



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

**Circulated to: Ex Management Committee, ExMC**

**TITLE: IECEx Assessment Report for the acceptance of CSA Group,  
Cleveland, USA, as an IECEx Test Laboratory (ExTL)**

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**INTRODUCTION**

This document contains the IECEx Assessment Report for the acceptance of CSA Group, Cleveland, USA, as an IECEx Test Laboratory (ExTL) within the IECEx System.

It is proposed that this laboratory will operate in accordance with the IECEx Scheme Rules, with the associated accepted ExCB being CSA Group, 178 Rexdale Boulevard, Toronto, Ontario, Canada, M9W 1R3.

This report is hereby submitted for voting.

Please consider this assessment report and return the completed voting form (separate - in Word Format) to the Secretariat by **1<sup>st</sup> July 2013**. A speedy response to the voting process will be very much appreciated.

*Chris Agius*

IECEX Secretariat

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# IECEX ASSESSMENT REPORT FOR CSA GROUP IECEX TEST LABORATORY ExTL

Type of Assessment: (please mark)

Initial assessment for Candidate ExTL        X

Re-Assessment of ExTL

Scope Extension of ExTL

## 1. OBJECT AND FIELD OF APPLICATION

### 1.1. Country:

Ex TL, USA  
Associated CB, Canada

### 1.2. Name of Accepted TL

CSA Group, Cleveland

### 1.3. Members of the Assessment Team

IECEX Team Leader:    Ron Webb  
Expert Assessor:        Vijay Varma

### 1.4. Place and Date of Assessment

8501 E. Pleasant Valley Road, Cleveland, OH, USA  
29-30 January 2013

### 1.5. Assessment References

- i)        IECEx 02 IECEx Scheme rules of procedure
- ii)       IECEx Operational Document OD/003 IECEx Assessment procedures
- iii)      IECEx Operational Document OD/009 Issuing of CoCs, ExTRs and QARs
- iv)      ISO/IEC 17025:2005
- v)        IECEx Technical Guidance Documents (TGDs)
- vi)      ExTAG decision sheets (DSs)

### 1.6. Scope of Application

Number	Title	Scope
60079-0 Edition 6	Explosive atmospheres - Part 0: Equipment - General requirements	✓
60079-1 Edition 6	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"	✓
60079-2	Explosive atmospheres -	✓



Number	Title	Scope
Edition 5	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 included because it is not in the scope of ExCB
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	Not requested
60079-30-1 Edition 1	Explosive atmospheres – Part 30-1: Electrical resistance trace heating - General and testing requirements	Not requested
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
61241-0	Electrical apparatus for use in the presence of combustible dust -	✓



Number	Title	Scope
Edition 1	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	Electrical apparatus for use in the presence of combustible dust- Part1-1: Apparatus for combustible dusts	<b>Not included as old standard</b>
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 “iD”	✓
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	Not requested
61779-4 Edition 1	Part 4: Performance requirements for Group II apparatus indicating explosive limit	Not requested
61779-5 Edition 1	Part 5: Performance requirements for Group II apparatus indicating 100% gas	Not requested
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 TL Persons Interviewed

Name	Position
Dorin Stochitoiu	Technical Advisor and main IECEx contact
Steven Kazubski	Quality Assurance Coordinator
Peter Schimmoeller	Manager, Hazloc
Andrew Sargent	Certification Specialist
Tim Girard	Technician
Scott Wallace	Project Engineer
Rich Dibler	Project Engineer
Joe Frost	Technician
Richard Masek	Certification Specialist
Benjamin Barker	Manager, Accreditations Service Quality

### 1.8. Legal Entity of the accepted TL

Independent not-for-profit organization which is a registered legal entity in the US

### 1.9. Associated ExCB

#### Names of Laboratories

CSA Group

#### Address

178 Rexdale Boulevard,



Toronto, Ontario, Canada, M9W 1R3

The CSA Group ExTL Cleveland location operates as an integrated operation with the CSA ExCB

