6.1. Certificates Issued

Number of certificates issued under the IECEx, national or regional schemes in the preceding four years for each type of protection:

	I	2007	2008	2009	2010	2011	Total
60079-0	General requirement	0	1	2	5	5	13
60079-1	Flameproof	0	(1)	1	0	1 (1)	2 (2)
60079-2	Pressurization	0	0	0	0	0	0
60079-7	Increased safety	0	0	0	0	0	0
60079-11	Intrinsic Safety	0	(1)	(1)	2 (3)	2 (1)	4 (6)
60079-15	Non-sparking	0	0	0	0	0	0
60079-18	Encapsulation	0	0	0	0	0	0
60079-31 61241-1	Dust protected	0	0	(1)	(3)	0	(4)
62013	Cap lights	0	0	0	0	0	0

7. DOCUMENTATION

7.1. Quality Manual

QPS has in place a comprehensive, multi-tier Quality Assurance System based on the requirements of ISO/IEC Guide 65, ISO/IEC standard 17025, ISO/IEC Guide 17020, and the National accreditation criteria of Canada and the USA. The system is documented as follows:

- a) Section 1 Quality Policy Manual (QPM): It contains the quality system elements, and the company's overarching corporate quality policies, objectives, and commitment to quality.
- b) Section 2 Operating Procedures Manual (OPM): It contains operational policies, procedures, and practices pertaining to the various conformity assessment activities carried out by the company, including work performed within the IECEx Scheme. See 7.2 below for details
- c) Section 3 Quality Support Documents (QSDs): They consist of documents used in support of testing and certification activities such as application forms, checklists, test report forms, work instructions, service agreement, etc.

7.2. Procedures

QPS Evaluation Services Inc. has a very comprehensive range of procedures covering all aspects of the testing operations that were audited as part of this assessment, and are divided into three categories as follows:

- General Operating Procedures (GOPs)
- Lab Operating Procedures (LOPs)
- Certification Operating Procedures (COPs)

Where applicable each procedure has with it an associated test sheet for completion by the staff.

All the procedures required for IECEx operation are contained in General Operating Procedure GOP 29.



7.3. Work Instructions

See above

All the procedures required for IECEx operation are contained in GOP 29.

7.4. Records

Procedure for identification, collection, access, storage, maintenance and disposal of technical and quality records is described in General Operating Procedure GOP 14. Certification records are available on the QPS website www.qps.ca

7.5. Document Change Control

The document change control procedure is described in General Operating Procedure GOP 04 (Documentation Control).

8. CONFIDENTIALITY

The confidentiality procedure is described in General Operating Procedure GOP 02. Each employee and contract personnel must sign a confidentiality / impartiality agreement.

9. PUBLICATIONS

Publications are provided on the website of QPS <u>www.qps.ca</u> . Printed material is available upon request.

10. NATIONAL ACCREDITATION

QPS is accredited by the Standards Council of Canada as a Certification Body (ISO Guide 65), and as an Inspection Body (ISO/IEC 17020), with the right to certify products for the Canadian market and grant the use of the registered QPS certification mark. The scope of accreditation covers all electrical products and equipment, including equipment used in classified hazardous locations.

Annex B shows the Accreditation Certificate issued by the Standard Council of Canada. The latest annual audit was successfully performed in January 2012.

11. RECOGNITION AND AGREEMENTS

QPS participates in the IECEE CB Scheme as a CBTL. In addition, QPS has working agreements with the following certification bodies:

- FTZU, an ATEX Notified Body located in Czech Republic;
- ExAgency, an ATEX Notified Body located in Croatia;
- NCC, an IECEx ExCB located in Brazil;
- KOSHA, Korea Occupational Safety and Health Administration, an ExCB in Korea.

12. INTERNAL AUDIT AND PERIODIC MANAGEMENT REVIEW

Internal audits are done once a year for each type of operation. The Management review is also conducted annually.

Internal audit and management review are described in General Operating Procedure GOP 05 and GOP 10 respectively.

The latest internal audits took place in 2012. The records have been reviewed and found to be acceptable.

The latest management review took place in 2011.



13. SUBCONTRACTING, USE OF OTHER LABS AND USE OF OTHER LOCATIONS

There is presently no subcontracting. All tests are performed in the QPS location with own resources. However, they do not have the capability to do the Resistance to Light test in IEC 60079-0 and 61241-0 but have a subcontracting procedure (GOP13) that can be used if this is needed.

