ExMC/ 354/DV
January 2007

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

Ex Management Committee, ExMC

TITLE: IECEx Assessment Report for acceptance of *TÜV SÜD Product Service GmbH, Filderstadt, Germany* as an IECEx Test Laboratory (ExTL)

INTRODUCTION

This document contains the IECEx Assessment Report for the acceptance of *TÜV SÜD Product Service GmbH, Filderstadt* as an IECEx Test Laboratory (ExTL) within the IECEx Scheme. This ExTL is to operate as an additional ExTL to the previously accepted Ex Certification Body TÜV SÜD Product Service GmbH, Munich, please refer to Item 1.9 of this Report.

This report is hereby submitted for voting.

Please consider this assessment report and return the completed voting form (separate - in Word Format) to the Secretariat by 15th March 2007. Your speedy response to the voting process will be very much appreciated.

Chris Agius
IECEx Secretariat

Address: **IECEx Secretariat** **SAI Building** **286 Sussex Street** **Sydney 2000** **Australia**	**Tel: +61 2 8206 6940** **Fax: +61 2 8206 6272** **Email: chris.agius@iecex.com** **Internet: www.iecex.com**

IECEx Assessment Report
TÜV SÜD Product Service GmbH, Filderstadt, Germany

(as an Ex TEST LABORATORY – ExTL)

Type of Assessment:

Initial assessment for Candidate ExTL [X]

1. OBJECT AND FIELD OF APPLICATION

1.1 ***Country:***

Germany

1.2 ***Name of Candidate TL***

TÜV SÜD Product Service GmbH
Department PS-TECS
Gottlieb-Daimler-Str. 7
70794 Filderstadt
Germany

Abbreviation: TSPS Filderstadt

1.3 ***Members of the Assessment Team***

Heinz S. Berger, Team Leader and IECEx Officer
Vijay Kumar Varma, Expert Assessor, Intertek ETL SEMKO Division (GB)
William E. Dunn, Expert Assessor, TestSafe, (AU)

1.4 ***Place and Date of Assessment***

70794 Filderstadt, Gottlieb-Daimler_Str. 7

11th – 12th May, 2006

1.5 ***Assessment References***

Documents:

i) IECEx 02 Second Edition 06 2003
ii) IECEx Operational Document OD/003
iii) IECEx Operational Document OD/009
iv) ISO/IEC 17025:1999
v) IECEx Technical Guidance Documents (TGD's)
vi) ExTAG decision sheets (DS's)
vii) ExTL application documents dated December 23rd 2005

1.6 *Scope of Application*

Number	Title	Clearance
60079-0	Electrical apparatus for explosive gas atmospheres Part 0: General requirements	OK
60079-2	Electrical apparatus for explosive gas atmospheres Part 2: Electrical apparatus, type of protection 'p' (Pressurization)	OK
60079-7	Electrical apparatus for explosive gas atmospheres Part 7: Increased safety 'e' **Limits:** Rotating machines up to 2kW only.	OK with limit
60079-11	Electrical apparatus for explosive gas atmospheres Part 11: Intrinsic safety 'i'	OK
60079-15	Electrical apparatus for explosive gas atmospheres Part 15: Electrical apparatus with type of protection 'n' (Non-Sparking) **Limit:** Rotating machines up to 2kW only	OK with limit
60079-18	Electrical apparatus for explosive gas atmospheres Part 18: Encapsulation 'm'	OK
61241-0	Electrical apparatus for use in the presence of combustible dust Part 0: General requirements	OK
61241-1	Electrical apparatus for use in the presence of combustible dust Part 1: Electrical apparatus protected by enclosures	OK
61241-1-1	Electrical apparatus for use in the presence of combustible dust Part 1: Electrical apparatus protected by enclosures Section 1: Specification for apparatus	OK
61241-4	Electrical apparatus for use in the presence of combustible dust Part 4: Type of protection 'pD'	OK

1.7 *Candidate TL Persons Interviewed*

Werner Leistner
Klaus Gohlke
Andreas Pfeil
Jörg Moldenhauer
Wolfgang Jakobi (TÜV SÜD Product Service GmbH, Mannheim)

1.8 *Legal Entity Of The Candidate TL*

TÜV SÜD Product Service GmbH, Filderstadt

1.9 *Associated ExCB*

TÜV SÜD Product Service GmbH
Mr. Siegfried Mösch
Ridlerstr. 65
80339 Munich
Germany

1.10 *Financial Support*

TSPS Filderstadt is self funded relying on revenues based on testing activities.

