ExMC/1201/DV
January 2017

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

TITLE: Re-assessment and Scope Extension Report for the continued acceptance of Fyzikáln technický zkušební ústav , FTZU, (Physical Technical Testing Institute) an Accepted Certification Body, (ExCB), and Ex Testing Laboratory (ExTL) within the IECEx System, Equipment Scheme 02.

Circulation 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 and Scope Extension Report for the continued acceptance of Fyzikáln technický zkušební ústav, FTZU, as an Accepted Certification Body (ExCB) and Ex Testing Laboratory (ExTL) within the IECEx System, Equipment Scheme 02.

During the re-assessment, the IECEx Assessment Team took the opportunity to also assess FTZU's facilities, equipment and competence to undertake testing and certification to the Standards –

IEC/TS 60079-32-1 Edition 1.0 Explosive atmospheres - Part 32-1: Electrostatic Hazards - Guidance
IEC 60079-32-2 Edition 1.0 Explosive atmospheres - Part 32-2: Electrostatics hazards – Tests
ISO 80079-36 Edition 1.0 Explosive atmospheres - Part 36: Non-electrical equipment for explosive atmospheres – Basic method and requirements
ISO 80079-37 Edition 1.0 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"
ISO 16852 Edition 1.0Flame arresters - Performance requirements, test methods and limits for use

Please consider the assessment report and return the completed voting form,
(A separate Word document) by **2017 02 22** to the Secretariat

Chris Agius

Chris Agius

IECEx Secretariat

IECEx Secretariat
Australia Square
Level 33, 264 George Street
Sydney NSW 2000
Australia

Tel: +61 2 4628 4690
Fax: +61 2 4625 3480
Email: chris.agius@iecex.com

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 FTZU:

Fyzikáln technický zkušební ústav (Physical Technical Testing Institute)
Pikartska 7
CZ 71607 Ostrava-Radvanice

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

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(Update when report is complete – by right click, Update field, Update entire table)

1 Assessment information

1.1 Type of Body covered by this assessment:

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:

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

1.3 Details of body

1.3.1 Country

Czech Republic

1.3.2 Name of body

Fyzikálně technický zkušební ústav (Physical Technical Testing Institute) [FTZU]

1.3.3 Name and title of nominated principal contact

Name	Title	E-mail address
Mr Jaromir Hruby	Director	Hruby@ftzu.cz

1.4 Assessment information

1.4.1 Members of the assessment team

Name	Role
Ron Webb	Lead Assessor
Katy Holdredge	Expert Assessor

1.4.2 Place(s) of assessment

Fyzikálně technický zkušební ústav (Physical Technical Testing Institute) [FTZU], Pikartska 1337/7; CZ 71607 Ostrava-Radvanice

1.4.3 Assessment date(s)

28th November to 2nd December 2016 (6 man-days)

1.5 Scopes

1.5.1 ExCB scope for equipment certification scheme

Number	Title	Comments, e.g. if scope change
IEC 60079-0 Edition 6.0	Explosive atmospheres - Part 0: Equipment - General requirements	✓
IEC 60079-1 Edition 7.0	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures “d”	✓
IEC 60079-2 Edition 6.0	Explosive atmospheres - Part 2: Equipment protection by pressurized enclosure «p»	✓
IEC 60079-5 Edition 4.0	Explosive atmospheres - Part 5: Equipment protection by powder filling «q»	✓
IEC 60079-6 Edition 4.0	Explosive atmospheres - Part 6: Equipment protection by oil immersion «o»	✓
IEC 60079-7 Edition 5.0	Explosive atmospheres - Part 7: Equipment protection by increased safety "e"	✓
IEC 60079-11 Edition 6.0	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety “i”	✓
IEC 60079-13 Edition 1.0	Explosive atmospheres - Part 13: Equipment protection by pressurized room 'p'	✓
IEC 60079-15 Edition 4.0	Explosive atmospheres – Part 15: Equipment protection by type of protection "n"	✓
TR 60079-16 Edition 1.0	Artificial ventilation for the protection of analyzer houses	✓
IEC 60079-18 Edition 4.0	Explosive atmospheres – Part 18: Equipment protection by encapsulation “m”	✓
IEC 60079-25 Edition 2.0	Explosive atmospheres – Part 25: Intrinsically safe electrical systems	✓
IEC 60079-26 Edition 3.0	Explosive atmospheres - Part 26: Equipment with equipment protection level (EPL) Ga	✓
*IEC 60079-27 Edition 2.0	Explosive atmospheres – Part 27: Fieldbus intrinsically safe concept (FISCO)	✓
IEC 60079-28 Edition 2.0	Explosive atmospheres - Part 28: Protection of equipment and transmission systems using optical radiation	✓
IEC 60079-29-1 Edition 1.0	Explosive atmospheres - Part 29-1: Gas detectors – Performance requirements of detectors for flammable gases	✓
IEC 60079-30-1	Explosive atmospheres – Part 30-1: Electrical resistance	✓

