



**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 *UL International Demko A/S* 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 ***UL International Demko A/S*** as an Accepted Certification Body (ExCB)

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

Chris Agius
IECEx Secretariat

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IECEx ASSESSMENT REPORT FOR UL International Demko A/S IECEx Certification Body ExCB

Type of Assessment:

Initial Assessment for Candidate ExCB

Re-Assessment of ExCB

X and relocation

Scope Extension of ExCB

1. OBJECT AND FIELD OF APPLICATION

1.1. Country:

Denmark

1.2. Name of ExCB

UL International Demko A/S

1.3. Members of the Assessment Team

Heinz Berger – IECEx Officer - IECEx Lead Assessor
David Walker – IECEx Expert Assessor

1.4. Place and Date of Assessment

**UL International Demko A/S
Borupvang 5A
2750 Ballerup
Denmark**

March 13th – 15th, 2012

1.5. Assessment References

- i) IECEx 02 Equipment Scheme Rules (current version)
- ii) IECEx OD 003 Assessment Procedures (current version)
- iii) IECEx OD 005-1, -2 and -3; Manufacturer Assessment (current version)
- iv) IECEx OD 009 Equipment Scheme Procedures(current version)
- v) IECEx OD 007 Checklist Guide 65 (current version)
- vi) IECEx OD 17 Drawings and Documentation(current version)
- vii) IECEx OD 24 Witness Testing/manufacturers and users Facility
- viii) IECEx OD 025 Guidelines Manufacturer Assessments(current version)

- ix) IEC 80079-34 Explosive atmospheres - Part 34: Application of quality systems for equipment manufactures
- x) IECEx Document F-001 (QAR Form)
- xi) ISO/IEC Guide 65:1996

1.6. Scope of Application

Number	Title	Acceptance
60079-0 Editions 3.1, 4, 5 and 6	Explosive atmospheres - Part 0: Equipment - General requirements	YES
60079-1 Editions 3.2, 4, 5 and 6	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures 'd'	YES
60079-2 Editions 4 and 5	Explosive atmospheres - Part 2: Equipment protection by pressurized enclosures 'p'	YES
60079-5 Editions 2 and 3	Explosive atmospheres - Part 5: Equipment protection by powder filling 'q'	YES
60079-6 Edition(s) 2 and 3	Explosive atmospheres - Part 6: Equipment protection by oil immersion 'o'	YES
60079-7 Editions 3 and 4	Explosive atmospheres - Part 7: Equipment protection by increased safety 'e'	YES
60079-11 Editions 4, 5 and 6	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety 'i'	YES
60079-15 Editions 1, 2 and 3	Explosive atmospheres - Part 15: Equipment protection by type of protection 'n'	YES
60079-18 Editions 1 and 2	Electrical apparatus for explosive gas atmospheres - Part 18: Construction, test and marking of type of protection encapsulation 'm' electrical apparatus	YES
60079-25 Editions 1 and 2	Explosive atmospheres - Part 25: Intrinsically safe systems	YES
60079-26 Editions 1 and 2	Explosive atmospheres - Part 26: Equipment with equipment protection level (EPL) Ga	YES
60079-27 Edition 1	Explosive atmospheres - Part 27: Fieldbus intrinsically safe concept (FISCO)	YES
60079-31 Edition 1	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"	YES
61241-0	Electrical apparatus for use in the presence of combustible	YES

Number	Title	Acceptance
Edition 1	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'	YES
61241-1-1 Edition 2	Electrical apparatus protected by enclosures and surface temperature limitation - Specification for apparatus	YES
61241-11 Edition 1	Electrical apparatus for use in the presence of combustible dust - Part 11: Protection by intrinsic safety 'iD'	YES
61241-18 Edition 1	Electrical apparatus for use in the presence of combustible dust - Part 18: Protection by encapsulation 'mD'	YES

1.7. Candidate ExCB Persons Interviewed

Name	Position
Jan-Erik Storgaard	Certification Manager
Jasmin Omerovic	Certification Project Engineer
Marie Bruun de Neergaard	Quality Engineering Manager
Brian Schneider	EULA Hazloc Engineering Manager

1.8. Legal Entity of the Candidate ExCB

UL International Demko A/S (UL Demko) is a Danish limited company, fully owned by UL LLC in USA, which is a company operating in similar business fields to UL Demko. The legal entity document issued on August 12th, 2011 with registration # CVR-nr 19195597 was reviewed during the assessment and found to meet the requirements of the IECEx.