1.11 *History*

1989	Foundation of TÜV Bayern	Munich, Tokyo, Hong Kong, Boston, Milano
1989	Participation of TÜV Hanover	Hanover, Barcelona
1990	Participation of TÜV Hessen	Frankfurt
	Acquisition of MIKES PS GmbH	Straubing
	Acquisition of Emaco, Inc.	San Diego
	Foundation of TPS Asia Ltd.	Taipeh
	Foundation of TPS Inc. / USA	
1993	Foundation of TPS Japan Ltd.	Tokyo
	Expansion of TPS Asia Ltd.	Shanghai
	Acquisition of Amador, Inc.	Minneapolis, Boulder
1994	Participation of TÜV Nord	Hamburg, Kolding
1995	Foundation of TPS Korea Ltd.	Seoul
1996	Foundation of TÜV Süddeutschland	Stuttgart, Mannheim
	Acquisition of British NEAG	S´hampton, Glasgow
1997	Renaming of NEAG in TPS Ltd.	
	Acquisition of Olivetti Labs	Turino
	Acquisition of Siemens Rolm	Santa Clara
	Joint Venture in Japan	Kofu
	Opening of Subsidiary	Peking
2000	Acquisition of British BABT	
	Joint Venture with CQC	Wuxi
	Opening of Subsidiary	Pusan

2. ORGANISATION

2.1 Names, Titles and Experience of the Senior Executives

Name	Title / Function	Overall Experience
Joachim Birnthaler	Managing Director (Annex 3)	
Lothar Weihofen	Managing Director (Annex 3)	
Dr. Hermann Buitkamp	Senior Vice President (Annex 3)	
Werner Leistner	Branch Manager (Annex 5)	17 years
Klaus Gohlke	Deputy Branch and Lab Manager (Annex 5)	28 years

2.2 Name, Title and Experience of the Quality Management Representative

Name	Title	Overall Experience
Albrecht Mayer	Quality Management Representative	15 years

2.3 Name and Title of Nominated Principal Contact

Name	Title	Overall Experience
Jörg Moldenhauer	Product Specialist (Annex 5)	8 years

2.4 Employees

Name	Title (Refer Annex 5)	Experience in Ex
Werner Leistner	Branch Manager	9 years

Name	Title (Refer Annex 5)	Experience in Ex
Klaus Gohlke	Deputy Branch and Lab Manager	24 years
Andreas Pfeil	Product Specialist	3 years
Michael Reuschel	Product Specialist	10 years
Roman Rehak	Product Specialist	2 years
Jörg Moldenhauer	Product Specialist	1 year
Wolfgang Jakobi	Product Specialist (TSPS, Mannheim)	24 years
Bernhard Abel	Product Specialist (TSPS, Mannheim)	10 years

2.5 Organizational Structure

See organization charts in Annexes 1 to 5 for the organizational structure of TSPS Filderstadt Laboratory.

The CVs of employees listed in clause 2.4 were checked and found to be acceptable.

3. RESOURCES

A total of eight people will be active concerning testing for IECEx. They work in different location; six persons in TSPS Filderstadt and two persons in TSPS Mannheim. Three persons are active as Technical Certifiers under the umbrella of the ExCB TÜV SÜD Product Service GmbH, located in Munich.

The TSPS Filderstadt Laboratory is using test equipment from different locations:
TSPS Mannheim (IP and Dust),
TÜV SÜD Industrie Service, Filderstadt (CTI and clauses of gas) and
TÜV SÜD Automotive GmbH, Munich (spark tester).

4. TEST METHODS

TSPS Filderstadt has developed procedures covering all the tests required in the standards sought in the scope. All of these procedures were reviewed during the assessment process, including checking against actual testing practice and found to meet IECEx requirements.

