



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

Title: Re-assessment Report for the continued acceptance of BKI ExVÁ Testing Station of Explosion Proof Equipment as an Ex Certification Body (ExCB)

To: Members of the IECEx Management Committee, ExMC

Introduction

This document contains the IECEx Re-assessment Report for BKI ExVÁ Testing Station of Explosion Proof Equipment as an Ex Certification Body (ExCB) in accordance with the surveillance and monitoring 5-year Re-assessment plan, for bodies under the IECEx Scheme.

This Report also covers assessment for the extension of scope and is issued for voting by 28th April 2006

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IECEx RE-ASSESSMENT REPORT FORM

For Accepted Ex Certification Body (ExCB)

1. OBJECT AND FIELD OF APPLICATION

1.1 *Country*

Hungary

1.2 *ExCB under Re-Assessment*

Certification Body of BKI ExVÁ Testing Station of Explosion Proof Equipment
(Robbanásbiztos Berendezések Vizsgáló Állomása Kft)

1.3 *Members of the Assessment Team*

Jim Munro, Lead Assessor
Ian Cleare, Assessor

1.4 *Place and Date of Re-Assessment*

H-1037 Budapest, Mikoviny S. u. 2-4.

10-11 March 2005

26 September 2005 by Team Leader regarding ExTL follow up matters

1.5 *Assessment References*

Document:

- i) IECEx 02 Second Edition
- ii) IECEx Operational Document OD/009/V1
- iii) ISO/IEC Guide 65 1996

1.6 *Current Scope of Acceptance*

Product Category

	Standard
General Requirements	IEC 60079-0
Flameproof 'd'	IEC 60079-1
Pressurization 'p'	IEC 60079-2
Powder filling 'q'	IEC 60079-5
Oil-immersion 'o'	IEC 60079-6
Increased safety 'e'	IEC 60079-7
Intrinsic safety 'i'	IEC 60079-11
Type of protection 'n' (Non-incendive)	IEC 60079-15
Encapsulation 'm'	IEC 60079-18

Electrical apparatus for the detection and measurement of flammable gases	IEC 61779-1
General requirements and test methods	

Performance requirements for group I apparatus indicating a volume fraction up to 5% methane in	IEC 61779-2
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Performance requirements for group I apparatus indicating a volume fraction up to 100% methane in air	IEC 61779-3
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Performance requirements for group II apparatus indicating up to 100% lower explosive limit IEC 61779-4

Performance requirements for group II apparatus indicating a volume fraction up to 100% gas IEC 61779-5

1.7 *Any changes in Scope*

BKI-ExVA had requested that the following standards be added to their accepted ExCB scope (see 15. Recommendations):

Electrical apparatus for use in the presence of combustible dust Part 0: General requirements IEC 61241-0

Electrical apparatus for use in the presence of combustible dust Part 1: Electrical apparatus protected by enclosures IEC 61241-1

Electrical apparatus for use in the presence of combustible dust Part 1: Electrical apparatus protected by enclosures IEC 61241-1-1
Section 1: Specification for apparatus

Electrical apparatus for use in the presence of combustible dust IEC 61241-4
Part 4: Type of protection 'pD'

Electrical apparatus for use in the presence of combustible dust IEC 61241-18
Part 18: Protection by encapsulation 'mD'

1.8 *ExCB Persons Interviewed*

Name	Position
János MÜLLNER	Head of the Certification Body
Béla DENCZ	Leader of Archives
Edit MOLNAR	Quality Management Rep. ExTL
János TÓKÉS	Trainee, ExTL
János HANKÓ	Director
Note: Mr Tihanyi, Quality Management Representative ExCB was absent due to illness.	

1.9 *Any changes in Legal Status of the ExCB*

BKI-ExVA stated that there had been no change in the legal status of the company since the original assessment in 1999.

1.10 *Associated Testing Laboratories*

Names of Laboratories	Address
Testing Laboratory of BKI-ExVA	H-1037 Budapest, Mikoviny S. u. 2-4.

1.11 *National Marks and Certificates*

National mark of BKI-ExVA



BKI-ExVA is an ATEX Notified Body, designated by Ministry of Economy and Transport – 065/2003.