**1.10. Financial Support**

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

**1.11. 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

**2. ORGANISATION**

Tables below to be initially completed by applicant or body being re-assessed

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

Name	Title	Experience
John Gorman	Operations Manager -- Cleveland	30 years with CSA
Peter Schimmoeller	Product Group Manager, Hazardous Locations - Cleveland	23 years in Ex and 11 years with CSA
Dorin Stochitoiu (overall – Toronto)	Technical Advisor, Hazardous Locations	15 years in Ex and 12 years with CSA

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

Name	Title	Experience
John Kalinowski (overall – Toronto)	Senior Manager, Management Systems, Service Quality	28 years at CSA and 18 years in Quality
Steven Kazubski	Quality Assurance Coordinator - Cleveland	19 in CSA, 7 in QA field
Benjamin Barker (overall – Toronto)	Manager of Accreditations	2 in CSA, 8 in QA field

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

Name	Title	Comments
Dorin Stochitoiu	Technical Advisor,	Toronto office



	Hazardous Locations	
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## 2.4. Employees

There are 20 employees working for the CSA Group in Cleveland locations for Ex Certification, mainly including product managers, certifiers, laboratory technicians, and administration staff. Several employees have more than 10 years Ex experience. Detailed staff experience and qualifications stats were provided.

## 2.5. Organizational Structure

Refer to CSA International Organisational Chart in Annex 1

# 3. RESOURCES

CSA Group appears to have an adequate number of staff for the current level of business. There are experienced staff in hazardous area evaluation and testing. 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. DOCUMENTATION

## 4.1. Quality Manual

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

## 4.2. Procedures

CSA Group has a very comprehensive range of procedures covering all aspects of the testing operations that were audited as part of this assessment. Where applicable each procedure has with it an associated test sheet for completion by the staff. The procedures were found meet IECEx requirements.

## 4.3. Work Instructions

Work Instructions are incorporated with the CSA Group Procedures. See 4.2 above

## 4.4. Records

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

## 4.5. Document Change Control

Document change control is affected by having the master document as the digital document on the intranet in accordance with Document Control procedure.



The QM and DQD 332 address document control. All documentation is on the intranet site and is 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. Staffs are provided with access to standards through the '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.

#### **4.6. Test Records**

All test records are retained in hard copy form, although most are records in electronic form. Record retention is shown in the procedures to be 10 years from cancellation of certification.

### **5. TEST REPORTS**

#### **5.1. Test Reports Issued**

Number of test reports issued under Ex schemes in the preceding two years for each type of protection:

Total Ex d – XP: 315  
Total Ex p – Purge: 27  
Total Ex i – IS: 245  
Total Ex n – Div 2: 362  
Total Ex t – Div Dust: 127

### **6. CALIBRATION**

Within CSA Group, the metrology laboratory operates as a comprehensive calibration laboratory accredited by SCC and NVLAP for internally providing calibration related services of CSA internal test equipment and instruments, including working standards. The corresponding procedures were well documented and all equipment checked was in calibration. But it is also noted that some of the facilities, for example vibration machine and reference standards are outsourced to be calibrated.

### **7. CONFIDENTIALITY**

All employees sign confidentiality agreements. Examples of these were sighted by the team and found to meet IECEX requirements.

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 gate and entrance to buildings is controlled by key. The DQD 050 Quality Manual indicated requirement for confidentiality and conflict of interest. This was found to comply with ISO/IEC 17025.



## **8. NATIONAL ACCREDITATION**

Canadian Standards Association (operating as CSA Group), Cleveland location, is accredited by IAS. Copies of the accreditation certificates are shown in the Annex 2. IAS accredits against ISO/IEC 17025 and their website indicates the accreditations are active and in good standing.

## **9. RECOGNITION AND AGREEMENTS**

CSA Group has a number of agreements. In the recent years SIRA became a CSA company.

## **10. INTERNAL AUDIT AND PERIODIC REVIEW**

Internal audits are done once a year according to Internal Audit procedure - DQD 305 Management System Audit Program for each type of operation. The last internal audit for IECEx was reviewed and found to meet IECEx requirements.

