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

**Title: IECEx Assessment Report of UL LLC of the United States for acceptance of a scope extension within the IECEx 05 Certificate of Personal Competencies Scheme (CoPC)**

**Introduction**

This document contains the IECEx Assessment Report for the acceptance of a scope extension for UL LLC of the United States to include the following Units

* Ex 003 - Install explosion-protected equipment and wiring systems
* Ex 007 - Perform visual & close inspection of electrical installations in or associated with explosive atmospheres
* Ex 008 - Perform detailed inspection of electrical installations in or associated with explosive atmospheres

A site assessment was arranged with Mr Thierry Houeix as the IECEx Assessor, whom has produced this report recommending acceptance of the above scope extension.

***This document is hereby submitted for ExMC approval via correspondence using the IECEx on-line voting system.  ExMC Members are requested to submit their vote via the IECEx On-line*** [***Ballot System***](https://www.iecex.com/ballot) ***by the closing date 2019 02 25***

***Please refer to OD 050 for guidance on the “IECEx On-line voting system.”***

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|  | **RE-ASSESSMENT REPORT** |
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| **BODY UNDER ASSESSMENT:** | **UL LLC****333 Pfingsten RoadNorthbrook IL 60062-2096****United States** |
| **SITE(S)****ASSESSED:** | **OCS Group 15330 Park Row BLvd Houston, TX 77084United States** |

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| **IECEx SITE ASSESSMENT TEAM:** | **Thierry Houeix – Lead Assessor (FR – INERIS)** |
| **REPRESENTATIVE/S OF BODY:** | **Erin LaRocco**  |
| **DATE(S) OF SITE ASSESSMENT:**  | **11/12 June 2018** |
| **SCOPE:** | **Units Ex000, Ex001, Ex003, Ex 007, and Ex008** |

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| **X** | Unit Ex 000 – Basic Knowledge |
| **X** | Unit Ex 001 – Apply basic principles of protection in explosive atmospheres |
|  | Unit Ex 002 – Perform classification of hazardous areas |
| **X** | Unit Ex 003 – Install explosion-protected equipment and wiring systems |
|  | Unit Ex 004 – Maintain equipment in explosive atmospheres |
|  | Unit Ex 005 – Overhaul and repair of explosion-protected equipment |
|  | Unit Ex 006 – Test electrical installations in or associated with explosive atmospheres |
| **X** | Unit Ex 007 – Perform visual and close inspection of electrical installations in or associated with explosive atmospheres |
| **X** | Unit Ex 008 – Perform detailed inspection of electrical installations in or associated with explosive atmospheres |
|  | Unit Ex 009 – Design electrical installations in or associated with explosive atmospheres |
|  | Unit Ex 010 – Perform audit inspection of electrical installations in or associated with explosive atmospheres |

**IECEx 05 Certificate of Personal Competency Scheme**

**ASSESSMENT REPORT of**

**NEW IECEx APPLICANT BODY EXISTING IECEx CERTIFICATION BODY**

**X**

**(ExCB)**

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| **ASSESSMENT TYPE:** | **ATTACHMENTS** | **No. of Pages** |
| Application:  | Application Form - UL LLC – UL is already accepted as ExCB for IECEx 05 scheme and Units Ex000 and Ex001.Extension for other units have requested but the scope has been reduced during the assessment to Units Ex000, Ex001, Ex003, Ex 007, and Ex008.The extension for Units Ex 004 and Ex006 is postponed |  |
| Surveillance:  | Scope extension |  |
| Re-Assessment:  |  |  |
| Other: |  |  |
| Assessment duration:  | 2 days on-site 11/12 June 2018 |  |
|  |  |  |
| **RECOMMENDATION BY IECEx ASSESSOR(S)**(Select one item only) | 🞎 That Acceptance be granted🞎 That Acceptance be withheld/suspended🞎 That Acceptance continues🗹 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 |

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# GENERAL INFORMATION

## NAME OF BODY:

UL LLC
333 Pfingsten Road
Northbrook IL 60062-2096United States

## CURRENT IECEx PARTICIPATION:

UL LLC is an existing ExCB and ExTL in IECEx System.

## DETAILS OF ASSESSMENT TEAM:

Thierry Houeix – Lead Assessor

## DATES OF ASSESSMENT:

The on-site assessment visit was conducted on 11/12 June 2018.

The site assessment covered both the requirements for surveillance and a scope extension application to add the following Units

* Ex 003 - Install explosion-protected equipment and wiring systems
* Ex 007 - Perform visual & close inspection of electrical installations in or associated with explosive atmospheres
* Ex 008 - Perform detailed inspection of electrical installations in or associated with explosive atmospheres

The opportunity was also taken to assess facilities and capabilities for Units Ex004 and Ex006. These will be subject to a future scope extension application and are not included in this report.

## LOCATION OF ASSESSMENT:

The assessment was held on the OCS Group facilities in Houston, Texas.

## 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 Units Ex000, Ex001, Ex003, Ex 007, and Ex008 . At the conclusion of the site assessment there were issues raised requiring attention by UL. These issues have been included in the confidential report submitted and reviewed by the Secretariat. Follow up actions by UL to address these issues was reviewed by the Assessor with the Assessor finding all actions satisfactory to enable all items raised to be closed and to recommend both on-going acceptance and acceptance of the scope extension..