5. TEST REPORTS AND RECORDS

5.1 Test Reports Issued

Number of test reports issued under the ATEX directive in the preceding four years for each type of protection:

Product Category	Standard*	2002	2003	2004	2005	∑*
General Requirements	IEC 60079-0	4	3	7	10	**24**
Pressurized Enclosures “p”	IEC 60079-2					**0**
Increased Safety “e”	IEC 60079-7	4			1	**5**
Intrinsic Safety “i”	IEC 60079-11		3	3	3	**9**
Type “n” Protection	IEC 60079-15			4	4	**8**
Type “m” Protection (encapsulation)	IEC 60079-18				2	**2**
Combustible dust - General requirements	IEC 61241-0			2	1	**3**
Apparatus for combustible dust atmospheres	IEC 61241-1-1			2	1	**3**
Combustible dust – Type of protection “pD”	IEC 61241-4					**0**

* Mainly using equivalent EN-standards

5.2 Test Records

The test method describes the handling of test records with view to repetition of measurements and uncertainty of measurements.

6. CALIBRATION

The TSPS Filderstadt Laboratory (the ExTL) is using test equipment at different locations:
TSPS Mannheim (IP and Dust),
TÜV SÜD Industrie Service, Filderstadt (CTI and clauses of gas) and
TÜV SÜD Automotive GmbH, Munich (spark tester).

TSPS Filderstadt Laboratory lists the measuring equipment in a database called CALVIN (accessible via Intranet), showing the relevant data such as the date of the next calibration date. Equipment is marked with a green sticker carrying the date of the next calibration.

TSPS Mannheim is operating under the same calibration regulations as the TSPS Filderstadt Laboratory. The list of equipment is in the CALVIN system and properly controlled.

TSPS Filderstadt Laboratory is using test equipment from TS Industrie Service GmbH in Filderstadt (CTI and oxygen concentration measurement). The user agreement assures access to test equipment and calibration information.

The spark tester is under the control of the IECEx TL TÜV SÜD Automotive GmbH in Munich.

7. DOCUMENTATION

7.1 *Quality Manual*

The Quality system of TSPS is incorporated into the Corporate Management Manual of TÜV SÜD Group. This Manual is a five level concept. It describes how the requirements of TÜV SÜD are implemented at TSPS Filderstadt. Furthermore, local adjustments specify how global procedures may be applied.

In TSPS Filderstadt Laboratory the above mentioned local adjustments are in force.

7.2 *Document Change Control*

The document change control procedure is described in the Quality system of TSPS (TPS_P_05.01 “Control of Quality Documents”).

8. CONFIDENTIALITY

In addition to the clause in the working contract an individual, personally signed confidentiality declaration according to TSPS Quality Management Manual, clause 5, is available.

9. NATIONAL ACCREDITATION

TSPS Filderstadt Laboratory holds an accreditation as a testing laboratory by ZLS (German Accreditation Services) for DIN EN 17025 (equivalent to ISO/IEC 17025) for the ATEX Directive 94/9/EC. See Annex 6 for the accreditation document. The certificate is valid until June 30th 2008. There are further accreditations mentioned but they are not relevant concerning the Ex field.

10. RECOGNITION AND AGREEMENTS

There are presently no recognitions and agreements in the Ex field.

11. INTERNAL AUDIT AND PERIODIC MANAGEMENT REVIEW

The procedure is described in document TPS_P_17.01 “Internal Quality audits”. Audit plans 2005 and 2006 were presented as well as the audit report issued on July 6th 2005. The 2006 internal audit was conducted on November 20th 2006. The periodic management review of TSPS Filderstadt is integrated in the management review of the ExCB.

12. COMPLAINTS MECHANISM

The complaints procedure is described in Procedures TPS_P_19.01 “Complaint Management”.

13. SPECIAL FACTS TO BE NOTED

The TÜV SÜD Group is a very large organization operating world wide in the area of technical product conformances.

During the opening meeting the assessment team realized that some of the tests are performed at TSPS Mannheim. It was decided, to include the Mannheim location in the initial assessment because of the high relevance of the measurements (IP and Dust).

