



**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 the *CSA Group* as an
Accepted Certification Body (ExCB)**

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 ***CSA Group*** as an Accepted Certification Body (ExCB)

This report is issued for endorsement during the 2013 Fortaleza, Brazil Meeting.

Chris Agius
IECEx Secretariat

IECEx Secretariat Standards Australia Building 286 Sussex Street Sydney NSW 2000 Australia	Tel: +61 2 8206 6940 Fax: +61 2 8206 6272 Email: chris.agius@iecex.com
--	---



IECEx ASSESSMENT REPORT FOR CSA GROUP (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

CSA Group

1.3. Members of the Assessment Team

IECEx Team Leader: Ron Webb
Expert Assessor: Thierry Houeix

1.4. Place and Date of Assessment

178 Rexdale Boulevard,
Toronto, Ontario, Canada, M9W 1R3,
Date: August 28 - 30, 2012

1.5. Assessment References

- i) IECEx 02 - 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

1.6. Scope of Application

Number	Title	Scope
60079-0	Explosive atmospheres -	✓



Number	Title	Scope
Edition 6	Part 0: Equipment - General requirements	
60079-1 Edition 6	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"	✓
60079-2 Edition 5	Explosive atmospheres - Part 2: Equipment protection by pressurized enclosure "p"	✓
60079-5 Edition 3	Explosive atmospheres - Part 5: Equipment protection by powder filling "q"	✓
60079-6 Edition 3	Explosive atmospheres - Part 6: Equipment protection by oil immersion "o"	✓
60079-7 Edition 4	Explosive atmospheres - Part 7: Equipment protection by increased safety "e"	✓
60079-11 Edition 6	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"	✓
60079-13 Edition 1	Explosive atmospheres - Part 13: Equipment protection by pressurized room "p"	✓
60079-15 Edition 4	Electrical apparatus for explosive gas atmospheres - Part 15: Construction, test and marking of type of protection "n" electrical apparatus	✓
60079-18 Edition 3	Electrical apparatus for explosive gas atmospheres - Part 18: Construction, test and marking of type of protection encapsulation "m" electrical apparatus	✓
60079-25 Edition 2	Explosive atmospheres - Part 25: Intrinsically safe electrical systems	✓
60079-26 Edition 2	Explosive atmospheres - Part 26: Equipment with equipment protection level (EPL) Ga	Not requested
60079-27 Edition 2	Explosive atmospheres – Part 27: Fieldbus intrinsically safe concept (FISCO)	✓
60079-28 Edition 1	Explosive atmospheres - Part 28: Protection of equipment and transmission systems using optical radiation	Not requested
60079-29-1 Edition 1	Explosive atmospheres - Part 29-1: Gas detectors - Performance requirements of detectors for flammable gases	✓
60079-30-1 Edition 1	Explosive atmospheres – Part 30-1: Electrical resistance trace heating - General and testing requirements	✓
60079-31 Edition 1	Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure "t"	✓
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	Not requested



Number	Title	Scope
61241-0 Edition 1	Electrical apparatus for use in the presence of combustible dust - Part 0: General requirements	✓
61241-1 Edition 1	Electrical apparatus for use in the presence of combustible dust – Part 1: Protection by enclosures “tD”	✓
61241-1-1 Edition 2	Electrical apparatus for use in the presence of combustible dust- Part1-1: Apparatus for combustible dusts	✓
61241-4 Edition 1	Electrical apparatus for use in the presence of combustible dust – Part 4: Protection by pressurisation “pD”	✓
61241-11 Edition 1	Electrical apparatus for use in the presence of combustible dust – Part 11: Protection by intrinsic safety “pD”	✓
61241-18 Edition 1	Electrical apparatus for use in the presence of combustible dust – Part 18: Protection by encapsulation “mD”	✓
61779-1 Edition 1	Electrical apparatus for the detection and measurement of flammable gases - Part 1: General requirements and test methods	✓
61779-4 Edition 1	Part 4: Performance requirements for Group II apparatus indicating explosive limit	✓
61779-5 Edition 1	Part 5: Performance requirements for Group II apparatus indicating 100% gas	✓
62013-1 Edition 2	Caplights for use in mines susceptible to firedamp Part 1: General requirements - Construction and testing in relation to the risk of explosion	Not requested

