



Exploration & Production

GENERAL SPECIFICATION

ELECTRICAL

GS EP ELE 079

Electrical apparatus for potentially explosive gas atmospheres

06	01/2012	Minor Updates
05	10/2009	Minor Update
04	10/2008	Major Update & introduction of IECEx scheme
03	10/2005	Addition of "EP" root to GS identification
00	03/2001	First issue
Rev.	Date	Notes

Owner: DEV/TEC

Managing entity: DEV/TEC/ELE



Contents

1. Scope	3
2. Reference documents.....	3
3. Selection of electrical apparatus versus hazardous areas.....	11
3.1 Selection of electrical apparatus versus hazardous area according to ATEX directive ..	11
3.2 Selection of electrical apparatus versus hazardous area according to IECEx scheme ..	12
3.3 Equipment selection table	13
4. Cables and wiring	16
5. Installation rules.....	16
5.1 Cable runs	16
6. Documents required by Company	17
6.1 ATEX directive	17
6.2 IECEx scheme	17
6.3 Verification Dossier	18
7. Marking	18
7.1 ATEX Directive.....	18
7.2 IECEx scheme	19
Appendix 1 ATEX Directives n° 94/9/EC and n° 1999/92/EEC - Summary and general considerations	20
Appendix 2 IECEx Scheme	35
Appendix 3 List of notified bodies under directive 94/9/EC.....	48
Appendix 4 List of ExCBs under IECEx 02 - IECEx Equipment certification program	71
Appendix 5 List of ExCBs under IECEx 03 - IECEx Certified Facilities Program	73
Appendix 6 List of harmonised standards under Directive 94/9/EC	74



1. Scope

This specification defines the criteria to be followed for the selection of **electrical equipment** and protective systems in potentially explosive gas atmospheres of the Company facilities located either onshore or offshore.

Two new European Directives commonly called ATEX (**AT**mosphères **EX**plosibles) Directives have been in force since the 01 July 2003. The ATEX Directive **94/9/EC** sometimes called the "Product" Directive affects the Manufacturers (known also as ATEX 95). The ATEX Directive **1999/92/EEC** sometimes called the "User" Directive affects the workers (known also as ATEX 137).

ATEX 95 Directive shall be applicable for all the Company facilities located within the European Union (EU countries) and also outside the EU.

The ATEX Directive **1999/92/EEC** is referred to in this document as far as Annex II, paragraph B is required to establish the correspondence between equipment category and zones.

For facilities located outside the European Union (EU countries), an alternative scheme can be applied the IECEx scheme (IEC Scheme for Certification relating to Equipment for use in Explosive Atmospheres).

Explosives and dust/fibres are excluded from this scope.

2. Reference documents

The reference documents listed below form an integral part of this General Specification. Unless otherwise stipulated, the applicable version of these documents, including relevant appendices and supplements, is the latest revision published at the EFFECTIVE DATE of the CONTRACT.

Where national and/or local regulations exist, their provisions and those of the standards and codes to which they refer shall apply, when their requirements are more stringent than this specification.

If there are no national regulations covering all or part of this specification, the reference documents, as listed here after, shall be strictly applied.

In all cases the Engineer/Contractor shall inform the Company of any deviation to this specification.

The design, selection and installation of electrical apparatus in explosive gas atmospheres shall satisfy all statutory requirements of national/local Authorities of the country in which the electrical apparatus will be located.

The construction and installation of electrical equipment shall comply with the requirements of the relevant parts of the CENELEC harmonised standards and IEC standards. Other recognised standards shall be subject to **Company formal approval**.

In the event of contradiction between the requirements of this General Specification, the Particular Specification (if any) and IEC, CENELEC or national standards the following shall apply in order of precedence:

- Applicable laws, rules and regulations of the country in which the equipment will be installed. In cases where no "local" regulations exist, then the European Directives ATEX n° 94/9/EC or the IECEx scheme (outside European Union) shall be applied
- Company Particular Specification (which amends the General Specification for the Particular Project)
- Company General Specification (the latter)
- Applicable CENELEC harmonised Standards
- Applicable International Electrotechnical Commission (IEC) standards.

Standards

For the IEC standards, the latest issue of the following standards shall be applied.

For the CENELEC standards, the issue to be considered is the one in line with the Official Journal of the European Union, Publications of titles and references of harmonised standards under the directive (for instance, this revision of the **GS EP ELE 079**, is based on the Official Journal of the European Union Publication, reference 2008/C 212/08, dated 20.8.2008). If the standard is not mentioned in this list, the latest issue has to be considered.

Reference	Title
IEC Guide 65	General Requirements for Bodies Operating Product Certification Systems
IEC 17024	Conformity assessment General requirements for bodies operating certification of persons
IEC 17025	General requirements for the competence of testing and calibration laboratories
IEC 60079-0	Explosive atmospheres - Part 0 : equipment - General requirements
IEC 60079-1	Electrical apparatus for explosive gas atmospheres - Part 1: Flameproof enclosures "d"
IEC 60079-1/AC1	Corrigendum 1 to publication IEC 60079-1:2007
IEC 60079-2	Explosive atmospheres - Part 2 : equipment protection by pressurized enclosure "p"
IEC 60079-5	Explosive atmospheres - Part 5 : equipment protection by powder filling "q"
IEC 60079-6	Explosive atmospheres - Part 6 : equipment protection by oil immersion "o"
IEC 60079-7	Explosive atmospheres - Part 7 : equipment protection by increased safety "e"