Klaus Lorenz (Munich location), Albrecht Mayer (Munich location), Dieter Fietz (Hanover location) were present during the whole assessment of the Filderstadt laboratory. Furthermore, Dieter Fietz was a member of the delegation to Mannheim.

14. COMMENTS

During the assessment, the audit team made observations leading to action items which included the following areas

- test methods/procedures;
- records/uncertainty of measurements;
- calibration issues;
- verification of ordered goods.

All the action items were resolved by the applicant, satisfying the assessment team towards the recommendation for acceptance. See limitations below.

Standards with limit(s):

Number	Title	Clearance
60079-7	Electrical apparatus for explosive gas atmospheres Part 7: Increased safety 'e' **Limits:** Rotating machines up to 2kW only.	OK with limit
60079-15	Electrical apparatus for explosive gas atmospheres Part 15: Electrical apparatus with type of protection 'n' (Non-Sparking) **Limits:** Rotating machines up to 2kW only	OK with limit

15. RECOMMENDATION

Based on the initial assessment performed between May 11th and 12th, 2006,and the satisfactory completion of follow-up items, the assessment team recommends acceptance of TÜV SÜD Product Service GmbH, Filderstadt, as an IECEx Testing Laboratory for the scope listed in clause 1.6 (clearance column) of this report with limitations for standards 60079-7 and 60079-15.

List of Annexes:

Annex 1: Overall Organization Chart of TÜV SÜD Group
Annex 2: Organization Chart of Region Germany
Annex 3: Organization Chart of TSPS GmbH
Annex 4: Organization Chart of TSPS Filderstadt
Annex 5: Ex Team Organization Chart TSPS Filderstadt
Annex 6: Accreditation Certificate as Testing Laboratory for Ex products

TÜV SÜD

Board of Management
Dr. Peter Hupfer (Chairman) Hermann Mund Dr. Axel Stepken

Business Segments / *Regions*	**INDUSTRY** Stepken (Mund)	**MOBILITY** Hupfer (Mund)	**PEOPLE** Stepken (Mund)	Corporate Business Development Hupfer	*Central Divisions* Finances & Controlling Mund	*Central Divisions* Planning & Corporate Management Hupfer
EUROPE	• TÜV SÜD Industry Service • TÜV SÜD Product Service • TÜV SÜD Chemical Service + subsidiaries	• TÜV SÜD Auto Service • TÜV SÜD Automotive • TÜV SÜD Rail + subsidiaries	• TÜV SÜD Management Service • TÜV SÜD Life Service • TÜV SÜD Akademie + subsidiaries	• New technologies • New industry sectors • New regions	• Controlling • Finances / Accounting • Investments • IT • Real estate	• Human resources • Legal, Accreditation, Quality management, Risk management • Corporate communications • Corporate development • Auditing
AMERICAS Hupfer (Mund)	TÜV America (CRO) + subsidiaries					
ASIA Stepken (Mund)	TÜV Asia (CRO) + subsidiaries					

TÜV SÜD Gruppe - Region EUROPA (Inland)

V-R-AZN, V1-BM
Stand: März 2006

TÜV Bayern Hessen Sachsen Südwest e.V.
GF: Häfner — Sitz: Mannheim

TÜV SÜD AG
Vorstand: Dr. Hupfer (Vorsitzender), Mund, Dr. Stepken — Sitz: München

INDUSTRIE

- **TÜV SÜD Industrie Service GmbH** — GF: Dr. Bayerlein, Dr. Heisel, v.d. Linde — Sitz: München
  - **Elektro-Beratung Bayern GmbH** — GF: Pittrich — Sitz: München
  - **TÜV Föderation GmbH Unternehmensgruppe TÜV Süddeutschl.** — GF: Behm — Sitz: München
    - **TÜV SÜD Cleancert GmbH** — GF: Schacht — Sitz: Köln
    - **TÜV SÜD ImmoWert GmbH** — GF: Dr. Bayerlein — Sitz: München
- **TÜV SÜD Energietechnik GmbH Baden-Württemberg** — GF: Seibold — Sitz: Filderstadt
- **TÜV SÜD Chemie Service GmbH** — GF: Dr. Rindfleisch — Sitz: Leverkusen
- **TÜV SÜD Product Service GmbH** — GF: Birnthaler, Weihofen — Sitz: München