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

## **11. COMPLAINTS AND APPEALS (Including appeals to IECEx)**

They have a general process in the 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

## **12. SPECIAL FACTS TO BE NOTED**

### **12.1. *Supporting Documentation***

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

- Site Assessment Report containing details of site assessment
- Checklist for ISO/IEC 17025

## **13. COMMENTS (Including issues found during assessment)**

Initially there were a few problems associated with commissioning of new equipment but these were resolved, to the satisfaction of the assessment team, during the assessment.

## **14. RECOMMENDATION**

Based on the re-assessment performed on 29-30 January 2013, CSA Group, Cleveland is recommended for acceptance in the IECEx scheme as an Accepted IECEx Testing Laboratory (ExTL) according to the scope of the standards listed in this document.





Ron Webb  
Lead Assessor

Vijay Varma  
Expert Assessor

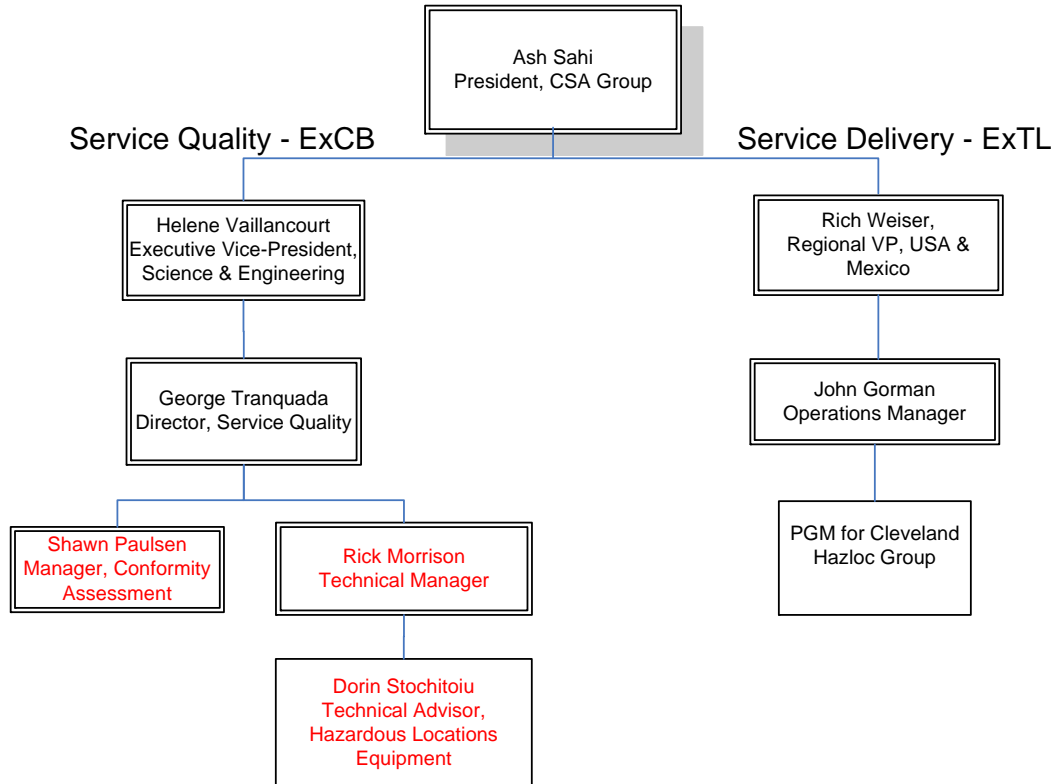
Date: 2 April 2013

**List of Annexes:**

1. Overall Organization Chart of CSA Group
2. Accreditation Certificate for ISO/IEC 17025

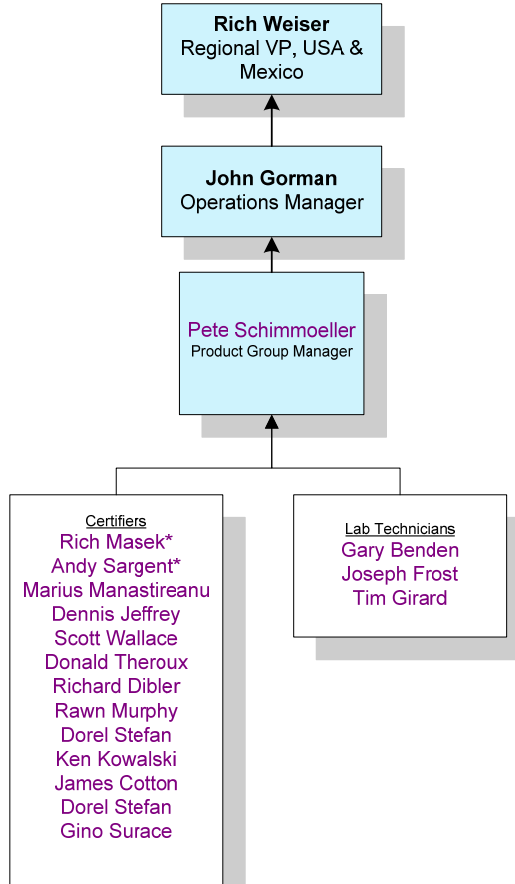


### Annex 1 - Overall Organization Chart of CSA Group, Cleveland





### Organization Chart of Service Delivery Staff involved in the IECEX Scheme within Cleveland





## Annex 2 - Accreditation Certificate for Product Certification

### Accreditation Certificate from SCC to ISO/IEC 17025

#### Summary of Scope of Accreditation



11-04877



International Accreditation Service  
**SCOPE OF ACCREDITATION**

CSA International TL-266  
(Revised February 12, 2013)