1.7. **Accepted ExCB Persons Interviewed**

Name	Position
Dorin Stochitoiu	Technical Advisor and main IECEx contact
Benjamin Barker	Manager, Accreditations Service Quality
Andrew Seh	Quality Assurance Coordinator, Certification
Dan Livermore	Quality auditor

1.8. **Legal Entity of the Accepted ExCB**

Independent, not-for-profit organization, incorporated under Canadian Laws

1.9. **Associated Testing Laboratories**

One ExTL is located at CSA head office in Toronto and another in Edmonton. Only Edmonton lab conducts the explosion testing to IEC 60079-1 for Ex d protection. Only Toronto lab conducts gas detectors performance tests to IEC 60079-29-1



1.10. Associated Certification Functions

The commercial activities related to Ex activity are self financing through the fees required to its customers.

CSA Group carries out a wide range of certification activities. These include electrical, mechanical, plumbing, gas products, house-hold, sports etc. CSA is also a member of the IECEE Scheme. For the past couple of years, the majority of ATEX associated activity was done through SIRA, which is a CSA company.

1.11. National Marks and Certificates

The national mark is the CSA mark. There are also marks for ordinary locations and gas products.

1.12. Financial Support

The commercial activities related to Ex activity are self-financing through customer fees.

1.13. History

Canadian Standards Association (operating as CSA Group), of which CSA Group Certification and Testing is a division of, was established in 1919 and works in the area of standards development and the application of standards through product certification. CSA Group, Certification and Testing division operates laboratories to support the product certification program. CSA Group Certification and Testing division's programs of product certification and laboratory testing are accredited by the Standards Council of Canada (SCC). The first accreditation of CSA certification programs was done by SCC in June 1983

Company operating name was recently changed. The new operating name CSA Group replaces the previous operating name CSA International. During this audit, CSA requested that the new operating name CSA Group be further used in the IECEx scheme for ExCB activities.

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
George	Director of Service Quality	25 years at CSA



Name	Title	Experience
Tranquada	(overall – located in Toronto)	
Shawn Paulsen	Manager Conformity Assessment (overall – located in Toronto)	2 years at CSA
Rick Morrison	Technical Manager - Hazloc (overall – located in Toronto)	20 years at CSA, 0.5 in Ex
Dorin Stochitoiu	Technical Advisor – Hazloc (overall – located in Toronto)	12 years at CSA, 15 in Ex

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

Name	Title	Experience
John Kalinowski (overall – located in Toronto)	Senior Manager, Management Systems, Service Quality	28 years at CSA and 18 years in Quality
Andrew Seh	Quality Assurance Coordinator - Toronto	15 in CSA, 30 in QA field
Corinne Fletcher	Quality Assurance Coordinator - Edmonton	8 years with CSA Group, and 10 yrs in field of quality

2.3. Name and Title of Nominated Principal Contact

Name	Title	Comments
Dorin Stochitoiu	Technical Advisor – Hazloc (overall – located in Toronto)	Previously Dave Adams, then David Stubbings

2.4. Name and Title of Signatories for Certification

Name	Title	Comments
Dorin Stochitoiu	Technical Advisor – Hazloc (overall – located in Toronto)	Previously Dave Adams, then David Stubbings

2.5. Other Employees in ExCB activity

Name	Title	Responsibility and Experience in Ex
Vicki Madden	Confidential Secretary	35 years administrative, over 10 years in IECEx

2.6. Organizational Structure

Refer to CSA Group Organisational Chart in Annex 1

Even though there are two ExTL locations, Toronto and Edmonton, the ExCB and associated ExTL's operate in a single entity.



The ExCB operation comes under Service Quality with the main person involved being Dorin Stochituiu.

2.7. Administration (including Indemnity Insurance)

2.7.1. Administrative Structure
See above

2.7.2. Indemnity Insurance
Evidence was provided that Canadian Standards Association, operating as CSA Group has insurance cover for professional liability insurance.

3. RESOURCES

CSA Group appears to have an adequate number of staff for the current level of business.