1.9. Associated Testing Laboratories

The ExTL is integral with the ExCB at the same site. Additionally UL LLC (USA) is an associated ExTL as declared on the IECEx Homepage under UL Demko.

1.10. Associated Certification Functions

UL Demko does certification in a wide range of activities, including electrical safety and Ex.

1.11. National Marks and Certificates

The areas that UL Demko issues marks or certificates include European Directives (ATEX and LVD), UL listing, Demko, UL GS (for Germany), UL EU, Nordic, IECEx CB Scheme and FCS, European Certification Schemes (CCA, ENEC), etcetera.

1.12. Financial Support



UL Demko is fully self-funded from certification, testing, inspection and quality assurance activities.

1.13. *History*

- DEMKO was established in 1928 by the lighting authority
- In 1964 DEMKO was taken over by the Danish government
- In 1987 the mandatory CE-marking took over in Europe
- In 1996 DEMKO was acquired by UL Inc from the Danish Government
- In 2000, it changed its name to UL International Demko A/S
- In 2011, it moved to its current facilities.

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 System IECEx 02 Scheme Bulletin.

2. ORGANISATION

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

Name	Title	Experience Ex/Overall
Mette Pedersen	Managing Director	15 years, none in Ex
Edvard Jensen	Manager Global CO Operations	15 years, none in Ex
Brian Schneider	EULA Hazloc Engineering Manager	17 years in Ex
Jan-Erik Storgaard	Certification Manager	20 years, none in Ex
Jakob Petersen	Certification Team Leader	13 years, none in Ex
Jasmin Omerovic	Certification Engineer	9 years in Ex

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

Name	Title	Experience
Marie Bruun de Neergaard	Quality Manager	15 in Quality
Horst Thelen	Deputy Quality Manager	5 in Quality

2.3. *Name and Title of Nominated Principal Contact*

Name	Title	Comments
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Jasmin Omerovic	Certification Project Engineer for Ex	jasmin.omerovic@ul.com
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2.4. Name and Title of Signatories for Certification

Name	Title	Comments
Jasmin Omerovic	Certification Project Engineer	9 years in Ex
Peter Alex-Petersen	Staff Engineer / Engineering Leader	28 years in Ex
Fred Lankamp	Lead Auditor / Senior Project Engineer	14 years in Ex

2.5. Other Employees in ExCB activity

Name	Title	Responsibility and Experience in Ex
Ulla Jakobsen	Administration	

2.6. Organizational Structure

The certification decision/issue process for IECEx is integrated in the overall certification concept of UL Demko.

Details on the organization structure are shown in Annexes 1 (overall UL Demko) and 2 (ExCB specific).

2.7. Administration (including Indemnity Insurance)

2.7.1. Administrative Structure

Work comes in through Internal Sales then through Conformity Assessment Services (CAS) under the responsibility of the ExCB. If a QAR-audit is required a separate process is activated. As soon as all certification documents are available, the normal certification process starts.

2.7.2. Indemnity Insurance

UL International Demko A/S is integrated in the Underwriters Laboratories Inc. indemnity insurance for 'General and Product Liability – Professional Indemnity' covering its operations by Great Northern Insurance Company and St. Paul's Fire and Marine Insurance Company. The certificate number is 16035477. The last certificate was issued on June 1st, 2011 and is valid until June 1st, 2012. It is automatically renewed every year.

3. RESOURCES

The operation in Denmark has app. 100 employees covering a range of activities. It is an integrated part of UL's European network of app. 600 employees in 10+ countries and has direct access to UL's global network of more than 8000 employees. For the Ex field the major connection is with the UL ExCB and ExTL located in Northbrook, USA.



There are more than 15 people operating in UL Demko on Ex activities with others in management roles.

4. COMMITTEES / Governing Board / Appeals / Advisory Board

There is a Certification Committee established to support UL Demko's Certification Agreements and certification functions, covered by procedure 20-IC-S0038. The Certification Committee has an advisory function. However, if UL Demko does not follow a recommendation the committee has the right to go to the accreditation body. This committee does not handle appeals but will be informed in case appeals are coming up.

