ExMC/1134/DV
June 2016

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

Title: Scope Extension Assessment Report for UL LLC, US, an Accepted ExCB and ExTL within the IECEx System, Equipment Scheme 02

To: Members of the IECEx Management Committee, ExMC

Introduction

Following an application for a scope extension from UL, LLC, US, a special site assessment visit was arranged and conducted for the inclusion of the following Standards within their scope -

ISO 80079-36 Explosive atmospheres - Part 36: Non-electrical equipment for explosive atmospheres - Basic method and requirements

ISO 80079-37 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"

This report details the assessment findings of this scope extension with the IECEx Assessment Team recommending the acceptance of the above scope extension. It is now hereby submitted for voting by ExMC.

Please consider the report and return the completed voting form, separate Word document, to **the Secretariat** by **2016 07 29**

Your speedy response to the voting process will be very much appreciated.

Chris Agius
IECEx Secretary

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

IECEx Assessment Report Form

IECEx Assessment Report Form for use by IECEx Assessment Teams to report Assessments conducted according to the IECEx Assessment Procedures of

a) Operational Document IECEx OD 003-2 for the Certified Equipment Scheme
b) Operational Document IECEx OD 016 for the Certified Service Facility Scheme
c) Operational Document IECEx OD 022 for the IECEx Conformity Mark Licensing System

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IECEx ExCB/ExTL assessment report for UL LLC

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

CONTENTS

1 Assessment information

1.1 Type of Body covered by this assessment: <retain appropriate marks>

ExCB for IECEx Certified Equipment Scheme	✓
ExTL for IECEx Certified Equipment Scheme	✓
ExCB for IECEx Certified Service Facilities Scheme	
ExCB for IECEx Conformity Mark Licensing System	

NOTE 1 ExCB - IECEx Certification Body

NOTE 2 ExTL - IECEx Testing Laboratory

1.2 Type of assessment: <retain appropriate marks>

Pre-assessment for candidate body	
Initial assessment for candidate body	
Surveillance	
Re-assessment	
Scope extension	✓

This site assessment is part of the processing of a scope extension request from UL LLC for inclusion of the ISO 80079-36 and -37 non-electrical Standards which were in their final Draft form, in accordance with the decisions of the 2015 ExMC Christchurch meeting, where it was agreed that assessments of ExTLs and ExCBs could commence once the final Drafts were released.

Note: The standards were published at the end of February 2016

It should also be known that the Lead Assessor, Mr Ron Webb has been intimately involved in the preparation of the new non electrical standards as well as a member ExMC WG15 (non-electrical expert Working Group).

1.3 Details of body

1.3.1 Country

US

1.3.2 Name of body

UL LLC

1.3.3 Name and title of nominated principal contact

Name	Title	E-mail address
Katy Holdredge	Senior Staff Engineer	katy.a.holdredge@ul.com

1.4 Assessment information

1.4.1 Members of the assessment team

Name	Role (modify as necessary)
Ron Webb	Lead Assessor

1.4.2 Place(s) of assessment

333 Pfingsten Road, Northbrook, IL 60062-2096, USA

1.4.3 Assessment date

16 May 2016

1.5 Scopes

1.5.1 Additional Standards for ExCB scope for equipment certification scheme

Number	Title
ISO 80079-36 Edition 1 (2016)	Explosive atmospheres - Part 36: Non-electrical equipment for explosive atmospheres - Basic method and requirements
ISO 80079-37 Edition 1 (2016)	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"

1.5.2 Additional Standards for ExTL scope for equipment certification scheme

Number	Title
ISO 80079-36 Edition 1 (2016)	Explosive atmospheres - Part 36: Non-electrical equipment for explosive atmospheres - Basic method and requirements
ISO 80079-37 Edition 1 (2016)	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"

2 Common information

2.1 Legal entity of body

Not relevant as this is a scope extension assessment. This was covered in the reassessment ExMC/844/R.

2.2 Financial support

Not relevant as this is a scope extension assessment. This was covered in the reassessment ExMC/844/R.

2.3 History

Not relevant as this is a scope extension assessment. This was covered in the reassessment ExMC/844/R.

2.4 Documentation

2.4.1 Quality manual

Not relevant as this is a scope extension assessment. This was covered in the reassessment ExMC/844/R.

2.4.2 Procedures

While covered in the assessment reported in ExMC/844/R, it was confirmed that the procedures also cover the new Standards listed under the scope extension request.

2.4.3 Work instructions

While covered in the assessment reported in ExMC/844/R, it was confirmed that the procedures also cover the new Standards listed under the scope extension request.

2.4.4 Records (including test records where relevant)

Not relevant as this is a scope extension assessment. This was covered in the reassessment ExMC/844/R.

2.4.5 Document change control

Not relevant as this is a scope extension assessment. This was covered in the reassessment ExMC/844/R.

2.5 Confidentiality

Not relevant as this is a scope extension assessment. This was covered in the reassessment ExMC/844/R.

2.6 Publications (Hard cover and Electronic)

Not relevant as this is a scope extension assessment. This was covered in the reassessment ExMC/844/R.