Number	Title	Comments, e.g. if scope change
Edition 1.0	trace heating – General and testing requirements	
IEC 60079-31 Edition 2.0	Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure "t"	✓
IEC/TS 60079-32-1 Edition 1.0	Explosive atmospheres - Part 32-1: Electrostatic Hazards - Guidance	Scope extension
IEC 60079-32-2 Edition 1.0	Explosive atmospheres - Part 32-2: Electrostatics hazards - Tests	Scope extension
IEC 60079-35-1 Edition 1.0	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	✓
IEC 60079-35-2 Edition 1.0	Explosive atmospheres – Part 35-2: Caplights for use in mines susceptible to firedamp – Performance and other safety-related matters	✓
ISO 80079-36 Edition 1.0	Explosive atmospheres - Part 36: Non-electrical equipment for explosive atmospheres – Basic method and requirements	Scope extension
ISO 80079-37 Edition 1.0	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”	Scope extension
ISO 16852 Edition 1.0	Flame arresters - Performance requirements, test methods and limits for use	Scope extension
*IEC 61241-0 Edition 1.0	Electrical apparatus for use in the presence of combustible dust - Part 0: General requirements	✓
*IEC 61241-1 Edition 1.0	Electrical apparatus for use in the presence of combustible dust - Part 1: Protection by enclosure “tD”	✓
*IEC 61241-4 Edition 1.0	Electrical apparatus for use in the presence of combustible dust - Part 4: Protection by pressurization "pD"	✓
*IEC 61241-11 Edition 1.0	Electrical apparatus for use in the presence of combustible dust – Part 11: Protection by intrinsic safety 'iD'	✓
*IEC 61241-18 Edition 1.0	Electrical apparatus for use in the presence of combustible dust - Part 18: Protection by encapsulation "mD"	✓
*IEC 62013-1 Edition 2.0	Caplights for use in mines susceptible to firedamp - Part 1: General requirements - Construction and testing in relation to the risk of explosion	✓

Number	Title	Comments, e.g. if scope change
*IEC 62013-2 Edition 2.0	Caplights for use in mines susceptible to firedamp - Part 2: Performance and other safety-related matters	✓
DS 2015/001A	IECEx Assessment and Certification of Equipment assemblies	✓

NOTE 1 Standards shown with an asterisk (*) are superseded standards

NOTE 2 Unless otherwise indicated, earlier editions of standards (even if with a different number) are considered to be covered in the above scope for the purposes of the assessment.

NOTE 3 The above list highlights any extension of scope in the list above for new standards or later editions of standards already in scope.

1.5.2 ExTL scope

Same as 1.5.1.

1.5.3 ExCB scope for Service Facilities Scheme

Not applicable

1.5.4 ExCB scope for ExMark Scheme

Not applicable

2 Common information

2.1 Legal entity of body

The associated ExCB is integral with the ExTL at the same site, and has same legal identity.

FTZU is owned by the Czech Government but are not financed by the state budget operating on the self – financing principle of non-profit organization. All profits are invested back in the organisation. FTZU is a notified body for the testing and certification of equipment and protective systems intended for use in explosive atmospheres in the Czech Rep. according to 2014/34/EU Equipment and protective systems intended for use in potentially explosive atmospheres.

2.2 Financial support

As above, FTZU is self-financing state owned company without financial support from Government or other companies.

2.3 History

As a part of Mining Research Institute at Ostrava-Radvanice, the explosion testing laboratory was originally established in 1952, and with operated as the first “National Testing and Approval Authority for devices used into potentially explosive atmospheres” in 1968. In 1991 the testing and approval department was separated from the Mining Research Institute (VVUU) being as an independent Physical Technical Testing Institute (Fyzikálně technický zkušební ústav- FTZU) based at Ostrava-Radvanice.

FTZU was formally registered as a company on 27 December 1990, No. 005 77 880. In 1997 FTZU was awarded a statute of National Authorized Body No. AO 210 to the new law regulation (Act No.22/1997 Coll.) for technical requirements on products. In 2001 it became a Notified Body with number 1026 for 94/9/EC Directive (ATEX100) and in 2016 for 2014/34/EU Directive (new ATEX). In 2006, as national member body in the IECEx System FTZU was fully accepted as ExCB and ExTL within the IECEx System.

2.3.1 Quality manual

The FTZU has a Quality Manual for the Certification Body and a Quality Manual for the Test Laboratory. Both were found to meet the requirements of the IECEx.

2.3.2 Procedures

All the necessary procedures according to ISO/IEC 17065 and ISO/IEC 17025 described in the ExCB's and ExTL's Quality Manuals. FTZU used IECEx rules, operational documents, standards, ExTAG decision sheets, and instruction manual for use of various equipment and measuring instruments as procedures/working instructions. Procedures are written in QM's and IECEx certification procedures – internal document of FTZU.