The committee is chaired by the Certification Manager and others from UL Demko may be present to provide information but are not members of the committee. There are external members including representatives from the Association of manufacturers and importers of electric appliances, a manufacturer of appliances, the Danish Electric Council and the National Consumer Agency.

5. CERTIFICATION OPERATIONS

5.1. National Approval/Certification Methods

The main areas are ATEX certification and UL listing.

5.2. Certification Policy

The certification policy requirements are described in the quality manual in procedure 20-IC-S0039. The procedure was checked during the assessment and found to meet the requirements of the IECEx.

5.3. Application for Certification

The application process is described in procedure 89-OP-G0027, supported by the requirements according to the Global service Agreement (GSA), service terms and the IECEx System Service Terms.

The application process for IECEx certification and associated documentation is covered in procedure 00-CS-S0033.

When new information is received from the Scheme, including new documents, the information is distributed according to the document control procedures to relevant personnel within the organization.

5.4. Certification Decision

The final decision process for certification is covered in procedure 20-IC-S0039. The decision for issuing the IECEx certificate is delegated by the overall Certification Manager of UL Demko, to the defined signatories for certification in the IECEx System.

5.5. Suspension and Cancellation of Certificates

The procedure for suspending and cancelling certificates is covered in procedure 20-IC-S0035. This includes reference to the IECEx System. The procedure was reviewed during the assessment and found to meet the requirements of the IECEx.

6. STATISTICS

6.1. Certificates Issued

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

Standards	Title	Number of issued certificates				Total
		2008	2009	2010	2011 /12	
60079-0	Explosive atmospheres - Part 0: Equipment - General requirements					Part 0 included in numbers below
60079-1	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures 'd'	3	2	17	12	34
60079-2	Explosive atmospheres - Part 2: Equipment protection by pressurized enclosures 'p'	1	---	---	---	1
60079-5	Explosive atmospheres - Part 5: Equipment protection by powder filling 'q'	---	---	---	---	0
60079-6	Explosive atmospheres - Part 6: Equipment protection by oil immersion 'o'	---	---	---	---	0
60079-7	Explosive atmospheres - Part 7: Equipment protection by increased safety 'e'	1	1	7	2	11
60079-11	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety 'i'	7	7	10	14	38
60079-15	Explosive atmospheres - Part 15: Equipment protection by type of protection 'n'	---	---	2	2	4
60079-18	Electrical apparatus for explosive gas atmospheres - Part 18: Construction, test and marking of type of protection encapsulation 'm' electrical apparatus	---	---	2	5	7
60079-25	Explosive atmospheres - Part 25: Intrinsically safe systems	2	2	4	4	12
60079-26	Explosive atmospheres - Part 26: Equipment with equipment protection level (EPL) Ga	5	2	5	6	18

Standards	Title	Number of issued certificates				Total
		2008	2009	2010	2011 /12	
60079-27	Explosive atmospheres - Part 27: Fieldbus intrinsically safe concept (FISCO)	---	---	---	---	0
60079-31	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"	---	---	---	---	0
61241-0	Electrical apparatus for use in the presence of combustible dust - Part 0: General requirements					Part 0 included in numbers below
61241-1	Electrical apparatus for use in the presence of combustible dust - Part 1: Protection by enclosures 'tD'	---	---	---	---	0
61241-11	Electrical apparatus for use in the presence of combustible dust - Part 11: Protection by intrinsic safety 'iD'	---	---	---	---	0
61241-18	Electrical apparatus for use in the presence of combustible dust - Part 18: Protection by encapsulation 'mD'	---	---	---	---	0

7. DOCUMENTATION

7.1. Quality Manual

UL Demko has a comprehensive range of quality documentation which consists of a major top level document, the Quality Handbook. The Quality Handbook contains a number of quality procedures and a number of instructions. This is available for all UL (Demko) employees via UL's intranet.

7.2. Procedures

Procedures are described in documents 00-IC-P0035 (international Certification Program Policy) and 00-IC-P0413 (IECEx Program Policy). The documents were reviewed during the assessment and found to meet the requirements of the IECEx.

7.3. Work Instructions

Refer to 7.2.