MOBILITÄT

- **TÜV SÜD Auto Service GmbH** — GF: Schneider, Jost — Sitz: Stuttgart
  - **plus service GmbH** — GF: Mentis, Ziehn — Sitz: Stuttgart
  - 90 % **LUEG Consult GmbH** — GF: Walker — Sitz: Bochum
  - 90 % **TÜV Hanse GmbH TÜV SÜD Gruppe** — GF: Balow, Wilters — Sitz: Hamburg
  - 40 % **Fleet Company GmbH** — GF: Freiherr von Ulmenstein, Vogt — Sitz: München
- **TÜV SÜD Automotive GmbH** — GF: Dr. Aubel, Dr. Graf von und zu Westerholt und Gysenberg — Sitz: München
  - **TÜV SÜD Rail GmbH** — GF: Dr. Aubel — Sitz: München
    - 16 % **Rail Test GmbH** — GF: Eliasmöller — Sitz: Wegberg

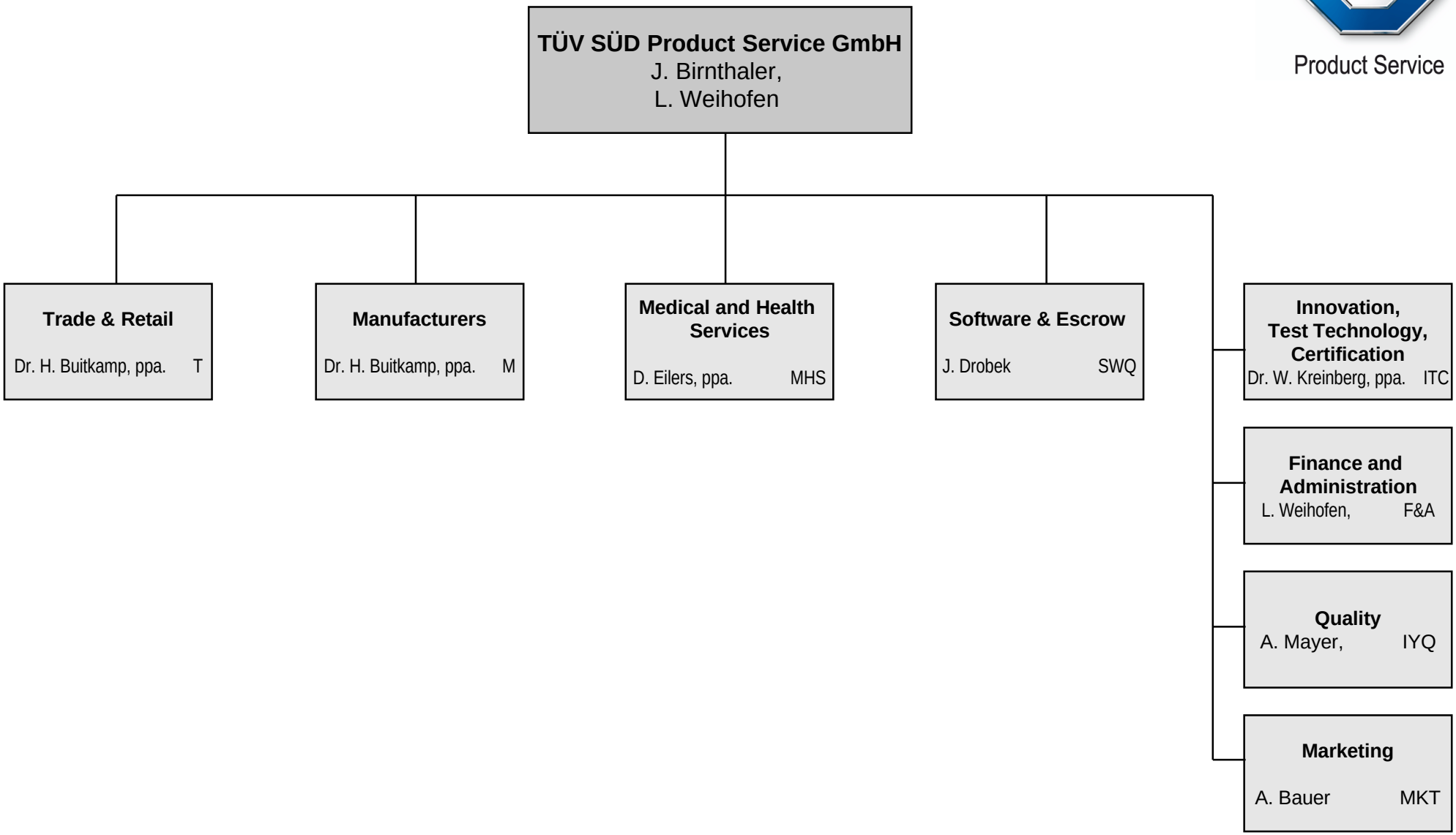
MENSCH

- **TÜV SÜD Management Service GmbH** — GF: Prof. Dr. Schaff — Sitz: München
  - 75 % **LSG-Hygiene Institut GmbH** — GF: Altmann, Hock — Sitz: Neu-Isenburg
    - **LSG-ELAB GmbH** — GF: Altmann, Dr. Roesner — Sitz: Siegen
- **TÜV SÜD Umweltgutachter GmbH** — GF: Dr. Nagel — Sitz: München
- **TÜV SÜD Akademie GmbH** — GF: Probst — Sitz: München
- **TÜV SÜD Life Service GmbH** — GF: Dr. Ziegler — Sitz: München
  - **PIMA Privates Institut für Mobile Arbeitsmedizin GmbH** — GF: Dr. Janssen — Sitz: München
  - **MPU GmbH** — GF: Dr. Janssen — Sitz: Recklinghausen
- **PlusPunkt GmbH** — GF: Merz — Sitz: München