2.3.3 Work instructions

FTZÚ has a comprehensive Safety Manual for FTZU, including the safe operation of the testing laboratory. In addition, the self-calibration methodologies for dynamic pressure sensors, digital measuring devices, analogue measuring devices and thermocouples are properly documented. Test procedures are described in relevant standards.

2.3.4 Records (including test records where relevant)

Records of all test data including test reports, documentation from manufacturer are preserved in accordance with the requirements described in the Quality Manuals. All records regarding the product testing are preserved in a locked archive at FTZÚ premises. The documentation relating to product testing can be borrowed by ExTL personnel, and each folder borrowing is recorded. Records are kept in paper form in archive and in electronic form in personal computers.

2.3.5 Document change control

The procedure on document change control is described in the Quality Manuals. It includes a requirement on regular checks of those being used in the workplace. All personnel especially the head of testing laboratory have a duty to submit their suggestions for changes and modifications to documentation, and changes in the quality manual are to be approved by the director of the institute and the head of the testing laboratory.

2.4 Confidentiality

(For staff, contractors and members of advisory bodies)

For protection of confidential information and proprietary rights the director's guidelines No. 2/91 are applied, and the specific procedures and requirements are specified in Quality Manuals. All the employees of the testing laboratory and Certification Body are required to familiarize with the ban on the provision of confidential information to external/foreign personnel without the prior consent of the owner – customer, and sign a declaration about fair-mindedness and confidentiality, which forms a part of employment contract.

2.5 Communication with public and customers (Hard copy and Electronic)

The basic information about FTZU as well as their IECEx operation can be found on website at www.ftzu.cz. The FTZU issues annual publication as a guide for customer describing the certification procedure which also includes IECEx certification.

2.6 Recognitions and agreements

Since the year of 2001, FTZÚ operates as a European notified body according to ATEX Directive, and its certificates and test reports are acceptable in Europe. FTZÚ cooperates with several test laboratories (for example, SQI), but this cooperation is only occasional and mostly FTZÚ serves as source of information or provider of special tests.

FTZU has national accreditation as a testing laboratory for the testing of electrical and non-electrical equipment and protective systems from ILAC member, the Czech Accreditation Institute according to CSN EN ISO/IEC 17025 and ČSN EN ISO/IEC 17065.

2.7 Internal audit

Internal audits are described in the quality manual. Internal audits are planned and regularly carried out by qualified assessors and output is the major sources for continuous improvement of all processes. The last completed audit was from 2 November to 6 November 2015. All issues raised for the Certification Body and Test Laboratory were completed satisfactorily.

2.8 Management review

Management review is described in the quality manuals. Management reviews are planned and regularly carried out with the primary goals being the verification of the quality management system function and continuous improvement of all processes. The last management review was on 16 January 2016. This covered IECEx amongst other items. The documentation was checked during the assessment and found to meet the requirements of the IECEx.

2.9 Contracting, subcontracting and witness testing

2.9.1 Contracting

At the present time, ExCB of FTZÚ does not utilise any subcontractors. The tests are provided in own ExTL FTZU that is a part of Physical Technical Testing Institute.

2.9.2 Witness testing

FTZÚ, within the framework of possibilities and with regards to safety, will enable its customers, or their representatives, participation in tests of their products, or, if so required by customers, FTZÚ will prepare a video recording of tests. In doing so, the principles of confidentially in relation to the products and test results of other customers must be retained. The principles for participation of customers at tests are specified in the director's order No: 2/91. 2.9.2 Witness testing.

FTZU carry out witness testing at customer's premises very rarely. FTZU do not utilize any testing at third party premises. The witness tests concern testing of big product (e.g. big electromotor) at the manufacturer/customer premises. FTZU have not carried out any IECEx witness testing up to the time of the reassessment. Nevertheless if necessary, the procedure for witness test is described in part 7 of FTZU's Quality manual. "Witness test at manufacturer" referenced to OD 024 procedure. This was checked and found to meet the requirements of the IECEx.

2.10 Training and competence

According to the qualification policy of FTZU, the management support internal training and any external education of employees, including new technologies, languages and University study.

The training of all personnel is planned biyearly and evaluated annually. During the assessment, examples of training evidences with external and internal training were checked according to plan, it is noted that the training covers the latest IEC standards.

Details of staff competencies are included in the site assessment report.

2.11 Complaints and appeals (including appeals to IECEx)

There is a special procedure described in the CB QM for complaints and appeals. This procedure was checked during the assessment and found to meet the requirements of the IECEx. There have been no complaints in the last five years.

2.12 Commenting on ExTAG Documents

In Czech Republic, the ExTAG Documents go to ÚNMZ Praha (Czech national standardization body) and FTZÚ Ostrava and then are processed in the same way like other documents from IEC (DC, CD, CDV, FDIS, Q). Evidence of voting and commenting on ExTAG documents was provided.