14. TRAINING

All staff employed are selected for qualifications and/or experience relevant to their responsibilities.

The training procedure is described in General Operating Procedure GOP 16. Training records are kept in the personnel file.

A "technical competency matrix" is used to identify qualified personnel for a given standard, include standards used to handle IECEx related work.

15. ASSESSMENT OF MANUFACTURERS AND ISSUE OF QARS

Procedure QSD340 addresses assessments of manufacturers. The report format is addressed in QSD340 and includes the all requirements from the IECEx Scheme requirements.

For IECEx certification scheme a set of documented procedures is in place to enable surveillance to be carried out in accordance with the criteria of the certification system. The requirements for manufacturing surveillance activities (including initial and ongoing inspection of product during manufacture, audit of quality system and audit of products) are detailed within the relevant scheme rules and in relevant procedures.

A number of QPS Evaluation Services Inc. QAR files were reviewed and seen to be satisfactory.

16. COMPLAINTS AND APPEALS (Including appeals to IECEx)

They have a general process in QPS Evaluation Services Inc. from external complaints defined in the following Certification Appeals Procedure:

- Complaints and appeal procedures are described in General Operating Procedure GOP 06 and GOP 09 respectively.
- For IECEx activities the appeal process is described in GOP 29.

This covers the complaints mechanism requirements of the ExCB and ExTL and found to comply with IECEx requirements.



17. SPECIAL FACTS TO BE NOTED

17.1. Supporting Documentation

Copies of additional supporting information for this assessment have been provided to the applicant and the IECEx Secretariat. These include:

- Details of issues raised and how these have been resolved.
- Checklist for ISO/IEC Guide 65

17.2. Certificate Files Reviewed

A review was made of files for the following certificates:

QPS Evaluation Services Inc. operates a certification procedure using "Technical Certification Reviewers". The Technical Certification Reviewer is an expert having competence in one or more functions within the conformity assessment process. The functions are: testing, verification of test reports, auditing and certification.

Personnel involved in IECEx activities are listed on a competence matrix (scope of standards against personnel and their functions). Evidence was given during the assessment that no infringement of independence occurs.

18. COMMENTS (Including issues found during assessment)

Only minor issues were found during the assessment and these were corrected prior to completion of the assessment.

19 RECOMMENDATION

Based on the assessment performed on 26 - 29 June 2012, QPS Evaluation Services Inc. is recommended for continued acceptance in the IECEx system as an IECEx Certification Body (ExCB) for the product certification scheme (IECEx 02) according to the scope of the standards listed in this document (including the extension of scope requested except IEC 60079-28 and IEC 60079-29-1). The scope extension of IEC 60079-28 and IEC 60079-29-1 requires an additional site assessment.

Thierry Houeix Alan Ogden Lead Assessor Expert Assessor

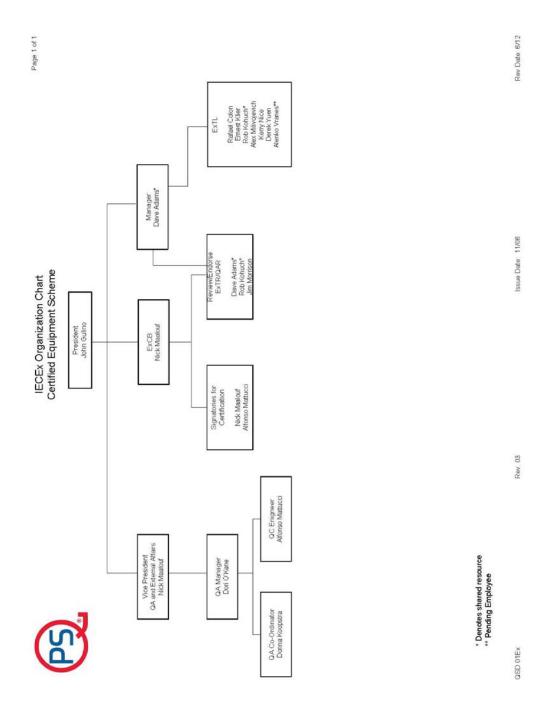
Date: 2014-01-21

List of Annexes:

- A. Organization Chart of the QPS IECEx Certified Equipment Scheme
- B. Accreditation Certificates; Certification, Inspection and Testing Body



Annex A Overall Organization Chart of QPS Evaluation Services Inc.





Annex B Accreditation Certificate for Product Certification