Each laboratory and office are located in industrial units which provide an adequate environment for the work. The testing equipment at each location is suitable for the range of tests carried out in house.

4. COMMITTEES / Governing Board / Appeals / Advisory Board

There is a procedure for handling appeals, though none has been made during the past five years. IECEx related appeals are handled per procedure shown in CSA document DQD 312.01, which fulfills the requirements of IECEx 02 clause 10.4.

5. CERTIFICATION OPERATIONS

5.1. National Approval/Certification Methods

CSA Group operates in the two national Ex certification schemes. Canadian Standards Association (operating as CSA Group) is accredited by the Standards Council of Canada for which they can issue the CSA mark. This follows a similar procedure to that for IECEx scheme. There are unannounced factory inspections generally between two and four times a year which look at product, how it has been manufactured, and how it complies with the certification. It does not look at the whole quality system. Where CSA Group does work associated with the ATEX Directives it conducts in similar fashion to the IECEx Scheme.

5.2. Certification Policy

The Quality Manual contains a quality policy which does not make direct reference to product certification. However, the quality policy was seen to be in conformity with the requirements of ISO/IEC Guide 65 and IECEx 02.



5.3. Application for Certification

The applicant can ask for an application for certification by using the application forms which are available on CSA Group website. Once an application has been received, a quote or estimate and lead-time are provided to the applicant.

5.4. Certification Decision

IECEx Certification process is described DQD 312.01. The certification decision resides with the ExCB and is based on existence of valid QAR's for applicant and manufacturing locations and satisfactory review of applicable ExTR's. Where staff are used in the ExCB who also have an ExTL role, it is clearly specified that they must not have been involved in any project for which they are performing that ExCB role.

5.5. Suspension and Cancellation of Certificates

The suspension of certificates is defined in DQD 312.01 and there is specific reference of how this relates to the IECEx System.

6. STATISTICS

6.1. Certificates Issued

Number of certificates issued under the IECEx in the preceding four years for each type of protection:

(Amounts after "/" are reports with more than one protection technique)

Standards	Title	Number of issued test reports				
		2008	2009	2010	2011	2012 ¹
IEC 60079-1	Equipment protection by flameproof enclosures "d"	12/6	15/6	20/6	21/8	13/8
IEC 60079-7	Equipment protection by increased safety "e"				1/1	
IEC 60079-11	Equipment protection by intrinsic safety "i"	13/9	13/8	18/13	11/9	11/5
IEC 60079-15	Construction, test and marking of type of protection "n" electrical apparatus	7/7	8/6	15/10	19/10	11/6
IEC 60079-18	Equipment protection by encapsulation "m"					
IEC 60079-26	Equipment with equipment protection level (EPL) Ga					
IEC 60079-31	Protection by enclosures "ta" "tb" "tc"			2/2		1/1
IEC 61241-1	Protection by enclosures "tD"		1/1		1/1	
IEC 61241-1-1	Protection by enclosures DIP	1/1	2/2	3/3	2/2	2/2
IEC 61241-11	Protection by intrinsic safety 'iD'					

The above table does not include Unit Verifications ExTR's which were 2/2 in total for 2012

In addition, under Canadian Standards Association (operating as CSA Group) operation there are more than one thousand projects related to Ex (hazloc) equipment with different types of protection fulfilled each year.

¹ Up to 2012/08/27



7. DOCUMENTATION

7.1. *Quality Manual*

CSA Group has a comprehensive quality manual supported by other procedural documents, which refer to ISO/IEC 17025 standards and ISO/IEC Guide 65 and meets the requirements of IECEx

7.2 *Procedures*

CSA Group has a very comprehensive range of procedures covering all aspects of the Certification operations, including testing, and were audited as part of this assessment. Where applicable each procedure has with it an associated test sheet for completion by the staff.

7.3 *Work Instructions*

Work Instructions are incorporated with the CSA Group Procedures. See 7.2 above

7.4 *Records*

All records are maintained according to DQD 335 Management of Quality Records procedure and were found to meet IECEx requirements.