FIELDS OF TESTING	ACCREDITED TEST METHODS
Hazardous Locations	IEC 60079-0; 60079-1; 60079-2; 60079-5; 60079-6; 60079-7; 60079-11; 60079-15; 60079-18; 60079-25; 60079-26; 60079-31; 60529; 61241-0, 61241-1, 61241-4, 61241-11, 61241-18 CAN/CSA C22.2 No. 60079-0; C22.2 No. 60079-1; C22.2 No. 60079-2; C22.2 No. 60079-5; C22.2 No. 60079-6; C22.2 No. 60079-7; C22.2 No. 60079-11; C22.2 No. 60079-15; C22.2 No. 60079-18; C22.2 No. 60079-31; C22.2 No. 60529; C22.2 no 61241-4 CSA C22.2 No. 25; C22.2 No. 30; C22.2 No. 130; C22.2 No. 137; C22.2 No. 157; C22.2 No. 159; C22.2 No. 213; C22.2 No. 145; C22.2 No. 174; ANSI/UL 60079-0; 60079-1; 60079-5; 60079-6; 60079-7; 60079-11; 60079-15; 60079-18; 674; 823; 844; 913; 1203; ANSI/IEC 60529; ANSI/ISA 12.12.01; 12.27.01; 60079-0 (12.00.01); ANSI/ISA-60079-1 (12.22.01); 60079-2 (12.04.01); 60079-5 (12.00.04); 60079-6 (12.00.05); 60079-7 (12.16.01); 60079-11 (12.02.01); 60079-15 (12.12.02); 60079-18 (12.23.01); 60079-25 (12.02.05); 60079-26 (12.00.03); 60079-27 (12.02.04); 60079-31 (12.10.03); 61241-0 (12.10.02); 61241-1 (12.10.03); 61241-2 (12.10.06); 61241-11 (12.10.04); 61241-18 (12.10.07); NFPA 496; FMRC 3600; 3610; 3611; 3615; 3616; 3620

July 13, 2011  
Commencement Date



*C. P. Ramani*  
C. P. Ramani, P.E.  
President

Print Date: 03/19/2013

This accreditation certificate supersedes any IAS accreditation certificate bearing an earlier date. The certificate becomes invalid upon suspension, cancellation or revocation of accreditation.  
See the IAS Accreditation Listings on the web at [www.iasonline.org](http://www.iasonline.org) for current accreditation information, or contact IAS directly at (562) 364-8201.

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