1.12 *Financial Support*

BKI-ExVA is a wholly-owned company belonging to the Hungarian Government, but is stated as relying entirely on the income generated from its testing, certification and inspection activities to fund its operating and investment costs.

1.13 *Standards Accepted*

BKI-ExVA stated that the following standards were accepted in Hungary for national certification:

IEC 60079-0	IEC 61241-0
IEC 60079-1	IEC 61241-1-1
IEC 60079-2	IEC 61241-4
IEC 60079-5	IEC 61241-18
IEC 60079-6	IEC 61779-1
IEC 60079-7	IEC 61779-2
IEC 60079-11	IEC 61779-3
IEC 60079-15	IEC 61779-4
IEC 60079-18	IEC 61779-5
IEC 60079-25	IEC 62013-1
IEC 60079-26	IEC 62086-1
IEC 60079-27	

1.14 *National Differences to IEC Standards*

BKI-ExVA National differences to the IEC standards are available in the IECEx Bulletin 2nd Edition

2. ORGANISATION

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

Name	Title	Experience
János MÜLLNER	Head of the Certification Body	Dipl. Specialized Electrical Engineer - 1980, 1986 with ExVÁ since 1998 Quality Manager – ISO 9000 Series/1999 Accreditation of Testing and Calibrating Laboratories – course/1999 Risk Assessment Course/2000

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

Name	Title	Experience
István TIHANYI	Quality Management Representative	Electrical Production Engineer - 1972 with ExVÁ since 1998 IMMC Quality Training 1999

2.3 *Name and Title of Nominated Principal Contact*

Name	Title	Comments
János HANKÓ	Director	

2.4 *Names and Titles of Signatories for Certification*

Name	Title	Comments
János MÜLLNER	Head of the Certification Body	Director can appoint alternate

2.5 *Other Employees in ExCB activity*

Name	Title	Responsibility
Bernadett SZEGVÁRI	Leader of the Administration	Administration
Csaba KECSKÉS	Archiving Inspector	Archives
Béla DENCZ	Leader of Archives	Archives

Personnel from the ExTL part of BKI-ExVA take part as required in the assessment of manufacturers' quality assurance systems. For a list of ExTL personnel see the ExTL Re-assessment report.

2.6 *Competence Management*

The procedure for the management of the competence of the BKI-ExVA personnel is defined in MKK-T-5. Competences are detailed in annex M3. The procedures appear adequate for the purpose. A sample of the personnel record files was examined. The competence record for one of the people who took part in the QA visit to Nivelco was not available at the time of the visit but a copy of the relevant IRCA certificate was seen later. During the initial assessment visit it was observed that training records were incomplete, however follow up reviews have indicated that this situation has subsequently been addressed satisfactorily.

2.7 *Organisational Structure (Including Changes since Last Assessment)*

See Annex C

3. RESOURCES

BKI-ExVA operates in purpose-built premises within a secure compound. The premises have recently been refurbished to a good standard. Adequate provisions are made for the working areas and facilities for the staff. Housekeeping was observed to be to an exemplary standard. Arrangements for the secure storage of documents appeared adequate.

4. COMMITTEES AND APPEAL PROCEDURES

The Governing Board acts as a committee with representation from parties with an interest in the certification policies and practices of BKI-ExVA. The operating rules for the Board are given in Annex M 22 of the ExTL Quality Manual. There are three members, two with industrial and academic connections plus the Director, BKI-ExVA. The Board carries out periodic audits of certain aspects of the work of the ExCB. Reports of some of these audits were seen. The Board has a responsibility to hear appeals according to the procedure set out in MKK-T-7. No appeals had been received to date. At the time of the visit there were no controlled records of the membership of the Board nor were minutes of the Board's meetings available. These items were addressed following the visit. It was noted that the appeal procedure did not include reference to the further right of manufacturers to use the IECEx appeal procedure, shortcoming which was subsequently addressed. The assessment team have reviewed the changes and improvements and are satisfied that IECEx requirements have now been met.

5. CERTIFICATION OPERATIONS

5.1 *National Approval/Certification Methods*

As Hungary is now a member of the European Union, the ATEX system has been adopted for national certification. BKI-ExVA is an ATEX Notified Body, as identified in the government appointment certificate No. 065/2003, a copy of which was obtained.