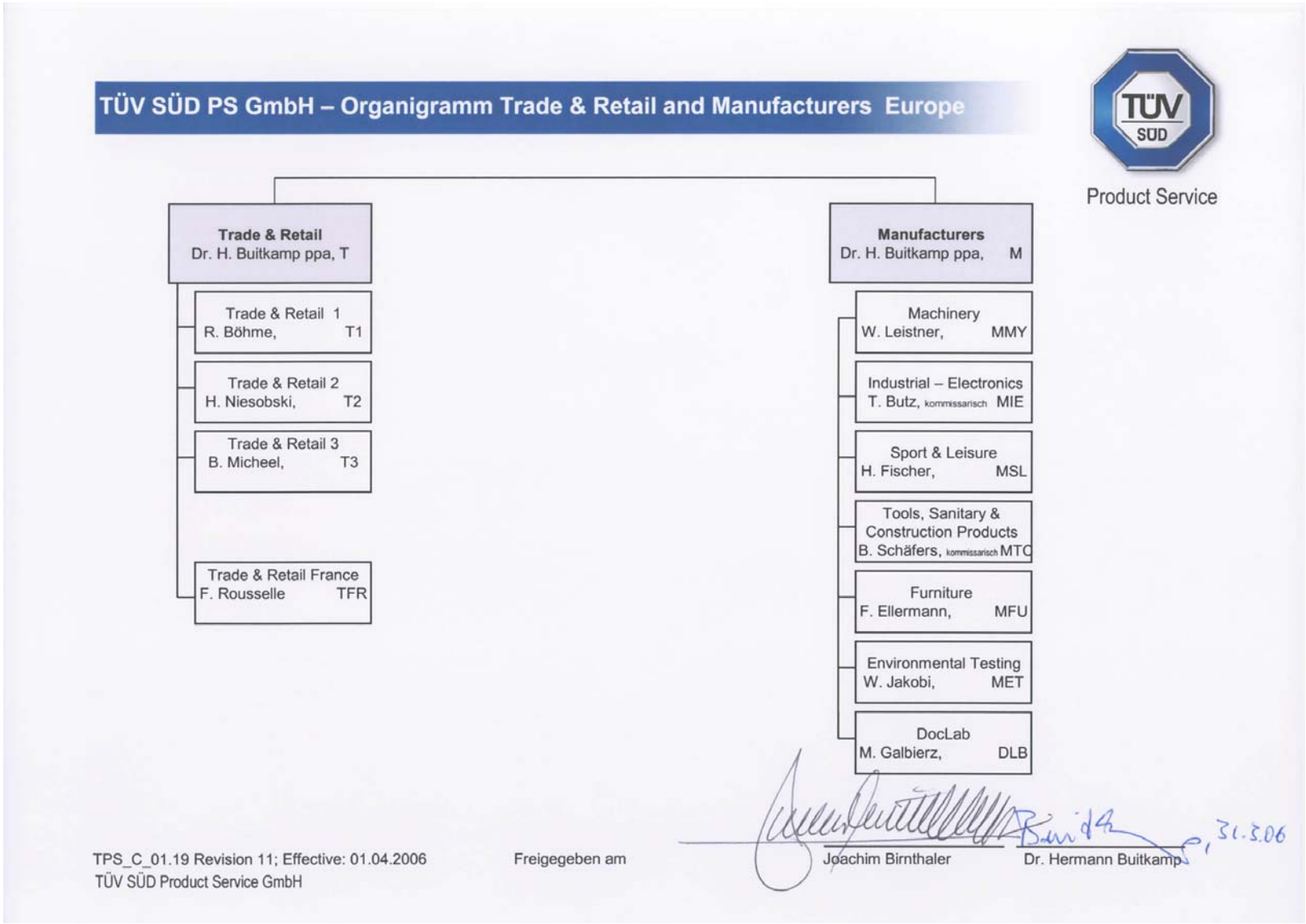
- 55 % **TÜV Technische Überwachung Hessen GmbH** — GF: Börsch, Dr. Gehrke — Sitz: Darmstadt
  - **SIGNUM GmbH** — GF: Blumenauer, Busse — Sitz: Frankfurt
  - **TÜ Technische Überwachung Arnstadt GmbH** — GF: Dr. Gehrke, Börsch — Sitz: Arnstadt
- **TÜV Baden-Württemberg GmbH** — GF: Dr. Heisel — Sitz: Stuttgart
- **TÜV Bayern GmbH** — GF: Lehnerer — Sitz: München
- **TÜV Sachsen GmbH** — GF: Stark — Sitz: Dresden
- **TÜV SÜD Informatik und Consulting Services GmbH** — GF: Göbel — Sitz: München
- **TÜV SÜD Immobilien Service GmbH** — GF: Berger — Sitz: München

