



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

**Title: Re-assessment Report for continued acceptance of Physikalisch-
Technische Bundesanstalt (PTB) as Ex Certification Body.**

To: Members of the IECEx Management Committee, ExMC

Introduction

This document contains the IECEx Re-assessment Report for Physikalisch-Technische Bundesanstalt (PTB) of Germany as an Accepted ExCB in accordance with the 5-year re-assessment plan for the surveillance and monitoring of bodies under the IECEx Scheme.

This Report is issued for endorsement at the 2005 ExMC Buxton Meeting.

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IECEx Secretariat

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IECEx RE-ASSESSMENT REPORT FORM

For ExCB

(Continued Acceptance as Ex Certification Body)

1. OBJECT AND FIELD OF APPLICATION

1.1 *Country*

Germany

1.2 *ExCB under Re-Assessment*

Physikalisch-Technische Bundesanstalt (PTB), 38116 Braunschweig

1.3 *Members of the Assessment Team*

Jim Munro, Lead Assessor

Heinz Berger, Expert Assessor

1.4 *Place and Date of Assessment*

PTB, Bundesallee 100, 38116 Braunschweig, Germany

September 2–3, 2004

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 Enclosures "d"	IEC 60079-1
Pressurised Enclosures "p"	IEC 60079-2
Sand-filled Apparatus "q"	IEC 60079-5
Oil-immersed Apparatus "o"	IEC 60079-6
Increased Safety "e"	IEC 60079-7
Intrinsic Safety "i"	IEC 60079-11
Electrical Apparatus with Type of Protection "n"	IEC 60079-15
Encapsulation "m"	IEC 60079-18
Apparatus for combustible dusts	IEC 61241-1-1

1.7 *Any changes in Scope*

Intrinsically Safe Systems	IEC 60079-25
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Group II Zone "0" Electrical Apparatus	IEC 60079-26
Field bus Intrinsically Safety concept (FISCO)	IEC 60079-27
Protection by Enclosures "tD"	IEC 61241-1
Protection Dust Overpressure "pD"	IEC 61241-4
Encapsulation "mD"	IEC 61241-18
Combustible dust - General requirements	IEC 61241-0
Resistance Trace heating (General requirements)	IEC 62086-1

1.8 ***ExCB Persons Interviewed***

Name	Position
Dr. Hans Wehinger	Head of ExCB

1.9 ***Any changes in Legal Status of the ExCB***

No change: Governmental Body of the Federal Republic of Germany

1.10 ***Associated Testing Laboratories***

Names of Laboratories

PTB Division 3 with the following departments involved in IECEx activities:

3.4, 3.5, 3.6, 3.7 (see organizational structure in Annex 1)

There was no subcontracting according to surveillance assessment report of DAP dated March 23, 2004 (DAP: German Accreditation System). However, it was noted in this assessment that CTI testing is not done by PTB, with results generally being accepted from VDE.

1.11 ***National Marks and Certificates***

No National Marks and Certificates.

1.12 ***Financial Support***

PTB has the financial stability and resources required for the operation of the IECEx CB.

1.13 ***Standards Accepted***

Product Category	Standard
General Requirements	IEC 60079-0
Flameproof Enclosures "d"	IEC 60079-1
Pressurised Enclosures "p"	IEC 60079-2
Sand-filled Apparatus "q"	IEC 60079-5
Oil-immersed Apparatus "o"	IEC 60079-6
Increased Safety "e"	IEC 60079-7
Intrinsic Safety "i"	IEC 60079-11
Electrical Apparatus with Type of Protection "n"	IEC 60079-15
Encapsulation "m"	IEC 60079-18
Apparatus for combustible dusts	IEC 61241-1-1
Intrinsically Safe Systems	IEC 60079-25

Group II Zone "0" Electrical Apparatus	IEC 60079-26
Field bus Intrinsically Safety concept (FISCO)	IEC 60079-27
Resistance Trace heating (General requirements)	IEC 62086-1
Combustible dust - General requirements	IEC 61241-0
Combustible dust - Protection by Enclosures "tD"	IEC 61241-1
Combustible dust – Type of protection "pD"	IEC 61241-4
Combustible dust – Type of protection "mD"	IEC 61241-18

Note: IEC 60079-27 is a Technical Specification, not a Standard. It is recommended that a decision be taken by the IECEx ExMC on the appropriateness of including a Technical Specification.

1.14 *National Differences to IEC Standards*

No German National Differences apply.