5.2 *Certification Policy*

Certification policy is set out in the Quality Manual in accordance with ISO/IEC Guide 65. An English language translation of the manual was provided by BKI-ExVA. The IECEx policies and procedures were not detailed in the Quality Manual at the time of the visit but have since been incorporated. The assessment Team are now satisfied that the IECEx Manuals and Operational Documents are now satisfactorily included within the BKI Quality management System.

5.3 *Staff Work Instructions*

The procedures to be carried out by the ExCB personnel are outlined in MKK-T-4 and detailed in a series of related annexes. It was observed that a key document referred to in Annex M 26, the Certification Sheet, was not subject to document control, a deficiency which was remedied subsequent to the visit. As noted in 5.2, the detailed IECEx procedures such as those specified in IECEx 02 and OD 009 were not incorporated in the ExCB procedures at the time of the visit but have been added subsequently..

5.4 *Application for Certification*

A guide to the BKI-ExVA certification and testing service and an application form are available from their website www.bki.hu. Neither the guide nor the application form were identified as controlled documents, nor did they mention the IECEx scheme. This situation was addressed following the visit with the assessment team reviewing the controlled document register. The team is satisfied that IECEx requirements are now met.

5.5 *Sub-contractors*

The requirements for sub-contracting are given in MKK-T-4, section 4.4. It was stated that no work is currently sub-contracted. (See ExTL re-assessment report). It was noted that the reference in 4.4.1 to acceptance of manufacturers' test results needed to take account of the emerging IECEx policy on the issue. Reference to Ex TAG/53/CD has been added.

6. STATISTICS

BKI-ExVA has declared that it has issued the following national certificates and IECEx Certificates or ExTRs during the past 2 years:

Type of protection	Symbol	National	IECEx
Flameproof	d	198	4
Intrinsic safety	i	146	0
Increased safety	e	132	3
Special	s	4	0
Powder filled	q	12	0
Encapsulated	m	13	0
Non-incendive	n	28	0
Pressurised	p	17	0
Gas Detectors	-	7	0
Apparatus for Dusts	D	0	0

7. NATIONAL ACCREDITATION

The Hungarian Accreditation Board (NAT) accredits both the certification body and testing laboratory activities of BKI-ExVA. For the certification body, certificate number NAT-6-0027/2005, valid until 19 December 2008 issued (see Annex A).

A copy of the summary report of the accreditation body's assessment carried out on 23 November 2004 was obtained. It is understood that no non-compliances were observed. A later assessment report for November 2005 was also provided.

8. LIABILITY INSURANCE

BKI-ExVA carries insurance to cover against negligence. The certificate issued by SIGNAL Biztosító Rt. 1123 Budapest, Alkotás u. 50, No.:000503016586 was seen. The certificate was dated 1999.07.16 and was said to be for an indefinite period. The cover was Hft5M (~CHF 35,000).

9. QUALITY MANUAL

BKI-ExVA has created separate quality manuals for the certification body and testing laboratory operations and for the certification body there are two manuals, one for EN 45011 and one for ISO/IEC Guide 65. While this makes for duplication in common areas such as document control, competence management and internal audit, the incorporation of the requirements of the standards within BKI-ExVA can be clearly identified. The manual used for the re-assessment was headed "General requirements for bodies operating product certification systems (ISO/IEC Guide 65 : 1996), 3rd Edition, 3rd Variation" and was an English translation by BKI-ExVA of the manual written in the Hungarian language. As noted in 5.2 and 5.3, the Quality Manual did not include details of the IECEx procedures at the time of the visit, a shortcoming subsequently addressed. At the time of the visit there were no records available of the annual planned revision of the quality system called for by MKK-T-4. Evidence of changes to the system was seen and BKI-ExVA subsequently looked at the appropriate way to address this discrepancy. A copy of the 2005 report has been sighted by the IECEx assessment team and proven to satisfy IECEx requirements.