TÜV SÜD Product Service GmbH – Organigramm

Product Service



TÜV SÜD Product Service GmbH Trade & Retail, T and Manufacturers, M



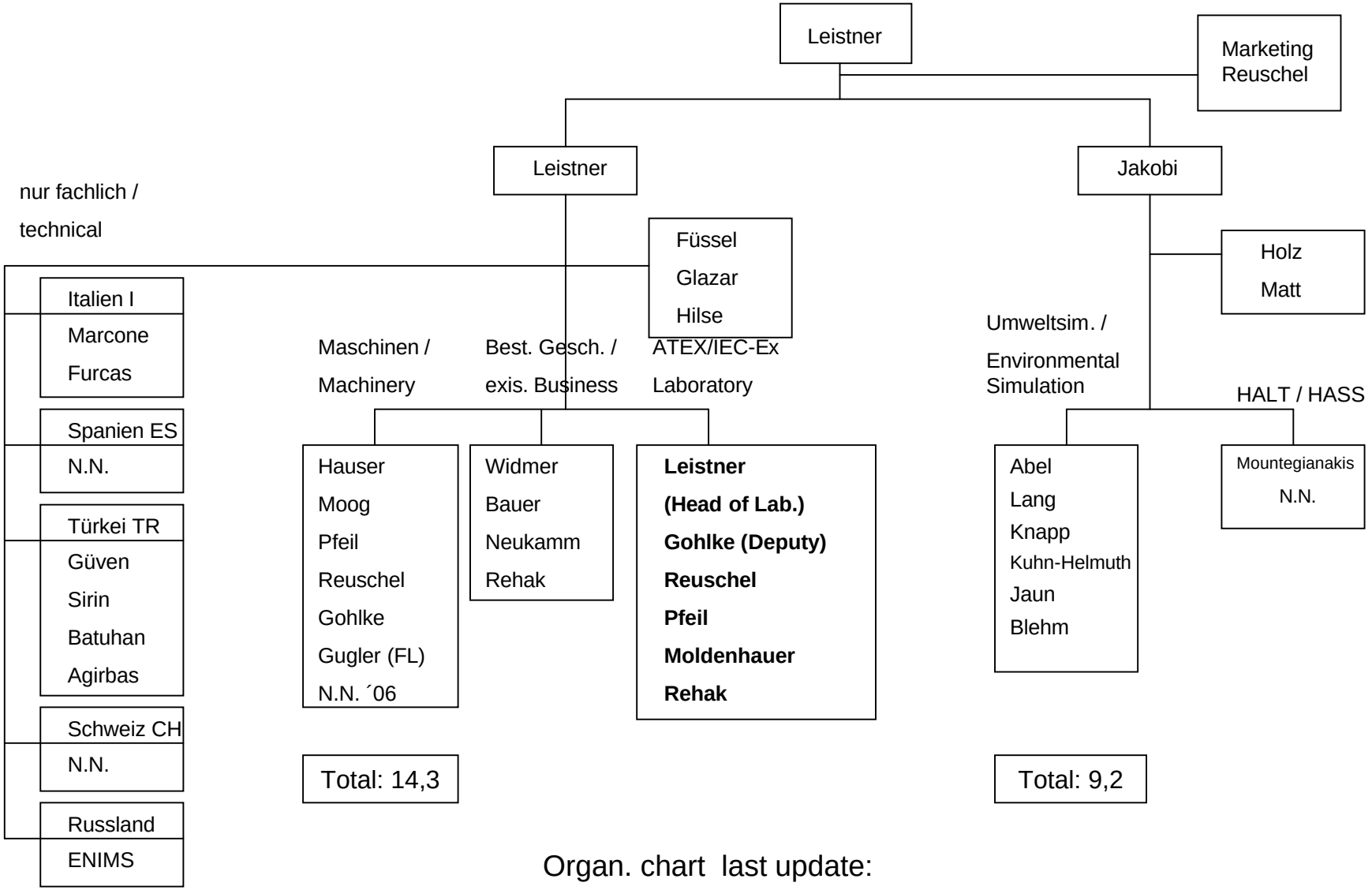
ANNEX 5

Organigramm Branche / Organisation Chart

Maschinen/ATEX/IEC-Ex und Umweltsimulation in EG /

Machinery/ATEX/IEC-Ex and Environmental Simulation in EU

Product Service



Organ. chart last update:
05.05.2006

AKKREDITIERUNG

Die Zentralstelle der Länder für Sicherheitstechnik (ZLS)

bestätigt hiermit, dass das

Prüflaboratorium
der
TÜV SÜD Product Service GmbH
Gottlieb-Daimler-Str. 7, 70794 Filderstadt

die Anforderungen des § 11 Abs. 1 des Geräte- und Produktsicherheitsgesetzes und der Norm DIN EN ISO/IEC 17025 erfüllt und die Kompetenz besitzt,
Geräte für den Einsatz in explosionsgefährdeten Bereichen
im Geltungsbereich des GPSG und der EG-Richtlinie 94/9/EG
entsprechend den Bestimmungen des Akkreditierungsbescheides
Nr. ZLS-G3926.1-2006/15
zu prüfen.

Die Akkreditierung ist gültig bis zum **30.06.2008.**
Reg.-Nr.: **ZLS-P-687b/06**

München, den 26.10.2006

Dipl.-Wirtsch.-Ing. (FH) Huber
Leiter der ZLS