2.13 Special facts to be noted

None.

2.14 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 or provided separately and include:

- Details of issues raised and how these have been resolved
- Checklist for ISO/IEC 17065
- Checklist for ISO/IEC 17025
- Completed Technical Capability Document (TCD)
- Photos of the facilities/tests witnessed are included in the above TCD
- Assessors' notes

2.15 Recommendations

Based on the assessment performed on 28 November to 2 December, FTZU is recommended for continued acceptance in the IECEx scheme as:

- An ExCB in the IECEx Certified Equipment Scheme;
- An ExTL in the IECEx Certified Equipment Scheme; and
- With scope extension as indicated in 1.5.

This is according to the scope of the standards listed in this document including the extension of scope.

Ron Webb	Katy Holdredge
Lead Assessor	Expert Assessor

Date: 2 December 2016

3 ExCB for IECEx Certified Equipment Scheme

3.1 Assessment references

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

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

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

c) OD009 Issuing of CoCs, ExTRs and QARs

d) 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

e) OD026 IECEx Certified Equipment Scheme – Guidelines for the qualification of Lead Auditor and Auditors, in accordance with the IECEx System

f) ISO/IEC 17065: 2012, Edition 1, General requirements for bodies operating product certification systems Conformity assessment — Requirements for bodies certifying products, processes and services

g) IECEx Document OD17 Drawing and documentation guidance

h) IECEx Technical Capability Document (TCD)

i) ExTAG decision sheets (DSs)

j) OD280 Certified Equipment Scheme – Guide to Certification of Non-electrical Equipment and Protective Systems

NOTE The latest editions of the above documents were applied

3.2 Candidate ExCB persons interviewed

Name	Position
Lukáš Martinák	Head of CB
Martin Zámrský	Deputy of head of CB

3.3 Associated ExTL(s)

Only FTZÚ ExTL.

3.4 Associated certification functions

All certification functions are provided by ExCB. FTZU operates as a Certification Body (in compliance with ISO/IEC 17065). The accreditation certificate is attached to this report as Annex C. FTZU is a Notified Body for the ATEX 2016 for 2014/34/EU Directive. The notified body number is NB 1026.

3.5 National marks and certificates

Not used – FTZÚ is a Notified Body and issue ATEX certificate according to European rules.

3.6 Standards accepted

See clause 1.5 of this report

3.7 National differences to IEC standards

National differences to IEC standards are those for the EU countries differences listed in the latest version of the IECEx Scheme Bulletin.

3.8 Organisation

3.8.1 Names, titles and experience of the senior executives

Name	Title	Experience
Hrubý, Jaromír	Director	38 years
Martinák, Lukáš	Head of CB	8 years
Zámrský, Martin	Deputy of head of CB	12 years

3.8.2 Name, title and experience of the quality management representative

Name	Title	Experience
Pohludka, Jan	QM	37 years, 27 years in QM

3.8.3 Name and title of signatories for certification

Name	Title
Martinák, Lukáš	Head of CB
Zámrský, Martin	Deputy of head of CB

3.8.4 Other employees in ExCB activity

Listed in site report

3.9 Organizational structure

Overall organisation chart - See Annex A

Organisation Chart of ExCB and ExTL – See Annex B

3.10 Indemnity insurance

FTZÚ has an insurance contract (GENERALI) regarding possible harm emerging from activities of certification body and testing laboratory to increase the credibility of FTZÚ, policy number 2901299939 from Generalni Pojisfovna.

3.11 Resources

The FTZÚ use for tests only own ExTL and for certification activities on own ExCB employees.

There are 10 persons involved in the ExCB activity and 12 persons involved in the ExTL together with several test engineers (technicians). Adequate administration staff are available.

3.12 Committees (such as governing or advisory boards)

The correct operation of the certification body FTZÚ during product certification is supervised by a certification board. The certification board is established by the director of FTZÚ as its consultancy body on the proposal of management of FTZÚ. The certification board consists of

members representing manufacturers, users and government bodies. The procedure and the confidentiality agreements of all members were checked during the assessment and found to meet the requirements of the IECEx.

3.13 Certification operations

3.13.1 National approval/certification methods

The FTZÚ has accreditation from Czech Institute for accreditation according to ISO/IEC EN 17025 and ISO/IEC EN 17065, it is authorized according to Czech law as a state test house and it is a Notified Body No. 1026 according to ATEX Directive (for certification in EU).