10. INTERNAL AUDIT AND PERIODIC REVIEW

The internal audit and periodic review are specified in MKK-T-4 at paragraph 4.7.1. The current audit plan at Annex M11 was seen. Examples of audit reports and periodic review reports were examined. It is noted that the internal audit plan also includes surveillance audits of manufacturers' quality assurance systems. The report of the Quality Management Representative required by 4.7.2 was not available and the outcome of the periodic review by the management of BKI-ExVA did not mention issues such as the outcome of the previous year's internal audit programme nor the findings of external assessments, e.g. by the accreditation body. At a follow-up visit, records of reviews were examined and found to meet the objectives of both ISO/IEC Guide 65 and the IECEx Scheme requirements.

11. COMPLAINTS

The procedure for handling complaints (and appeals) is given in MKK-T-7. Records of the handling of complaints from manufacturers were seen. The procedure covered only two circumstances, an appeal from a manufacturer to the Governing Board and a complaint from a user to a manufacturer. The records that were seen were complaints from manufacturers to BKI-ExVA which were handled internally within BKI-ExVA. While the process being used seemed adequate for the purpose, it was not as defined in the procedure. The procedure was subsequently changed to reflect the practice.

12. WITHDRAWAL AND CANCELLATION OF CERTIFICATES

The procedure for withdrawal and cancellation of certificates is given in MKK-T-14 and supporting annexes M13 and M16. No withdrawn or cancelled certificates were identified.

13. REVIEW OF ISSUED CERTIFICATES AND EXTRS

The file for one of the seven IECEx certificates of conformity, which has been issued, was examined. Other files were examined as part of the ExTL re-assessment (see ExTL re-assessment report). The certificate was numbered IECEx BKI 04.0001. The certificate quoted an ExTR number HU/BKI/04/012-03 but the incorrect ExTR reference was quoted. Investigation, subsequent to the visit revealed that the correct ExTR was located.

It was also observed that there was no QAR in the file. Reference to the QA records showed that a QA assessment had been carried out on the manufacturer NIVELCO Ipari Elektronika Rt for another ATEX product. The report form was not in accordance with that contained as an annex to ExMC/161/CD. It was also noted that there were no QARs in the files for certificates IECEx BKI 04.002 and 04.003. These deficiencies were subsequently remedied with full details now available.

14. FINDINGS FROM THE RE-ASSESSMENT

As observed in the earlier sections of this report, a number of issues were raised and were subsequently dealt with by BKI-ExVA. While there is no reason to doubt the technical capabilities of BKI-ExVA and the technical soundness of the products covered by the BKI-ExVA IECEx certificates of conformity, there were two general aspects revealed by the re-assessment worthy of note.

Firstly there appears to be a tendency to adopt a “common-sense” approach and not to follow the written procedures when it does not appear necessary. While this approach might be acceptable in a small organisation working within its own sphere, it does not provide confidence to other organisations working within the wider sphere of IECEx. It was not immediately apparent that the accreditation body had picked up these practices.

Secondly, the IECEx policies and procedures had not been incorporated in the BKI-ExVA quality system. It is not sufficient simply to include the reference numbers (undated) of some of the IECEx documents in the list of standards. It needs to be clear that the organisation has adopted and is working to the scheme’s requirements.

It has to be stated that there was difficulty in gaining a detailed understanding of the working documents written in the Hungarian language, which may have led to the actual situation not being properly understood.

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

- Details of issues raised and how these have been resolved.
- Technical guidance documents for Ex i, Ex d and Dust.
- Photographs of the facility.

We would like to record our thanks to the Director and staff of BKI-ExVA for their co-operation, openness, hospitality, help and patience before, during and after the re-assessment visits.



15. RECOMMENDATIONS

It is recommended that:

1. BKI-ExVA should continue to be accepted as an ExCB now that the deficiencies noted in the findings have been resolved.
2. The scope of acceptance should be extended to cover the Dust standards as listed at 1.7.