# 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 | UL LLC cross refers to the Scope of IECEx05 and has embraced all competencies as given in OD504 associated with Units Ex000, Ex001, Ex003, Ex 007, and Ex008 |
| 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 | UL LLC has no accreditation regarding ISO/IEC 17024. Therefore surveillance assessments are conducted by IECEx. |
| Clause 9.1 | (a) in a participating country | COMPLIES | United States is a participating country in the IECEx System |
| (b) operate recognized certification scheme | COMPLIES | UL LLC is also a Certification Body in United States regarding Ex Equipment Certification  |
| (c) competence demonstrated by assessment | COMPLIES | IECEx Assessment included technical interviews and examination of UL LLC staff for competence to evaluate to OD 504 for Units Ex000, Ex001, Ex003, Ex 007, and Ex008. |
| (d) suitable and sufficient questions for each Unit of Competence | COMPLIES | UL LLC has enough questions for each Ex unit |
| Assessment facilities considered by Assessment team to be appropriate and adequate for assessment of Units, according to OD 504? | COMPLIES | UL LLC and OCS have assessments facilities and enough panel to perform assessment for the candidates they have and for the units requiring practical assessments |
| Confirmation of which location is the official ExCB location, where more than 1 location is identified?an official ExCB location is one where the following are conducted:* applications received,
* contract review (review of application)
* assignment of application to ExCB staff
* review of exam/assessments
* decision to issue Certificate

(Contact IECEx Secretary for any questions) | COMPLIES | UL LLC at 333 Pfingsten RoadNorthbrook IL 60062-2096, is confirmed as the official ExCB location.But the theoretical examination can be performed anywhere UL LLC evaluator can go.The practical examination can only be performed where UL LLC have their practical assessment panels. Today it is at: OCS, Houston, Texas |
| **ISO/IEC 17024 Assessment**–Satisfactorily Completed (for bodies without acceptable national Accreditation) | COMPLIES | UL LLC have no accreditation regarding ISO/IEC 17024. Therefore IECEx assessments include assessments to ISO/IEC 17024 |

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| **IECEx Operational Document****Requirements** | **OD 502** | COMPLIES |  |
| **OD 503** | COMPLIES |  |
| **OD 504**(Review of ExCB assessment criteria including question bank, mapped against Competency Units of OD 504)  | COMPLIES |  |

**Additional Remarks concerning requirements** (if any)

Refer to the body of this report.

## Conclusion of Site Assessment

The purpose of the site assessment was to verify compliance with the requirements of the IECEx Scheme for the initial 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:

1. OCS is a Training Center in the field of Explosive Atmosphere, mainly dealing with installation and inspection
2. OCS Staff who is working for UL are: Roy Davis, Mark Coleman, Wayne Web and David R. Morgan as Examiners and Sharice Estrada and Adebola Adebote as invigilator. Roy, Mark, Wayne and David are also trainers regarding Ex installation and inspection. They have mostly CompEx certificate as trainer and they pass the IECEx CoPC Unit 1 before to be qualified as Examiners for UL.
3. OCS Examiners and Invigilator signed commitment and confidentiality agreement in order to be able to work for UL.
4. During Candidate Application review it is requested to identify the trainer of each candidates in order to avoid him as examiners if the training was performed less than two years before. This minimum of two years is required by ISO/IEC 17024.
5. For the unit Ex008, the IS barriers which have to be placed inside the pressurised enclosure was not present. However, the barrier was shown and was installed just after the assessment. This was shown correctly.

The main observations are as follows:

1. The Assessment Panels are available for the Units Ex 003, Ex 007 and Ex 008. For the moment, there is no assessment tools for Ex004 and Ex006. It was decided to postpone the application for these units during the assessment. But discussions and interviews were performed regarding these two units and when UL will be ready no on-site assessment will be required. The Scope Extension Assessment could be performed by correspondence.
2. Some questions need to be reworded like 34 and 129. Especially the questions used for unit Ex001 because they are used as a common basis for the other units like Ex 003, Ex 007 and Ex008. These were updated and found to comply with IECEx requirements.
3. The pressurised system is only marked with division… It could be good to place also an IECEx label on the equipment and the relating certificate otherwise it will be simply rejected by the candidate inspector and he will not check the rest.
4. The score does not make separation with construct and selected response because it not stated in the actual OD that it is required. However, UL is aware about the new version where it is required. They will change the score calculation when it will be published.
5. For the moment, there is only one bay available, but it will be reproduced 12 times in order to perform an examination of twelve candidates as maximum.

In addition, a review of the certification file was also performed and only one observation was noted:

* For IECEx CP UL 17.0005, the applicant requests for limitation with Group I. The PCAR states this limitation. However, the on-line PCAR does not state this. It is recommended to update the on-line PCAR.

5 findings requiring actions were also issued during the assessment. They are all listed in the confidential copy of the site assessment report submitted to the Secretariat for review. Follow up action by UL has been reviewed by the Assessor and found that IECEx requirements are now met and all items raised have been closed. Items raised during the site assessment visit covered matters such as:

* Need to update the agreement between OCS and UL regarding confidentiality
* Updating of some questions for the theory assessment
* Updating of drawings used for the area classification assessment
* Updating of entity parameters regarding IS assessments
* Updating of marking labels used in the practical assessment bays.

## Target date for resolution of issues

All items raised have now been resolved and closed.

## Actions after visit

With all items raised now closed, No further visit is required

## Recommendation by IECEx Assessor(s) after all issues resolved

It is recommended for UL LLC to continue as ExCB regarding IECEx 05 and to add the extensions of 3 Ex units in order to have the Units Ex000, Ex001, Ex003, Ex 007, and Ex008 in their scope.

It is recommended also to allow future scope extension for Units Ex004 and Ex006 without on-site assessment based on the discussions and interviews already performed. The Scope Extension Assessment could be performed only by correspondence.

Thierry Houeix

IECEx Lead Assessor

January 2019