7.5 *Document Change Control*

The QM and DQD 332 address document control. All documentation is on the intranet site and also available to employees on the CSA web based portal. A monthly notification goes out to advise staff of changes. This also addresses documentation specific to the Scheme which is generally handled through Dorin Stochituiu. All DQDs are reviewed periodically. There is a regional operating committee (ROC) that reviews all non-conformances and this includes the DQDs, including the need for training. Staff is provided with access to standards through 'IHS' website. Once printed these contain a statement that they are a reference copy only. Distribution and control of other materials are the responsibility of the Technical Advisor for the Ex area

8 CONFIDENTIALITY

All new employees have on-line training and commitment to confidentiality which is recorded in a database. Previously this was done in hard copy but existing employees were also required to do the training in the new system. These records are maintained by HR and available on the intranet.

There is a system of security control at the main entrance gates and entrance to buildings is controlled by key (RFID badge). The DQD 050 Quality Manual indicated requirement for confidentiality and avoiding conflict of interest. This was found to comply with ISO/IEC Guide 65



9 PUBLICATIONS

CSA has a wide range of publications covering both technical and general/marketing information. Application form can also be found on their website.

10 NATIONAL ACCREDITATION

Canadian Standards Association (operating as CSA Group) is accredited by the Standards Council of Canada (SCC) and under the OSHA NRTL. Copies of the accreditation certificates are shown in the Annex 2. The SCC accredits against ISO/IEC 17025 and ISO/IEC Guide 65 and their website indicates the accreditations are active and in good standing. OSHA uses their own requirements when recognizing a body under their NRTL program. The OSHA website shows that the accreditation covers Toronto and Edmonton locations and indicates that the accreditation is currently active and in good standing.

11 RECOGNITION AND AGREEMENTS

Canadian Standards Association (operating as CSA Group) has a number of agreements with various certification bodies. In the recent years, SIRA became a CSA company.

12 INTERNAL AUDIT AND PERIODIC MANAGEMENT REVIEW

Internal audits are done once a year for each type of operation. The last internal audit for IECEx was reviewed. Internal Audit procedure is DQD 305 Management System Audit Program.

The Management review is defined in the Quality Manual, is also conducted annually.

There are also regular technical audits of completed projects.

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

There are requirements for subcontracting in the QM and associated procedures. However, at present, there are no tests that CSA Group had to subcontract for testing to IEC standards. There is a procedure covering witnessing testing at manufacturers' premises which was found to comply with OD 024.

14 TRAINING

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

There is a competency matrix for all Activity branches which include the ExCB and the ExTL tasks.



There is a procedure for training, DQD424. All training records are maintained and made available on the intranet through LMS (Learning Management System). There is a mechanism called Communities of Practice (COP), where a question is posted to an electronic notice board and when answered, generally by the TA is available for everyone to see.

15 ASSESSMENT OF MANUFACTURERS AND ISSUE OF QARS

The procedures for assessment of manufacturers are contained in DQD312.01, Guidelines for processing of application in the IECEx Scheme. Most auditing is done by Dan Livermore who has extensive experience in the Ex field in addition to auditing.

A number of CSA Group QAR files were reviewed and seen to be satisfactory.

16 COMPLAINTS AND APPEALS (Including appeals to IECEx)

They have a general process in CSA Group for external complaints defined in DQD 306 Handling Customer Complaints. The Certification Appeals Procedure is detailed in DQD 458. 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:

- Site Assessment report
- Checklist for ISO/IEC Guide 65

17.2 *Certificate Files Reviewed*

A review was made of files for the following certificates:

IECEX CSA 12.0001X (now IECEx CSA 12.0001U)

IECEX CSA 08.0004X issue No.:1

IECEX CSA 08.0005X issue No.:1

IECEX CSA 05.0014

IECEX CSA 11.0014

IECEX CSA 10.0015 issue 2

18 COMMENTS (Including issues found during assessment)

The assessment found that there were several certificates that had minor errors, mainly in the editions of the standards, linking of QARs and the use of OD24. These were corrected to the satisfaction of the team.



19 RECOMMENDATION

Based on the assessment performed between 28th to 30th August 2012, CSA Group 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.