7.4. Records



Procedures 00-IC-S0052 (clause 9, product certification) and 00-IC-S0053 (clause 8, QARs) describe the archiving of project documentation as follows:

Documentation, communication and reports for customer projects are archived in different places. The communication is archived in the Lotus Notes database; eCommunications. The documentation for IECEx work is stored in the Lotus Notes database eProduction during the project work period, and hereafter detached and archived in the International Certification Library (ICL)

Hence all projects undertaken since 2006 are fully electronic and no hard copy records are retained. Older projects are still stored in hard copy.

The documents (clause 9, clause 8) were reviewed during the assessment and found to meet the requirements of the IECEx.

7.5. Document Change Control

Procedure 00-QA-S0003 describes the document control process. All UL Demko quality documents are controlled and they are released electronically. The version on the intranet is the up-to-date document. Hard copies are regarded as uncontrolled.

8. CONFIDENTIALITY

The Quality Handbook, clauses 7.4 and 8.6, define the requirements for ensuring confidentiality of customer information. All employees are required to sign a confidentiality declaration as part of their employment contract when they are employed. Several documents were reviewed during the assessment and found to meet the requirements of the IECEx.

9. PUBLICATIONS

Most information appears on the internet which is common for UL on Ex equipment. Some of the leaflets are available in hard copy.

10. NATIONAL ACCREDITATION

UL Demko is accredited by the Danish accreditation body, DANAK. The certificate number is 7011. It was issued on 2000.12.01 and is valid to 2014.12.01.

11. RECOGNITION AND AGREEMENTS

UL Demko have additional accreditations and agreements with a number of other bodies, including OSHA recognition certificate from the USA, notified body under ATEX (NB No. 0539), a member of the CB scheme, and acceptance from the US Coast Guard.

12. INTERNAL AUDIT AND PERIODIC MANAGEMENT REVIEW

Internal audits are done according to 00-QA-S0004 by global UL internal quality auditors. Numerous other audits and assessments (e.g. by OSHA) occur every year. Internal audits

are controlled by means of a corporate internal data base. The whole process could be presented on the Intranet and was found to meet the IECEx requirements.

Management Reviews occurs annually and are addressed in procedure 20-QA-S0026. The last meeting was held on March 1st, 2012, covering 2011. The report is under preparation. The management review report presently available covers 2010 and was reviewed during the assessment and found to meet the requirements of the IECEx.

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

UL Demko is using subcontracting for clearly defined clauses in standards 60079-0, 60079-7 and 60079-15. The only subcontractor is UL US. The accreditation certificate of UL US was checked (IAS TL-157) and found to meet the requirements of the IECEx. Furthermore, UL US is an active member in the IECEx System.

14. TRAINING

For certification staff applies 20-IC-S0041. Additionally there is a general procedure 20-HR-S0025.

15. ASSESSMENT OF MANUFACTURERS AND ISSUE OF QARS

The following IECEx QARs were reviewed during the assessment:

- DK/ULD/QAR06.0011/01; manufacturer in Denmark, protection types "i" and "d"
- DK/ULD/QAR11.0001/00; 2 manufacturers in Denmark, 1 in the P.R. of China; protection types "i" and "d"

The QARs were reviewed with the help of Mr. Fred Lankamp, one of the three QAR auditors of UL Demko.

The QARs with their relevant documents are fully stored electronically. During the assessment it was found, that the handling of QARs including all processes are well understood. Hence, the requirements of the IECEx Scheme are fulfilled.

16. COMPLAINTS AND APPEALS (Including appeals to IECEx)

There are presently no complaints or appeals reported. Procedure 00-CS-S0012 covers customer complaints as a global approach for UL. There is an Oracle CRM data base to store the complaints. There is also a local procedure for international certification appeals process (20-IC-S0025).

Customers are informed about the possibility to appeal to IECEx through our Service Terms

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
- Competence Matrix
- List of Contractors and Subcontractors
- Checklist for ISO/IEC Guide 65

18. COMMENTS (Including issues found during assessment)

During the assessment, issues concerning the relocation of UL Demko from Herlev to Ballerup (both in Denmark near Copenhagen) were checked (e.g. entrance control, electronic archiving of ExCB documents, power distribution and environmental control) and found to meet the requirements of the IECEx.

During the assessment, issues were found in the areas of accreditation and appeal board.

19. RECOMMENDATION

Based on the re- and relocation assessment performed from March 13th to 15th, 2012, the ExCB of UL International DEMKO A/S is recommended for continued acceptance in the IECEx Scheme as an IECEx Certification Body (ExCB) according to the scope of the standards listed in this document.