2. ORGANISATION

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

Name	Title	Experience
Hans Wehinger	Dr.	23 years
Uwe Klausmeyer	Dr.	20 years
Heyno Bothe	Dr.	23 years
Ulrich Johannsmeyer	Dr.	30 years

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

Name	Title	Experience
Hans-Günter Gillar	Dr.	5

2.3 *Name and Title of Nominated Principal Contact*

Name	Title	Experience
Uwe Klausmeyer	Dr.	20

2.4 *Names and Titles of Signatories for Certification*

Name	Title	Experience
Hans Wehinger	Dr.	23 years
Uwe Klausmeyer	Dr.	20 years
Heyno Bothe	Dr.	23 years
Ulrich Johannsmeyer	Dr.	30 years
Martin Thedens	Dr.	10 years
Uwe Völkel	Dipl. Phys.	13 years
Martin Kremer	Dipl. Ing.	17 years
Reinhard Wilkens	Dipl. Ing.	14 years
Michael Beyer	Dr.	13 years



Udo Gerlach
Frank Lienesch

Dr.
Dr.

11 years
11 years

The above mentioned signatories are used in their technical fields of competence.

2.5 Other Employees in ExCB activity

Name	Title	Responsibility
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None

2.6 Organisational Structure (Including Changes since Last Assessment)

See Annex 1.

3. RESOURCES

A total of 15 people are involved in IECEx certification activities (technical and commercial) and relevant quality management requirements.

4. COMMITTEES

According to PTB Procedure number QM-VA-14.

5. CERTIFICATION OPERATIONS

5.1 National Approval/Certification Methods

According to the German Accreditation Services under number ZLS-ZE-306/01 and DAP-ZE-306/2 (see Annex 2 and Annex 3)

5.2 Certification Policy

According to Quality Manual, section 2.1

5.3 Staff Work Instructions

Staff work instructions were shown during the assessments.

5.4 Application for Certification

According to PTB Procedure number QM-VA-18

6. STATISTICS

IECEx Certificates or ExTRs issued during the past 2 years:

Protection Type:	IECEx:	Other than IECEx (e.g. ATEX) (numbers according to PTB report 2003)
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flameproof	d	2	197
intrinsic safety	i	9	153
increased safety	e	6	510
powder filled	q	none	9
encapsulated	m	2	15
type (zone 2)	n	none	50
pressurised	p	none	20
Apparatus for Dusts		none	100

There are a lot of other activities in Ex not fitting to the table above.

7. NATIONAL ACCREDITATION

PTB is accredited by the German Accreditation Service as ATEX Notified Body (NB) under registration number 0102.

Annex 2: DAP Accreditation Certificate

Annex 3: German Accreditation Certificate for NB

8. LIABILITY INSURANCE

PTB is an organization owned by the Government and is fully covered by its Government. This statement is based on the intermediate audit report of the DAP.

9. QUALITY MANUAL

PTB is maintaining a comprehensive quality manual.

10. INTERNAL AUDIT AND PERIODIC REVIEW

According to PTB Procedure number QM-VA-02. The 2004 Internal Audits were performed between June and September. The records are filed in excellent manner and open issues are checked based on a fixed schedule.

11. COMPLAINTS

According to PTB Procedure number QM-VA-14. The supervising institution is a department in the Federal Ministry of Economy and Labour.

12. APPEALS

See Clause 4 (Committees)

13. WITHDRAWAL AND CANCELLATION OF CERTIFICATES

No withdrawals and cancellations. Procedure according to PTB basic certification contract provisions Clause 6.

14. REVIEW OF ISSUED CERTIFICATES AND EXTRS

A review of issued CoCs along with the supporting documentation, (ExTRs and QARs) was performed by the Lead Assessor. Refer to Item 11 of ExMC/261/R (Re-assessment Report of PTB for ExTL)

15. FINDINGS FROM THE ASSESSMENT

A couple of issues were found during the assessment and reported to PTB. These were both satisfactorily resolved. A record of these issues, including subsequent actions, has been provided to the IECEx Secretariat.

16. RECOMMENDATIONS

Based on the results gained during the Re-Assessment performed during September 2 – 3, 2004, the assessment team recommends continuation of acceptance of PTB as IECEx Certification Body under the scope of standards listed in Clause 1.13 of this report.