Jim Munro
Lead Assessor

Ian Cleare
Assessor

LIST OF ANNEXES

Annex A: NAT Accreditation Certificate

Annex B: NAT Accreditation Schedule

Annex C: Organisation Chart



AKKREDITÁLÁSI OKIRAT

ACCREDITATION CERTIFICATE

A NEMZETI AKKREDITÁLÓ TESTÜLET

az 1995. évi XXIX. törvény felhatalmazása alapján elismeri, hogy az
Authorized by the law XXIX of 1995 the Hungarian Accreditation Board recognizes that

ExVÁ Robbanásbiztos Berendezések Vizsgáló Állomása Kft.
Tanúsító Szervezet

1037 Budapest, Mikoviny Sámuel u. 2-4.

megfelel az MSZ EN 45011:2000 szabvány követelményeinek és az
complies with the criteria of MSZ EN 45011:2000 standard as

TERMÉKTANÚSÍTÁS

PRODUCT CERTIFICATION

kategóriába az alábbi számon bejegyzi
and has been assigned registration number

NAT-6-0027/2005

Az akkreditálás területét az akkreditálási határozat tartalmazza.
The scope of accreditation is specified in the accreditation decision.

Az akkreditálási okirat érvényes
The accreditation certificate is valid until

2008. december 19.

Az akkreditálási okirat kiadva
The accreditation certificate is issued

Budapest, 2005. december 20.



a Nemzeti Akkreditáló Testület ügyvezető igazgatója
Director of the Hungarian Accreditation Board



National Accreditation Board



AI- 9932/2005

File No.: NAT-6-0027/2005

Executive: Proksa Ferenc

Subject: Awarding of the assessed status

RESOLUTION

As a result of the assessment procedure initiated by the application of ExVÁ Testing Station for Explosion Proof Equipment Co. Ltd. (1037 Budapest, Mikoviny S. u. 2-4.) the National Accreditation Board is **issuing** present **Assessment Document** for the

Certification Body of
ExVÁ Testing Station for Explosion Proof Equipment Company Limited
(1037 Budapest, Mikoviny Sámuel u. 2-4)

reckoned from the date of the entering into force of present resolution, under the registration number **NAT-6-0027/2005**, with a validity up to 19th December 2008, confirming conformity to the MSZ EN 45011:1999 Standard for the scope:

product certification of equipment and protective systems intended for use in potentially explosive atmosphere (mixture of flammable substances in the form of gases, vapours, mists or dusts with air, under atmospheric conditions, in which, after ignition, the combustion spreads to the entire unburned mixture).

The assessed scope determined above covers those listed in the Annex of the Resolution.

Simultaneously, by virtue of a) (2) § 7 of Act XXIX/1995, the National Accreditation Board registers the body in the authentic record up to 13th September 2008 provided that its assessed status exists.

By virtue of (2) § 19 and § 24 of Act XXIX/1995 modified by Act LV/2001 the appeal against present resolution can be lodged within 15 days reckoned from receipt, addressed to the Committee of Appeal of the National Accreditation Board, presented to the managing director of the National Accreditation Board.

JUSTIFICATION

ExVÁ Testing Station for Explosion Proof Equipment Co. Ltd. (1037 Budapest, Mikoviny S. u. 2-4) applied on 21st July 2005 for the performance of the assessment procedure concerning its Certification Body, which was completed on 26th July 2005. On the basis of its power conferred upon him by virtue of b) (1) § 6 of Act XXIX/1995 modified by Act LV/2001, as well as the “Procedure of the assessment of certification bodies” NAR-01T, the Mining-Metallurgic-Mechanical Technical Accreditation Committee of the National Accreditation Board performed the assessment procedure. In the course of the procedure it was established that the applicant complied with the requirements of standard MSZ EN 45011:1999. The Mining-Metallurgic-Mechanical Technical Assessment Committee made his decision about the award of the assessed status during his meeting of 20th December 2005.

On the day following the one on which the assessed status expires, the body will be cancelled from the authentic record kept on the basis of a) (2) § 7 of Act XXIX/1995.

Budapest, 30th December 2005



Parties informed:

1. Applicant
2. Journal “Hungarian Quality” for publication
3. NAT (National Accreditation Board) archives
4. NAT website (www.nat.hu)

Enclosures: 4 pages



ANNEX

to the Assessment document No. NAT-6-0027/2005

Technical scope of the Certification Body of ExVÁ Testing Station for Explosion Proof Equipment Co. Ltd. (1037 Budapest, Mikoviny S. u. 2-4) assessed for product certification on the basis of MSZ EN 45011:1999

product certification of equipment and protective systems intended for use in potentially explosive atmosphere (mixture of flammable substances in the form of gases, vapours, mists or dusts with air, under atmospheric conditions, in which, after ignition, the combustion spreads to the entire unburned mixture).