3.13.2 Certification policy

The management of FTZÚ have issued the below-mentioned quality policy strategy:

FTZÚ is a testing organisation with a long-term tradition and good position on the domestic market, and partially abroad. Therefore, the priority task of FTZÚ is to ensure tests to the extent of competence on a high quality level so that the testing process would be on a level of notified foreign testing laboratories in the EU and built authority of certification body in field of product certification and conformity assessment in accordance with Government Order, IECEx certification system and European Directive 2014/34/EU, providing technical requirements for equipment and protective systems intended to be used in hazardous areas at the level complying the European certification scheme, based on standard ČSN EN ISO/IEC 17065 a MPA 40-01- and create conditions for good position of FTZÚ on a foreign market as notified body in that scheme.

The institute intends to create for its employees conditions to maintain and increase their professional level in field of testing and certification of electrical equipment (generally) and products intended to be used in hazardous areas, including improvement of their language abilities.

The FTZÚ and CB management due to wide range of standards and very often modification of standards and necessity of quick reaction to these modifications prepare condition for flexible accreditation according to MPA 30-04-.. and MPA 00-09-.. (valid version) to allow continuous application of actual standards for certification purposes.

3.13.3 Application for certification

It is given in Annex 9 of QM and can be found on FTZÚ websites. During the assessment it was checked and found to meet with the IECEx requirements.

3.13.4 Certification decision

The certification decision belongs to the Head of the certification body or the deputy of head of the CB and to the director of FTZÚ but it is always necessary to fulfil the condition that the decision cannot be made by the person who carried out the assessment of the product. The decision is made on the basis of complete file of case, including documentation, test reports end check lists.

3.13.5 Suspension and cancellation of certificates

The cancellation of a licence contract is possible on the basis of manufacturer application (selection of other module), termination of production, dissolution of producer etc.

The reasons for certificate withdrawal or suspension can be:

a) The certificate holder doesn't observe the specified conditions, relating to the quality system of production or evaluation of conformity of product or

b) The certificate is used in connection with products, that are not conforming with documentation and conditions specified in certificate

c) The certificate is used in such a way that can be misleading for user

d) The holder doesn't pay any fees of expenses related to the certification, surveillance of quality system and audits

e) The manufacturer was cancelled (bankruptcy, liquidation and etc.)

In the IECEx System, the condition for withdrawal and cancellation of certificates can be found in IECEx 02 Rules of Procedure, clause 9.12.

The holders can lodge an appeal against the cancellation of licence contract or suspension or withdrawal of certificate within one month. Each appeal is solved according to procedures mentioned in chapter 14 of the quality manual.

The withdrawal of a certificate is announced by the head of the certification body by letter, that also requires the certificate holder to return all certificate copies and inform the holder, that products can no longer be put on the market without certificate and it is not allowed to use reference to the certificate.

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):

Standard numbers	Type of protection or other identifying information	Number of issued certificates (for last 4 years)				Total
IEC 60079-1	Ex d	35	22	28	32	117
IEC 60079-2	Ex p	3	2	3	4	12
IEC 60079-7	Ex e	6	7	5	7	25
IEC 60079-11	Ex i	28	35	37	26	126
IEC 60079-15	Ex n	1	2	4	3	10
IEC 60079-16	Analyser houses	-	-	1	2	3
IEC 60079-18	Ex m	2	4	4	3	13
IEC 60079-26	Ga	10	22	17	13	62
IEC 60079-28	Optical radiation	1	2	1	-	4
IEC 60079-29-1		3	4	4	4	15
IEC 60079-31		13	14	11	17	55
IEC 60079-35		4	5	4	3	16
ISO 80079-36	According to EN 13463 series	(15)	(22)	(27)	(14)	(78)
ISO 80079-37	According to EN 13463 series	(15)	(22)	(27)	(14)	(78)

Standard numbers	Type of protection or other identifying information	Number of issued certificates (for last 4 years)				Total
ISO 16852	Flame arresters	2	5	3	2	12

NOTE Above include certificates to IEC 60079-0 unless otherwise shown

3.15 National accreditation

National accreditation according to ISO/IEC EN 17065 is valid to January 2017. The next visit is due in December 2016.

3.16 Assessment of manufacturers and issue of QARs

The FTZÚ has about 130 customers where the QAR (or QAN for ATEX directive) were issued. The assessment is carried out by fully qualified personnel.

3.17 Comments (including issues found during assessment)

There were some issues found during the site assessment related to missing references to IECEx documents the quality manual. Detailed information on this is shown in the site assessment report. Some issues were due to information not being immediately available during the assessment but subsequently provided

All issues have been resolved to the satisfaction of the assessment team.

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

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

c) IECEx OD009 Issuing of CoCs, ExTRs and QARs

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

e) IECEx Document OD17 Drawing and documentation guidance

f) IECEx Technical Capability Document (TCD)

g) ExTAG decision sheets (DSs)

h) OD280 Certified Equipment Scheme – Guide to Certification of Non-electrical Equipment and Protective Systems

NOTE The latest editions of the above documents were applied.