LIST OF ANNEXES

Annex 1: Division 3 Organization Chart
Annex 2: DAP Accreditation Certificate
Annex 3: ZLS Accreditation Certificate

Jim Munro
Lead Assessor

Heinz Berger
Expert Assessor

14 January 2005

Abteilung 3 - Chemische Physik und Explosionsschutz

Hemminger

3.1 Metrologie in der Chemie	3.2 Analytische Messtechnik und Druck	3.3 Chemisch- physikalische Stoffeigen- schaften	3.4 Grundlagen des Explosions- schutzes	3.5 Zünddurch- schlags- prozesse	3.6 System- und Eigensicher- heit	3.7 Zündquellen sicherheit
Güttler	Ulbig	Bauer	Bothe	Klausmeyer	Johannsmeyer	Wehinger
Anorganische Analytik Schiel 3.11	Analytische Messtechnik und Feuchte Scholz 3.21	Kalorische Größen Sarge 3.31	Kenngroßen des Explosions- schutzes Brandes 3.41	Druckfeste Kapselung Klausmeyer 3.51	Eigensicherheit Johannsmeyer 3.61	Zertifizierungsstelle für Explosions- schutz Wehinger 3.71
Organische Analytik Henrion 3.12	Gaseigen- schaften Ulbig 3.22	Flüssigkeits- eigenschaften Wolf 3.32	Explosions- dynamik Förster 3.42	Modellierung von Flammen- durchtritten Markus 3.52	Explosions- geschützte Feldbus- und Speisesysteme Gerlach 3.62	Explosionsge- schützte elektrische Antriebssysteme Lienesch 3.72
Elektrochemie Spitzer 3.13	Druck Sabuga 3.23	Festkörper- dichte Bettin 3.33	Berechnungsver- fahren und Daten- banken für den Explosionsschutz Möller 3.43			Physikalische Zündvorgänge Beyer 3.73
		Viskosität um- weltgerechter Schmierstoffe Klingenberg 3.34	Beratung der Ministerien im Explosionsschutz Bothe 3.44			

ANNEX 2

DAP Deutsches Akkreditierungssystem Prüfwesen GmbH

vertreten im

Deutschen AkkreditierungsRat



Akkreditierung

Die DAP Deutsches Akkreditierungssystem Prüfwesen GmbH bestätigt hiermit, dass die

Physikalisch-Technische Bundesanstalt (PTB)

Bundesallee 100
38116 Braunschweig

mit ihrer

**Zertifizierungsstelle für
Explosionsschutz**

die Kompetenz nach DIN EN 45011 besitzt, Konformitätsbewertungen im Bereich

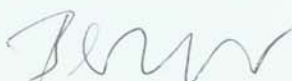
**Produkte, wie Geräte, Schutzsysteme, Sicherheits-, Kontroll- und
Regelvorrichtungen sowie Komponenten zum Einsatz in
explosionsgefährdeten Bereichen, einschließlich Bestimmung
explosionsschutztechnischer Kenngrößen**

wie in der Anlage aufgeführt, auszuführen.

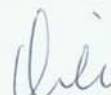
Die Akkreditierung ist gültig vom 21-03-2002 bis 20-03-2007.

DAR-Registriernummer: **DAP-ZE-3062.01**

Berlin, 21-03-2002



Dr.-Ing. K. Berner
Geschäftsführer
DAP Deutsches Akkreditierungssystem
Prüfwesen GmbH



Dr.-Ing. W. G. Dill
Verantwortlicher Begutachter der DAP GmbH
Deutsche Montan Technologie GmbH
Dortmund-Derne

Siehe Hinweise auf der Rückseite.

2. Ausfertigung

Annex 3

AKKREDITIERUNG



Die Zentralstelle der Länder für Sicherheitstechnik (ZLS)

– vertreten im Deutschen Akkreditierungsrat –
bestätigt hiermit, dass die

**Physikalisch-Technische Bundesanstalt (PTB)
Bundesallee 100, 38116 Braunschweig**

die Anforderungen des § 9 Abs. 2 Gerätesicherheitsgesetz (GSG)
und der Norm DIN EN ISO/IEC 17025 erfüllt sowie die Kompetenz besitzt,

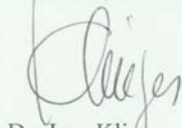
Geräte und Schutzsysteme zur bestimmungsgemäßen

Verwendung in explosionsgefährdeten Bereichen

im Geltungsbereich der EG-Richtlinie 94/9/EG entsprechend den
Bestimmungen des Akkreditierungsbescheides Nr. 5.ZLS/3926-1/19/01
zu prüfen.

Die Akkreditierung ist gültig vom **01.08.2001** bis zum **31.07.2006**.
DAR-Reg.-Nr.: **ZLS-P-361/01**

München, den 23. Januar 2002



Dr.-Ing. Klinger
Ministerialrat

ZLS im Bayerischen Staatsministerium für Gesundheit, Ernährung und Verbraucherschutz, 80792 München