Lead Assessor
Heinz Berger

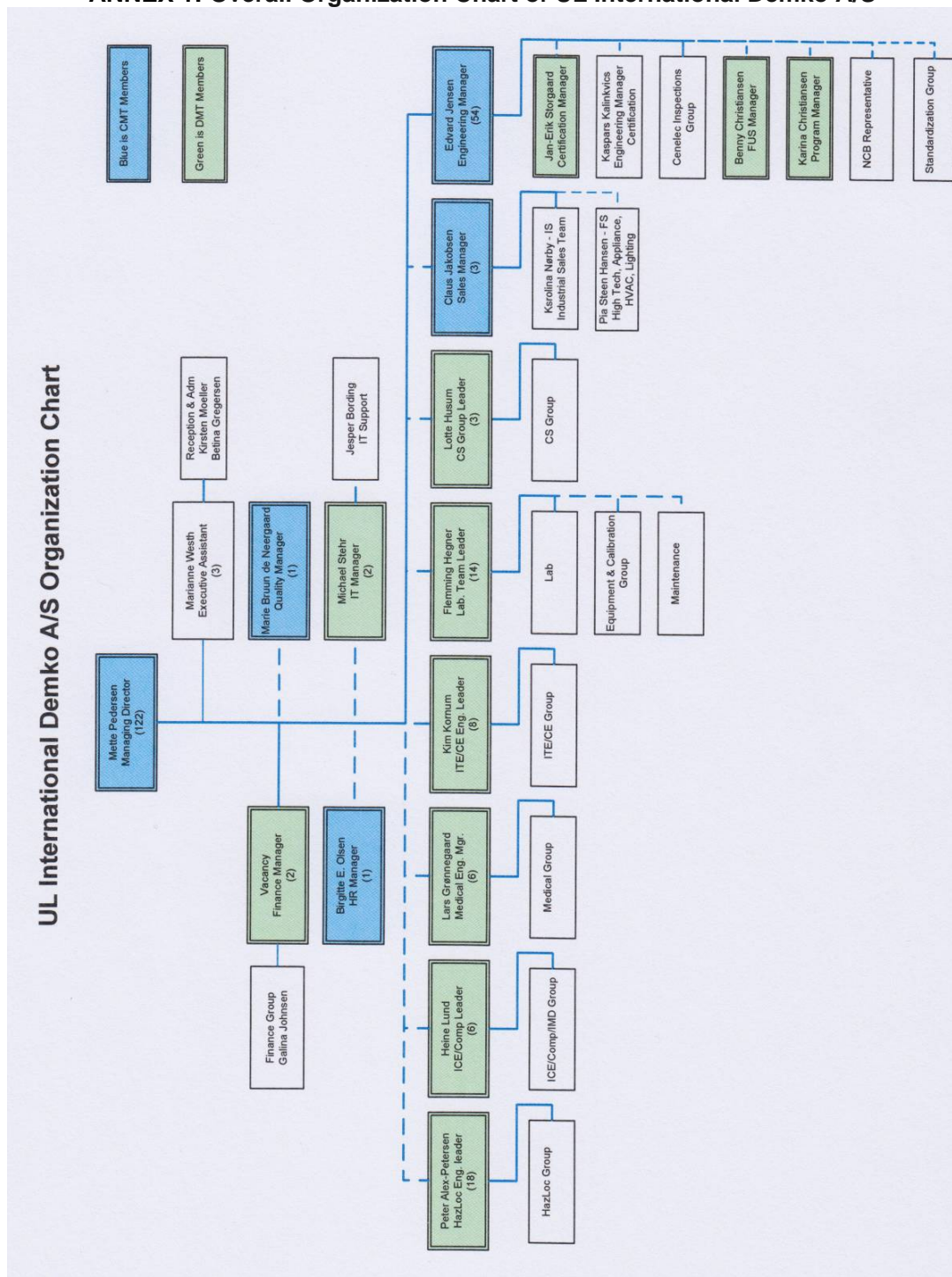
Expert Assessor
David Walker

Date: March 15th, 2012

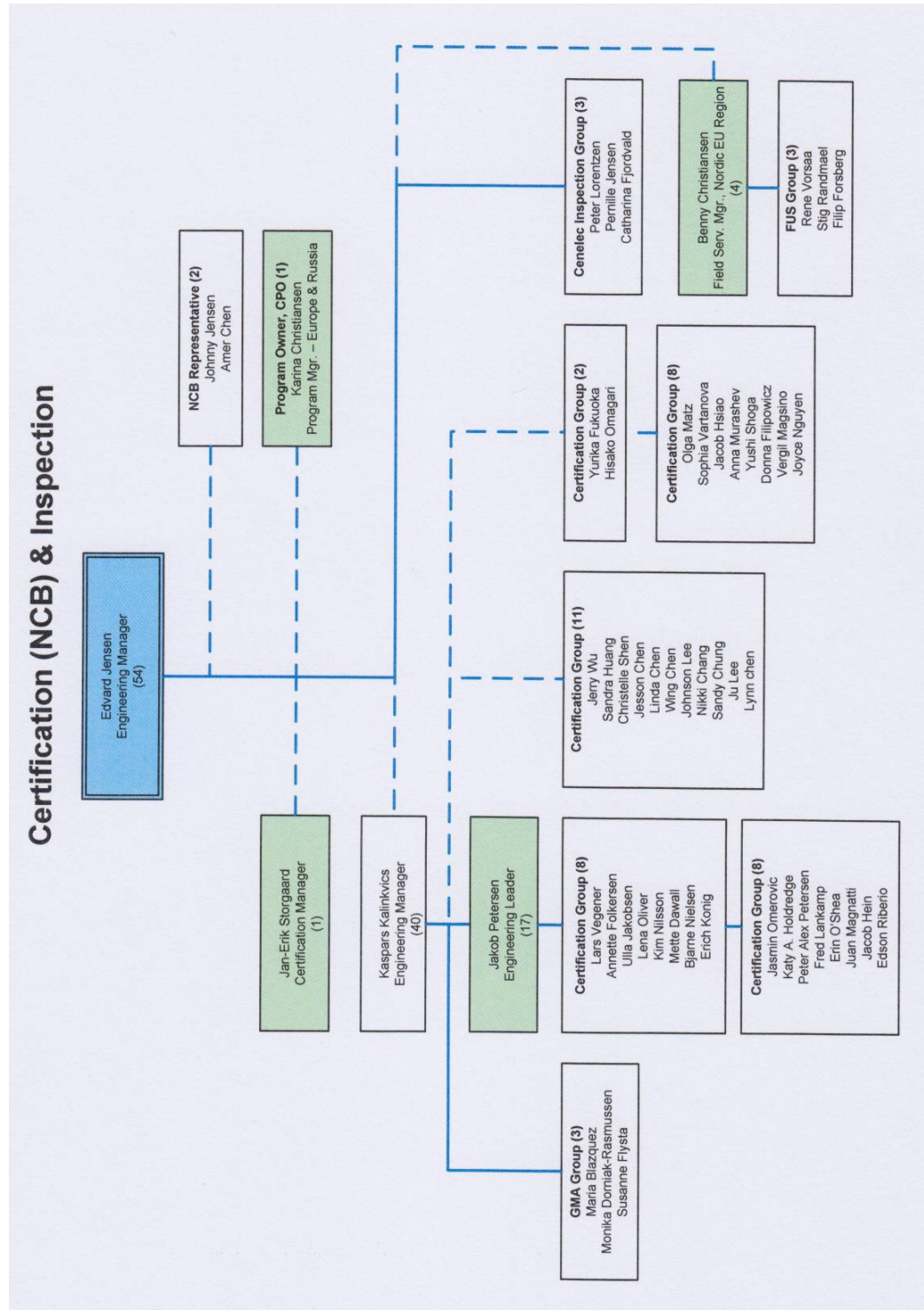
List of Annexes:

1. Overall Organization Chart of UL International Demko A/S
2. Organization Chart of the ExCB of UL International Demko A/S
3. Accreditation Certificate for ExCB for ISO/IEC Guide 65 (2 pages)

ANNEX 1: Overall Organization Chart of UL International Demko A/S



ANNEX 2: Organization Chart of the ExCB of UL International Demko A/S



ANNEX 3: ExCB Accreditation Certificate



Akkreditering til
Accreditation to

Certificering af produkter
Certification of Products

Reg.nr. 7011

Certificeringsorgan Certification body	UL International Demko A/S Lyskær 8, 2730 Herlev
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Akkrediteringsområde: Certificering af elektriske og elektroniske produkter, komponenter hertil samt installationsmateriel, ledninger og kabler for overensstemmelse med krav til elektrisk sikkerhed (Bilag 1 afsnit I).