4.2 Candidate ExTL persons interviewed

Name	Position
Tomáš Štula	Head of TL
Jan Hes	Technician of TL

4.3 Associated ExCB(s)

ExCB of FTZÚ only

4.4 Organisation

4.4.1 Names, titles and experience of the senior executives

Name	Title	Experience
Jaromír Hrubý	Director	38 years
Tomáš Štula	Head of TL	8 years
Ladislav Byrský	Deputy of Head of TL	35 years

4.4.2 Name, title and experience of the quality management representative

Name	Title	Experience
Jan Pohludka	QM	36 years

4.4.3 Other employees in ExTL activity

Listed in the site report.

4.5 Organizational structure

See Annex B

4.6 Resources

The FTZÚ use for tests only own ExTL and for certification activities on own ExCB employees.

There are 10 persons involved in the ExCB activity and 12 persons involved in the ExTL together with several test engineers (technicians). Adequate administration staff are available.

4.7 Test reports issued

Number of test reports (ExTRs) 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 ExTRs should be shown (test reports for other schemes may also be shown):

Standard numbers	Type of protection or other identifying information	Number of issued reports (ExTRs) (for last 4 years)				Total
IEC 60079-1	Ex d	35	22	28	32	117
IEC 60079-2	Ex p	3	2	3	4	12
IEC 60079-7	Ex e	6	7	5	7	25
IEC 60079-11	Ex i	28	35	37	26	126
IEC 60079-15	Ex n	1	2	4	3	10
IEC 60079-16	Analyser housing	-	-	1	2	3
IEC 60079-18	Ex m	2	4	4	3	13
IEC 60079-26	Ga	10	22	17	13	62
IEC 60079-28	Optical radiation	1	2	1	-	4
IEC 60079-29-1		3	4	4	4	15
IEC 60079-31		13	14	11	17	55
IEC 60079-35		4	5	4	3	16
ISO 80079-36	According to EN 13463 series	(15)	(22)	(27)	(14)	(78)
ISO 80079-37	According to EN 13463 series	(15)	(22)	(27)	(14)	(78)
ISO 16852		2	5	3	2	12

NOTE Above include reports to IEC 60079-0 unless otherwise shown

4.8 National accreditation

National accreditation according to ISO/IEC EN 17025 is valid to January 2021.See Annex D of this report

4.9 Calibration

FTZÚ only use accredited calibration laboratory and has its own calibration laboratory for calibration of piezoelectric pressure sensors and thermocouples and some electrical measuring instruments. A sample of the in-house calibration of piezoelectric pressure sensors and the associated instructions was reviewed and found in accordance with the requirements of ISO 17025 and the IECEx.

4.10 Witnessed Tests

The following tests were witnessed during the assessment visit:

Standard and edition	Clause number	Test	Comments
IEC 60079-0: 2011	26.13	Surface resistance test of parts of enclosures of non-metallic material	Acceptable
IEC 60079-0: 2011	26.4.5	Degree of protection (IP) by enclosures IP6X	Acceptable
IEC 60079-1: 2014	15.2.2	Determination of explosion pressure (reference pressure) (Group IIB)	Acceptable
IEC 60079-1: 2014	15.2.3	Overpressure test	Acceptable, dynamic method used
IEC 60079-1: 2014	15.3	Test for non-transmission of an internal ignition (Group IIB)	Acceptable
IEC 60079-7: 2015	6.3.4.1.1	Level of Protection “eb”, rectification	Acceptable
IEC 60079-11: 2011	10.1	Spark ignition (Group IIC, Ga)	Acceptable
IEC 60079-11: 2011	10.5.3	Temperature rise on (high capacity) batteries	Acceptable
IEC 60079-18: 2014	8.1.2	Dielectric strength test	Acceptable
IEC 60079-28: 2015	5.2.2.3	Optical irradiance (LED array for Gb)	Acceptable
IEC 60079-29-1: 2007	5.4.16	Time of response	Acceptable
IEC 60079-30-1: 2007	5.1.4	Flammability test	Acceptable
IEC 60079-31:2013	6.1.2	Thermal (“ta”) test	Acceptable
IEC 60079-32-2, Ed. 1.0	4.2	Surface resistance	Acceptable
IEC 60079-32-2, Ed. 1.0	4.11	Transferred charge	Acceptable
IEC 60079-32-2, Ed. 1.0	4.14	Breakdown voltage	Acceptable