Ron Webb
Lead Assessor

Thierry Houeix
Expert Assessor

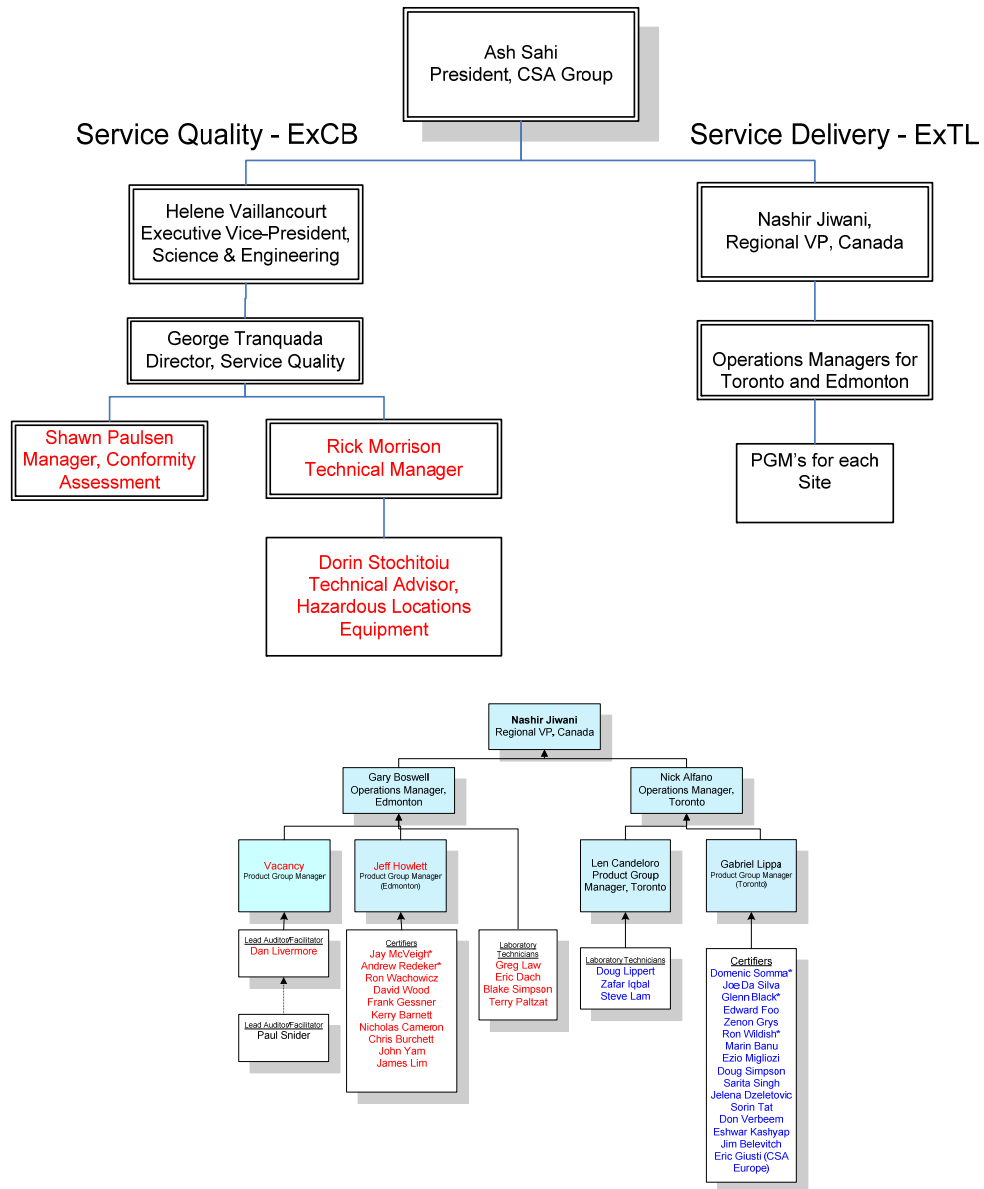
Date: 31 January 2013

List of Annexes:

1. Overall Organization Chart of CSA International
2. Accreditation Certificate for Product Certification



Annex 1 - Overall Organization Chart of CSA Group



* Certification Specialists
Certifiers include: Engineers, Technologists & Technicians
Lab Personnel include: Technologists & Assistants
Blue shaded boxes: Management Team
Red Text: Edmonton
Blue Text: Toronto

Rev. 2012-08-24 org chart is for reference only. The official org chart is on the Toronto Infonet



Annex 2 - Accreditation Certificate for Product Certification

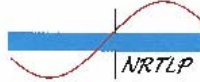
CERTIFICATE OF ACCREDITATION	 Standards Council of Canada Conseil canadien des normes	CERTIFICAT D'ACCREDITATION
Canadian Standards Association operating as CSA International 178 Rexdale Boulevard, Toronto, Ontario		
having been assessed under the authority of the Standards Council of Canada Act and found to comply with the criteria established by the Council, it is hereby recognized as an:		ayant été soumis à une évaluation selon la Loi sur le Conseil canadien des normes et ayant été trouvé conforme aux critères établis par le Conseil, est de fait reconnu comme étant un:
ACCREDITED CERTIFICATION BODY		ORGANISME DE CERTIFICATION ACCRÉDITÉ
in specific subject areas and for key locations as identified in the scope of accreditation issued under "Product Certification - Accredited Clients" on www.scc.gc.ca		dans les domaines d'activité et pour les établissements clés indiqués dans la portée d'accréditation figurant à l'adresse : www.scc.gc.ca sous la rubrique « Certificat on des produits - Clients accrédités ».
		
		Document no. number / numéro d'identification : 10026-1014
		Initial accreditation date / Date de la première accréditation : 1985-06-28
		Renewal date / Date de la réévaluation : 2011-01-04
		Expiry date / Date d'expiration : 2018-01
		This certificate is valid only insofar as it complies with the conditions set forth in the S.C.C. Act. The person certifying this document is subject to the provisions of the S.C.C. Act and is responsible for its use.
 Chairman (SCC) / Président (CCN)		
Accreditation performed according to the General Requirements for Bodies Operating Product Certification Systems (ISO/IEC 17065) and the Specific Requirements for Bodies Operating Product Certification Systems (ISO/IEC 17065-2) and other requirements. To verify the validity of the certificate, please see the listing of Accredited Clients on www.scc.gc.ca		
L'accréditation a été effectuée conformément aux Exigences générales relatives aux organismes producteurs de certificats de conformité (ISO/IEC 17065) et aux Exigences spécifiques relatives aux organismes producteurs de certificats de conformité (ISO/IEC 17065-2) et autres exigences. Pour vérifier la validité du certificat, veuillez consulter la liste des clients accrédités sur le site www.scc.gc.ca		

This is a valid certificate of accreditation issued by the Standards Council of Canada (SCC) in accordance with the Standards Council of Canada Act (SCC Act) and the Standards Council of Canada Regulations (SCC Regulations). The certificate is valid only insofar as it complies with the conditions set forth in the SCC Act and the SCC Regulations. The person certifying this document is subject to the provisions of the SCC Act and the SCC Regulations and is responsible for its use.

Canada



Occupational Safety and Health Administration
Nationally Recognized Testing Laboratory Program



Addendum to the Certificate of Recognition

Canadian Standards Association

178 Rexdale Boulevard (Toronto)
Etobicoke, Ontario M9W 1R3 Canada

is recognized by the Occupational Safety and Health Administration (OSHA) as meeting the requirements for a Nationally Recognized Testing Laboratory (NRTL) established under Section 1910.7 of Title 29, Code of Federal Regulations. This recognition is limited to testing and certification only within this NRTL's current scope of recognition, and is subject to all of the terms set forth in the letter of recognition and in applicable Federal Register notices.

This NRTL filed a timely request with OSHA for renewal of its recognition, and this addendum to the NRTL's current certificate of recognition confirms that this NRTL retains its NRTL recognition until the date indicated below or until OSHA makes a final determination regarding this NRTL's request for renewal, whichever occurs first. For current recognition information about this NRTL, including its scope of recognition, contact the OSHA NRTL Program or visit www.osha.gov.

December 31, 2012

Effective through

5

Certificate No.