- graded as follows:

<i>Certified product/material</i>	<i>Identification of the test requirements necessary for certification</i>
Explosion-proof electrical apparatus resp. equipment, protective systems intended for use in potentially explosive atmospheres	MSZ EN 50014:2001 HSZ ExVÁ-2G-014:2002 (= MSZ EN 50014:1995) HSZ ExVÁ-IG-014:1999 (= MSZ EN 50014:1992) HSZ ExVÁ-a-IEC (=IEC 79-0) HSZ ExVÁ-a-MSZ:1999 (=MSZ 4814-1:1972) HSZ ExVÁ-a-KGST:1999 (=MSZ-05-43.4814-1:1986) HSZ ExVÁ-a-ATEX:1999 (=EN 50014:1997) MSZ EN 50015:2000 HSZ ExVÁ-2G-015:2002 (= MSZ EN 50015:1997) HSZ ExVÁ-IG-015:1999 (= MSZ EN 50015:1992) HSZ ExVÁ-o-IEC (=IEC 79-6) HSZ ExVÁ-o-MSZ:1999 (=MSZ 4814-5:1974) HSZ ExVÁ-o-KGST:1999 (=MSZ-05-43.4814-5:1986) HSZ ExVÁ-o-ATEX:1999 (=EN 50015:1998) MSZ EN 50016:1999 HSZ ExVÁ-IG-016:2002 (= MSZ EN 50016:1993) HSZ ExVÁ-p-IEC (=IEC 79-2) HSZ ExVÁ-p-MSZ:1999 (=MSZ 4814-4:1974, MSZ 4814-8:1974) HSZ ExVÁ-p-KGST:1999 (=MSZ-05-43.4814-4:1986) HSZ ExVÁ-p-ATEX:1999 (= EN 50016:1995)

<i>Certified product/material</i>	<i>Identification of the test requirements necessary for certification</i>
Explosion-proof electrical apparatus resp. equipment, protective systems intended for use in potentially explosive atmospheres	MSZEN 50017:2000 HSZ ExVÁ-2G-017:2002 (= MSZ EN 50017:1997) HSZ ExVÁ-IG-017:1999 (=MSZ EN 50017:1992) HSZ ExVÁ-q-IEC (=IEC 79-5) HSZ ExVÁ-q-MSZ:1999 (=MSZ 4814-9:1975) HSZ ExVÁ-q-KGST:1999 (=MSZ-05-43.4814-9:1986) HSZ ExVÁ-q-ATEX:1999 (=EN 50017:1998) MSZEN 50018:2001 HSZ ExVÁ-2G-018:2002 (= MSZ EN 50018:1998) HSZ ExVÁ-IG-018:1999(=MSZEN50018:1992) HSZ ExVÁ-d-IEC (=IEC 79-1) HSZ ExVÁ-d-MSZ:1999 (=MSZ 4814-2:1973) HSZ ExVÁ-d-KGST:1999 (=MSZ-05-43.4814-2:1986) HSZ ExVÁ-d-ATEX:2001 (= EN 50018:2000) MSZEN 50019:2000 HSZ ExVÁ-2G-019:2002 (= MSZ EN 50019:1997) HSZ ExVÁ-IG-019:1999 (=MSZ EN 50019:1992) HSZ ExVÁ-e-IEC (=IEC 79-7) HSZ ExVÁ-e-MSZ:1999 (=MSZ 4814-6:1966, MSZ 4814-6:1966K (1972)) HSZ ExVÁ-e-KGST:1999 (=MSZ-05-43.4814-6:1986) HSZ ExVÁ-e-ATEX:2001 (= EN 50019:2000) MSZEN 50020:1997 HSZ ExVÁ-IG-020:1999 (=MSZ EN 50020:1992) HSZ ExVÁ-i-IEC (=IEC 79-11) HSZ ExVÁ-i-MSZ:1999 (=MSZ 4814-7:1977) HSZ ExVÁ-i-KGST:1999 (=MSZ-05-43.4814-7:1986) HSZ ExVÁ-i-ATEX:1999 (= EN 50020:1994) MSZEN 50028:1992 HSZ ExVÁ-m-79 (=IEC 79-18) MSZEN 50039:1992 MSZ EN 50050:2001 HSZ ExVÁ-IG-050:2002 (= MSZ EN 50050:1993) MSZEN 50033:1993 MSZ-05-43.0050-1-.1989 MSZ-05-43.0050-2:1989 MSZEN 1755:2001 MSZEN 1834-1:2000 MSZEN 1834-2:2000 MSZEN 1834-3:2000 MSZEN 50281-1-1:2003 MSZEN 50281-1-2:2005 MSZ EN 50284:2000