4.11 Participation in IECEx Proficiency Testing Program

Program: PTB Ex PT Scheme

IECEx Proficiency Testing program	Program years	Participated? Y/N/NA	Results in relation to assigned value	Other comments, including whether results are considered satisfactory
Program 1 "Explosion pressure"	2011-2012	Y	Results in range of standard deviation of assigned values	Results were considered satisfactory
Program 2 "Spark ignition	2011-2012	Y	Most results in range of standard deviation of assigned values, for circuit 2 there was a doubt (majority TL obtains the same results as FTZÚ (non-incendive sparks)	Results were considered satisfactory, but FTZÚ sparking device was a less sensitive – FTZÚ management decided to build a new modern test equipment – finished in 2015, verified OK
Program 3 "Flame Transmission"	2013-2014	Y	Results in range of standard deviation of assigned values	Results were very good, practically the same like assigned values
Program 4 "Temperature Classification"	2013-2014	Y	Results in range of standard deviation of assigned values	Results were considered satisfactory
Program 5 "Electrostatic Charge"	2015-2016	Y	Results in range of standard deviation of assigned values	Results were very good, practically the same like assigned values
Program 6 "Intrinsic Safety"	2015-2016	Y	Program wasn't properly prepared – all TL's failed (even PTB)	The FTZÚ results were above average values (in %)

4.12 Comments (including issues found during assessment)

There were some issues found during the site assessment related to the parameters of the spark test apparatus and documentation on dusts used for thermal and IP testing. Detailed information on this is shown in the site assessment report.

All issues have been resolved during the assessment to the satisfaction of the assessment team

5 Annexes

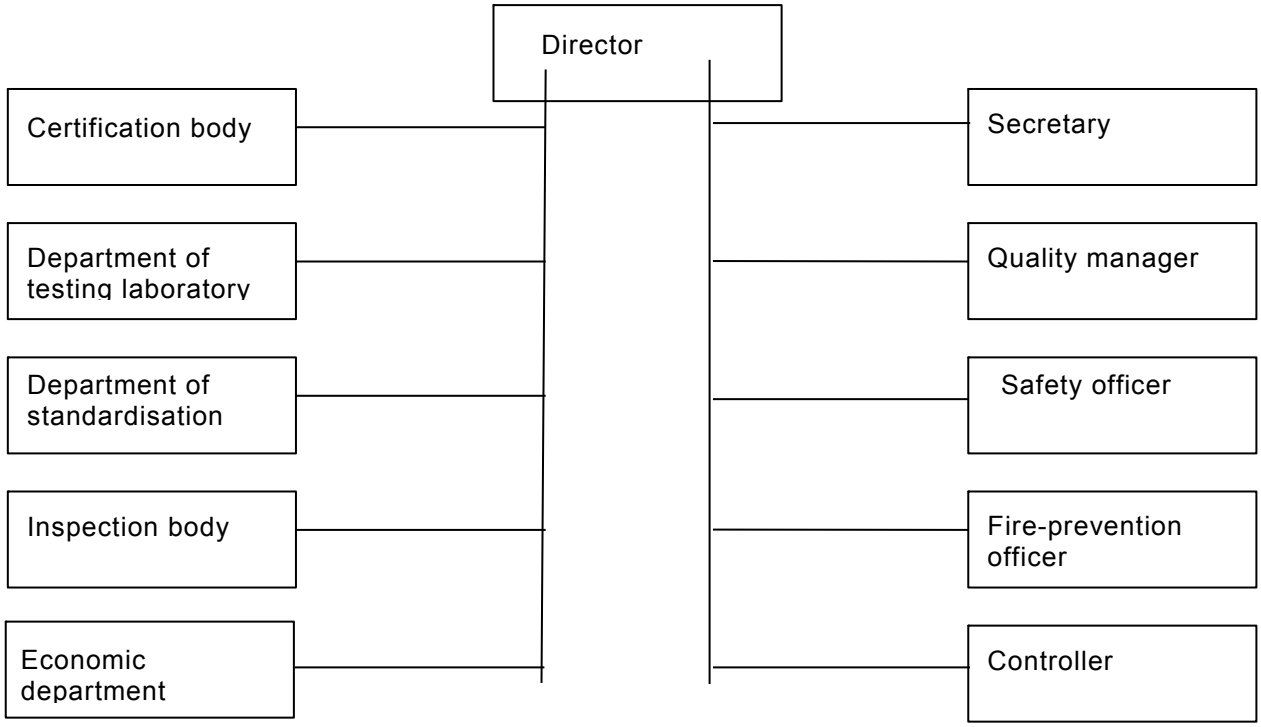
ANNEX A Overall Organisation Chart

ANNEX B Organisation Chart of ExCB and ExTL

ANNEX C Accreditation Certificate for ISO/IEC 17065

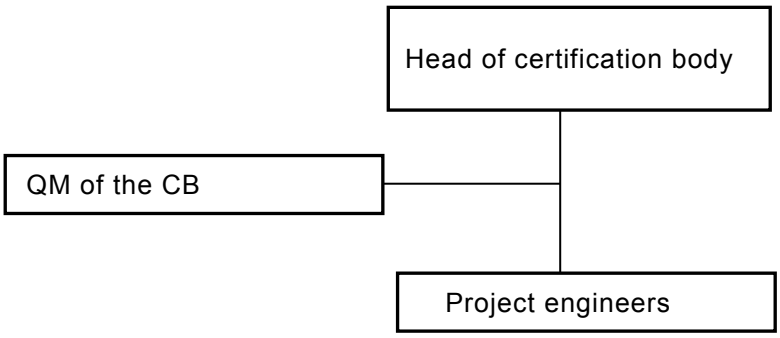
ANNEX D Accreditation Certificate for ISO/IEC 17025