2.7 Recognition and agreements

Not relevant as this is a scope extension assessment. This was covered in the reassessment ExMC/844/R.

2.8 Internal audit and periodic management review

While covered in the assessment reported in ExMC/844/R, it was confirmed that the procedures also cover the new Standards listed under the scope extension request.

2.9 Contracting, subcontracting, use of other labs and use of other locations

UL LLC does not have the Annex D equipment for ISO 80079-36 but will, if necessary, have this test carried out by PTB. A copy of the agreement between UL and PTB is held by the Secretariat

2.10 Training and competence

There is a competency matrix for the IECEx Scheme. Interviews were undertaken with staff to ensure that they had the required level of understanding. These are included in a TCD document which is held by the Secretariat. Training records for each staff member are held on an Intranet system and are very comprehensive.

2.11 Complaints and appeals (including appeals to IECEx)

Not relevant as this is a scope extension assessment. This was covered in the reassessment ExMC/844/R.

2.12 Special facts to be noted

2.12.1 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 and include:

- Completed technical capability document (TCD)

2.13 Recommendations

Based on the assessment performed on 16 May 2016, UL LLC is recommended for scope extension to include the Standards listed in 1.5 in the IECEx scheme as:

- An ExCB in the IECEx Certified Equipment Scheme
- An ExTL in the IECEx Certified Equipment Scheme

Ron Webb
Lead Assessor

Date: 16 May 2016

3 ExCB for IECEx Certified Equipment Scheme

3.1 Assessment references

a) IECEx Certified Equipment Scheme covering equipment for use in explosive atmospheres – Rules of Procedure

b) OD003-2 Assessment, surveillance assessment and re-assessment of ExCBs and ExTLs operating in the IECEx 02, IECEx Certified Equipment Scheme

c) OD005-2 IECEx Quality System Requirements for Manufacturers – Part 2: Audit Checklist. (This is available in a Word format for use by ExCBs)

d) ISO/IEC 80079-34 Edition 1, Explosive atmospheres – Part 34: Application of quality systems for equipment manufacture

e) OD009 Issuing of CoCs, ExTRs and QARs

f) IECEx Document 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

g) OD0026 IECEx Certified Equipment Scheme – Guidelines for the qualification of Lead Auditor and Auditors, in accordance with the IECEx System

h) ISO/IEC 17065, General requirements for bodies operating product certification systems

i) IECEx Document OD17 Drawing and documentation guidance

j) IECEx Technical Capability Document (TCD)

k) ExTAG decision sheets (DSs)

l) ExMC/1031/CD

NOTE The latest editions of the above documents were applied

3.2 Candidate ExCB persons interviewed

Name	Position
Erin LaRocco	Senior Project Engineer
Katy Holdredge	Senior Staff Engineer

3.3 Associated ExTL(s)

The ExCB is integral with the ExTL

3.4 Associated certification functions

While covered in the assessment reported in ExMC/844/R, it was confirmed that the procedures also cover the new Standards listed under the scope extension request.

3.5 National marks and certificates

This was covered in the reassessment ExMC/844/R. Also see 3.14 below.

3.6 Standards accepted in scope extension

See clause 1.5 of this report

3.7 National differences to IEC standards

National differences to IEC Standards are contained in the current IECEx Bulletin.

3.8 Organisation

3.8.1 Names, titles and experience of the senior executives

Name	Title	Experience
Katy Holdredge	Senior Staff Engineer, Hazardous locations	since 2009

3.8.2 Name, title and experience of the quality management representative

Name	Title	Experience
Jim Oates	Quality Engineering Manager	24 years
Antonio Romanacce	Quality Engineer	18 years

3.8.3 Name and title of signatories for certification

Name	Title
Paul Kelly	Principal Engineer, Global Hazardous Locations
Katy Holdredge	Senior Staff Engineer, Hazardous locations
Erin LaRocco	Senior Project Engineer, Hazardous Locations
Susan Lee	Staff Engineer, Hazardous locations
Lucy Frieders	Staff Engineer, Hazardous locations

3.8.4 Other employees in ExCB activity

Name
Nina Khoshaba

3.9 Organizational structure

Included in the Site Assessment Report

3.10 Administration

3.10.1 Administrative structure

Included in the Site Assessment Report

3.10.2 Indemnity insurance

Not relevant as this is a scope extension assessment. This was covered in the reassessment ExMC/844/R.

3.11 Resources

Adequate staffing resources were available

3.12 Committees (such as governing or advisory boards)

Not relevant as this is a scope extension assessment. This was covered in the reassessment ExMC/844/R.

3.13 Certification operations

3.13.1 National approval/certification methods

This was covered in the reassessment ExMC/844/R. Also see 3.14 and 3.15 below.

3.13.2 Certification policy

Not relevant as this is a scope extension assessment. This was covered in the reassessment ExMC/844/R.

3.13.3 Application for certification

While covered in the assessment reported in ExMC/844/R, it was confirmed that the procedures also cover the new Standards listed under the scope extension request.