Certificering af elektrisk materiel og elektriske sikringssystemer til anvendelse i eksplosionsfarlig atmosfære (Bilag 1 afsnit II).

De specifikke certificeringsordninger samt omfang af bedømmelse er anført i bilag 1 til dette dokument.

Scope of Accreditation: Certification of electrical and electronic products, components to these plus wires, cables and installation accessories for compliance with requirements to electrical safety (Annex 1 part I).

Certification of equipment and protective systems for use in explosive atmosphere (Annex 1 part II).

Specific agreements regarding this type of certification plus functions covered by this accreditation are listed in annex 1 to this document.

12. april 2011 til 1. december 2014

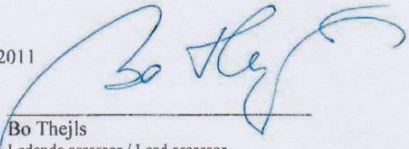
Gyldighedsperiode:
Valid:

Certificeringsorganet opfylder kravene i **DS/EN 45011 - Generelle krav til organer, der udfører produktcertificering**, samt de til enhver tid fastsatte bestemmelser angående dets virksomhed som akkrediteret selskab.



The certification body complies with the requirements in **DS/EN 45011 - General requirement for bodies operating product certification systems**, as well as regulations concerning the activities as an accredited certification body.



 Jesper Høj
 Direktør / Managing Director

12. april 2011
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 Bo Thejls
 Ledende assessor / Lead assessor

Dette dokument erstatter akkrediteringsdokument, reg. nr. 7011 af 2008.11.13.
This document replaces accreditation document, reg. no. 7011 issued 2008.11.13.
Oplysninger om  DANAK, se venligst www.danak.dk / Information on  DANAK, please consult www.danak.org

Den Danske Akkrediterings- og Metrologifond



I. Certification of electrical and electronic products, components to these plus wires, cables and installation accessories for compliance with requirements to electrical safety limited to:

Batteries	Electrical eq. for Medical use
Cables and Cords	IT and office equipment
Switches	Low voltage, high power switching eq.
Electromagnetic Compatibility	Installation protective equipment
Household and similar	Safety transformers and similar eq.
Installation accessories and connection devices	Portable tools
Luminaires	Electronics, entertainment
Measurement equipment	

Certification schemes:

- 1) ENEC- agreement (European Norms Electrical Certification)
- 2) NCS- agreement (Nordic Certification Services)
- 3) GS-agreement (German equipment and product safety act)
- 4) DEMKO (Danish Certification).

All above mentioned agreements are comprising type testing, surveillance by regular inspection of production and assessment of Quality Management System. For the ENEC agreement also regular sampling of products to be tested.

II. Certification of equipment and protective systems for use in explosive atmosphere

- 1) Compliance with requirements in statutory order no. 697 of 18/08/1995 from the Danish Ministry of Economic and Business Affairs concerning electrical material and electrical safety systems for use in explosive atmospheres (ATEX directive) limited to


Annex III, EC-type testing
Annex IX, Unit verification

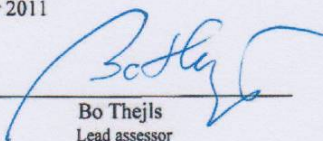
Certification system includes examination of technical documentation, verification and testing according to relevant standards

- 2) Compliance with requirements in the IECEx documents IECEx 01, edition 5.0 and IECEx 02, edition 4.0



Certification system includes initial testing and auditing of quality management system plus regular auditing of quality management systems. Auditing shall be performed by a certification body, which is accredited after ISO/IEC 17021 to certification according to requirements in IECEx 01 and IECEx 02 by an accreditation body which is recognised by EA (European Co-operation for Accreditation).

21 December 2011


Jesper Høy
Managing director


Bo Thejls
Lead assessor

Dette dokument erstatter bilag 1 af 12. april 2011. This document replaces Annex 1 issued 12 April 2011.

Oplysninger om  DANAK, se venligst www.danak.dk / Information on  DANAK, please consult www.danak.org