<i>Certified product/material</i>	<i>Identification of the test requirements necessary for certification</i>
Explosion-proof electrical apparatus resp. equipment, protective systems intended for use in potentially explosive atmospheres	MSZEN 50303:2000 MSZEN 62013-1 MS7 FN 62013-2 HSZ ExVÁ-n-ATEX:2002 (= EN 500021:1999) HSZ ExVÁ-n-IEC (= IEC 79-15) HSZ ExVÁ-Ja-ATEX:2002 (= EN 12874:2001) HSZ ExVÁ-cb-ATEX:2002 (= EN 12882:2001) HSZ ExVÁ-mt-ATEX:2002 (= EN 12957:2001) HSZ ExVÁ-pft-ATEX:2002 (= EN 13012:2001)
Electrical apparatus for the detection and measurement of combustible gases	MSZ EN 50054:2000 HSZ ExVÁ-IG-054:2002 (= MSZ EN 50054:1994) HSZ ExVÁ-54-ATEX:1999 (=EN 50054:1998) MSZ EN 50055:2000 HSZ ExVÁ-IG-055:2002 (= MSZ EN 50055:1994) HSZ ExVÁ-55-ATEX:1999 (=EN 50055:1998) MSZ EN 50056:2000 HSZ ExVÁ-IG-056:2002 (= MSZ EN 50056:1994) HSZ ExVÁ-56-ATEX:1999 (=EN 50056:1998) MSZ EN 50057:2000 HSZ ExVÁ-IG-057:2002 (= MSZ EN 50057:1994) HSZ ExVÁ-57-ATEX : 1999 (=EN 50057:1998) MSZEN 50058:2000 HSZ ExVÁ-IG-058 : 2002 (= MSZ EN 50058:1994) HSZ ExVÁ-58-ATEX:1999 (=EN 50058:1998) MSZEN 50241-1:2000 MSZEN 50241-2:2000 MSZEN 61779-1:2000 MSZEN 61779-2:2000 MSZEN 61779-3:2000 MSZEN 61779-4:2000 MSZEN 61779-5:2000
Electrical apparatus for the detection and measurement of oxygen	MSZEN 50104:2002 HSZ ExVÁ-104-ATEX: 1999 (=EN 50104:1998)
Electrical apparatus in explosive gaseous atmosphere	MSZEN 60079-10:1998 HSZ ExVÁ-1600-8:1999 (=MSZ 1600-8:1977) MSZEN 60079-14:1999 HSZ ExVÁ-1600-8:1999 (=MSZ 1600-8:1977) MSZEN 60079-17:1999 MSZEN 60079-19:1999 MSZ EN 1127-1:2000

<i>Certified product/material</i>	<i>Identification of the test requirements necessary for certification</i>
Electrostatic spraying devices using combustible materials; selection, installation, operation provisions, Parts 1,2,3	MSZEN 50053-1:1994 MSZEN 50053-2:1994 MSZEN 50053-3:1994
Electrical apparatus for use in the presence of combustible dust, Part 1-1. Electrical apparatus protected by enclosure. Construction and tests	MSZEN 50281-1-1:2003
Electrical apparatus for use in the presence of combustible dust. Part 1-2: Electrical apparatus protected by enclosure. Selection, installation and maintenance	MSZEN 50281-1-2:2005
Electrical apparatus for use in the presence of combustible dust. Part 3: Classification of areas where combustible dust is or can be present	EN 50281-3:2003
Electrical apparatus for use in the presence of combustible dust. Part 2: Test methods. Section 2: Method for the determination of the specific electrical resistance of dust layers (IEC 1241-2-2:1993+1994. corrigendum)	MSZEN 61241-2-2:1999



- end -

ANNEX C