3.13.4 Certification decision

While covered in the assessment reported in ExMC/844/R, it was confirmed that the procedures also cover the new Standards listed under the scope extension request.

3.13.5 Suspension and cancellation of certificates

Not relevant as this is a scope extension assessment. This was covered in the reassessment ExMC/844/R.

3.14 Certificates issued

Number of certificates issued under for the preceding four years for each type of protection. For new applications these should be for national or regional schemes and for currently accepted bodies IECEx certificates should be shown (certificates for other schemes may also be shown):

UL LLC are able to demonstrate experience with non-electrical standards, noting the number of certificates and reports issued under the ATEX Directive via UL International Demko A/S as the Notified Body in the last 4 years:

Standard numbers	**Type of protection or other identifying information**	
		Total
EN 13463-xx	Non-electrical equipment	9
	(ATEX Certificates)	

In addition to UL LLC utilizing EN ISO 80079-36 and EN ISO 80079-37 requirements and the previous editions of these standards, EN 13463-1, -3, -5, -6 and -8, in support of ATEX Ex certification through UL International Demko A/S, these non-electrical requirements are also utilized in support of North American Ex certification directly when deemed applicable.

3.15 National Accreditation

UL LLC is accredited by SCC to ISO/IEC 17065 as a certification body

3.16 Assessment of manufacturers and issue of QARs

UL LLC already carries out QAN assessments to ATEX for non-electrical equipment for issue by UL International Demko A/S as the Notified Body. This will extend to cover QARs under the IECEx Scheme.

3.17 Comments (including issues found during assessment)

The staff interviewed had a good understanding of the non-electrical standards in the EN13463-xx series. These were used as a basis for development of ISO 80079-36 and ISO 80079-37.

A review of previous files relating to the EN 13463 series revealed that UL LLC staff are well versed and have a full understanding of the assessment approaches for non-electrical equipment for Ignition Hazard Assessments

4 ExTL for IECEx Certified Equipment Scheme

4.1 Assessment references

a) IECEx02 IECEx Certified Equipment Scheme covering equipment for use in explosive atmospheres – Rules of Procedure

a) IECEx OD003-2 Assessment, surveillance assessment and re-assessment of ExCBs and ExTLs operating in the IECEx 02, IECEx Certified Equipment Scheme

b) IECEx OD009 Issuing of CoCs, ExTRs and QARs

c) ISO/IEC 17025:2005 Edition 2, General requirements for the competence of testing and calibration laboratories

d) IECEx Document OD17 Drawing and documentation guidance

e) IECEx Technical Capability Document (TCD)

f) ExTAG decision sheets (DSs)

g) ExMC/1031/CD

NOTE The latest editions of the above documents were applied.

4.2 Candidate ExTL persons interviewed

Name	Position
Robert Deadman	Staff Engineer
Erin LaRocco	Senior Project Engineer
Katy Holdredge	Senior Staff Engineer
Tai Min Kim	Senior Project Engineer

4.3 Associated ExCB(s)

The ExCB is integral with the ExTL

4.4 Organisation

4.4.1 Names, titles and experience of the senior executives

Name	Title	Experience
Katy Holdredge	Senior Staff Engineer, Hazardous locations	Since 2009
Michael Slowinske	Engineering Manager / ExTL	20 years

4.4.2 Name, title and experience of the quality management representative

Name	Title	Experience
Jim Oates	Quality Engineering Manager	24 years
Antonio Romanacce	Quality Engineer	18 years

4.4.3 Other employees in ExTL activity

Name
Included in the TCD

4.5 Organizational structure

Included in the Site Assessment Report

4.6 Resources

Adequate staff resources are available

4.7 Test reports issued

Number of test reports (ExTRs) issued under for the preceding four years for each type of protection.

UL LLC is able to demonstrate experience with non-electrical standards, noting the number of reports issued under the ATEX Directive in the last 4 years:

Standard numbers	**Type of protection or other identifying information**	
		Total
EN 13463-xx	Non-electrical equipment	9
	(ATEX)	

In addition to UL LLC utilizing EN ISO 80079-36 and EN ISO 80079-37 requirements and the previous editions of these standards, EN 13463-1, -3, -5, -6 and -8, in support of ATEX Ex testing through UL International Demko A/S, these non-electrical requirements are also utilized in support of North American Ex testing directly when deemed applicable.

4.8 National accreditation

UL LLC is accredited to ISO/IEC 17025 by IAS for the non-electrical standards ISO 80079-36 and ISO 80079-37.

4.9 Calibration

While covered in the assessment reported in ExMC/845/R, it was confirmed that the procedures also cover the new Standards listed under the scope extension request.

4.10 Comments (including issues found during assessment)

The staff interviewed had a good understanding of the non-electrical standards in the EN13463-xx series. These were used as a basis for development of ISO 80079-36 and ISO 80079-37.

It is further acknowledged that UL LLC are an active ExTL with an extensive scope of acceptance, refer to IECEx OD 001, therefore are in possession of the necessary test equipment and resources to undertake tests according to ISO 80079-36 and 80079-37.

5 Annexes