Annex A
Overall Organisation Chart

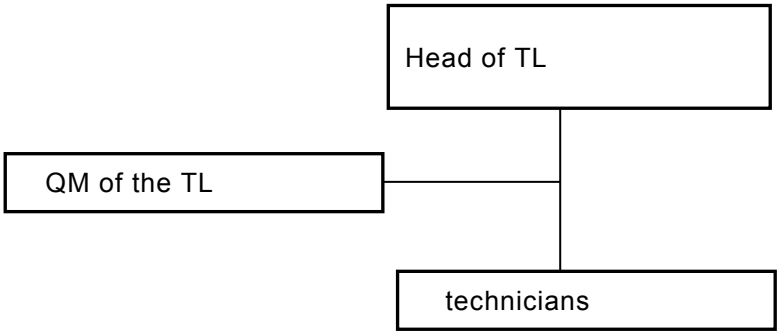


Annex B
Organisation Chart of ExCB and ExTL

The organisational scheme of the CB is shown below.



The organisational scheme of the TL is shown below.



Annex C Accreditation Certificate for ISO/IEC 17065

NÁRODNÍ AKREDITAČNÍ ORGÁN

EA MLA Signatory
Český institut pro akreditaci, o.p.s.
Olšanská 54/3, 130 00 Praha 3

issues

according to section 16 of Act No. 22/1997 Coll., on technical requirements for products, as amended

CERTIFICATE OF ACCREDITATION

No. **96 / 2016**

FYZIKÁLNĚ TECHNICKÝ ZKUŠEBNÍ ÚSTAV, státní podnik
with registered office Pikartská 1337/7, 716 07 Ostrava - Radvanice, Company Registration No. 00577880

to the Certification Body No. **3051**
Certification Body

Scope of accreditation:

Certification of electrical and non-electrical equipment and protective systems for explosive atmospheres, pumps, switch boards, electric motors, spray guns, electrical equipment of machines and gas detectors to the extent as specified in the appendix to this Certificate.

This Certificate of Accreditation is a proof of Accreditation issued on the basis of assessment of fulfillment of the accreditation criteria in accordance with

ČSN EN ISO/IEC 17065:2013

In its activities performed within the scope and for the period of validity of this Certificate, the Body is entitled to refer to this Certificate, provided that the accreditation is not suspended and the Body meets the specified accreditation requirements in accordance with the relevant regulations applicable to the activity of an accredited Conformity Assessment Body.

This Certificate of Accreditation replaces, to the full extent, Certificate No.: 131/2015 of 23 February 2015, or any administrative acts building upon it.

This Certificate is valid until: **24 January 2017**

Prague: 16 February 2016

Jiří Růžička
Director
Czech Accreditation Institute
Public Service Company

Annex D Accreditation Certificate for ISO/IEC 17025

NÁRODNÍ AKREDITAČNÍ ORGÁN

EA MLA Signatory
Český institut pro akreditaci, o.p.s.
Olšanská 54/3, 130 00 Praha 3

issues

according to section 16 of Act No. 22/1997 Coll., on technical requirements for products, as amended

CERTIFICATE OF ACCREDITATION

No. **839 / 2015**

FYZIKÁLNĚ TECHNICKÝ ZKUŠEBNÍ ÚSTAV, státní podnik
with registered office Pikartská 1337/7, 716 07 Ostrava - Radvanice, Company Registration No. 00577880

to the Testing Laboratory No. **1019**
Testing Laboratory

Scope of accreditation:

Testing of electric and non-electric equipment and protection systems for explosive atmospheres; testing of electric equipment, gas analyzers, oxygen meters, electrostatic properties of materials; testing of electromagnetic resistance of electric equipment to the extent as specified in the appendix to this Certificate.

This Certificate of Accreditation is a proof of Accreditation issued on the basis of assessment of fulfillment of the accreditation criteria in accordance with

ČSN EN ISO/IEC 17025:2005

In its activities performed within the scope and for the period of validity of this Certificate, the Body is entitled to refer to this Certificate, provided that the accreditation is not suspended and the Body meets the specified accreditation requirements in accordance with the relevant regulations applicable to the activity of an accredited Conformity Assessment Body.

This Certificate of Accreditation replaces, to the full extent, Certificate No.: 243/2015 of 07 April 2015, or any administrative acts building upon it.

The Certificate of Accreditation is valid until: **8 December 2020**

Prague: 8 December 2015

Český institut pro akreditaci, o.p.s.
-2-

Jiří Růžička
Director
Czech Accreditation Institute
Public Service Company