Reference	Title
IEC 60079-10-1	Explosive atmospheres - Part 10-1 : classification of areas - Explosive gas atmospheres
IEC 60079-11	Explosive atmospheres - Part 11 : equipment protection by intrinsic safety "i"
IEC 60079-13	Explosive atmospheres - Part 13 : equipment - protected by pressurized rooms "p"
IEC 60079-14	Explosive atmospheres - Part 14 : electrical installations design, selection and erection
IEC 60079-15	Explosive atmospheres - Part 15 : equipment protection by type of protection "n"
IEC 60079-16	Electrical apparatus for explosive gas atmospheres - Part 16: Artificial ventilation for the protection of analyser(s) houses
IEC 60079-17	Explosive atmospheres - Part 17 : electrical installations inspection and maintenance
IEC 60079-18	Explosive atmospheres - Part 18 : equipment protection by encapsulation "m"
IEC 60079-18/AC1	Corrigendum 1 to publication IEC 60079-18:2009
IEC 60079-19	Explosive atmospheres - Part 19 : equipment repair, overhaul and reclamation
IEC 60079-20-1	Explosive Atmospheres - Part 20-1 : material characteristics for gas and vapour classification - Test methods and data
IEC 60079-25	Explosive atmospheres - Part 25 : intrinsically safe electrical systems
IEC 60079-26	Explosive atmospheres - Part 26 : equipment with equipment protection level (EPL) Ga
IEC 60079-26/AC1	Corrigendum 1 to publication IEC 60079-26:2006
IEC 60079-27	Explosive atmospheres - Part 27 : fieldbus intrinsically safe concept (FISCO)
IEC 60079-28	Explosive atmospheres - Part 28 : protection of equipment and transmission systems using optical radiation
IEC 60079-28/AC1	Corrigendum 1 to publication IEC 60079-28:2006
IEC 60079-30-1	Explosive atmospheres - Part 30-1: Electrical resistance trace heating - General and testing requirements
IEC 60079-30-2	Explosive atmospheres - Part 30-2: Electrical resistance trace heating - Application guide for design, installation and maintenance

Reference	Title
IEC 61892-7	Mobile and fixed offshore units - Electrical Installations Part 7 - Hazardous areas
IEC 62262	Degrees of protection provided by enclosures for electrical equipment against external mechanical impacts (IK code)
CENELEC	
EN 1127-1	Explosive Atmospheres: Explosion prevention and protection - Part 1: Basic concepts and methodology (2 - 2009-05-01)
EN 13237	Potentially explosive atmospheres - Terms and definitions for equipment and protective systems intended for use in potentially explosive atmospheres
EN 60079-0	Electrical apparatus for potentially explosive atmospheres - Part 0: General requirements
EN 60079-1	Explosive atmospheres - Part 1 : equipment protection by flameproof enclosures "d"
EN 60079-2	Explosive atmospheres - Part 2 : equipment protection by pressurized enclosure "p"
EN 60079-5	Explosive atmospheres - Part 5 : equipment protection by powder filling "q"
EN 60079-6	Explosive atmospheres - Part 6 : equipment protection by oil immersion "o"
EN 60079-7	Explosive atmospheres - Part 7 : equipment protection by increased safety "e"
EN 60079-10	Electrical apparatus for explosive gas atmospheres - Part 10 : classification of hazardous areas
EN 60079-11	Explosive atmospheres - Part 11 : equipment protection by intrinsic safety "i"
EN 60079-13	Explosive atmospheres - Part 13 : equipment protection by pressurized rooms "p"
EN 60079-14	Electrical apparatus for explosive gas atmospheres - Part 14: electrical installations in hazardous areas (other than mines)
EN 60079-15	Electrical apparatus for potentially explosive atmospheres - Part 15: Type of protection "n"
EN 60079-17	Explosive atmospheres - Part 17: Inspection and maintenance of electrical installations in hazardous areas (other than mines)
EN 60079-18	Electrical apparatus for potentially explosive atmospheres - Part 18: Encapsulation "m"
EN 60079-19	Explosive atmospheres - Part 19: Repair and overhaul for apparatus used in explosive atmospheres (other than mines or explosives)

Reference	Title
EN 60079-20-1	Explosive Atmospheres - Part 20-1 : material characteristics for gas and vapour classification - Test methods and data
EN 60079-25	Electrical apparatus for gas explosive atmospheres - Part 25: intrinsically safe systems
EN 60079-26	Explosive atmospheres – Part 26 : equipment with equipment protection level (EPL) Ga
EN 60079-27	Explosive atmospheres - Part 27: fieldbus intrinsically safe concept (FISCO)
EN 60079-28	Explosive atmospheres - Part 28: protection of equipment and transmission systems using optical radiation
EN 60079-30-1	Explosive atmospheres - Part 30-1 : electrical resistance trace heating - General and testing requirements
EN 60079-30-2	Explosive atmospheres - Part 30-2 : Electrical resistance trace heating - Application guide for design, installation and maintenance
EN 62262	Degrees of protection provided by enclosures for electrical equipment against external mechanical impacts (IK code)
Non electrical equipment for potentially explosive atmospheres	
EN 1834-1	Reciprocating internal combustion engines - Safety requirements for design and construction of engines for use in potentially explosive atmospheres - Part 1: group II engines for use in flammable gas and vapour atmospheres
EN ISO 12852	Flame arresters - Performance requirements, test methods and limits for use
EN 13463-1	Non-electrical equipment for potentially explosive atmospheres - Part 1: basic method and requirements
EN 13463-2	Non-electrical equipment for use in potentially explosive atmospheres - Part 2: protection by flow restricting enclosures "fr"
EN 13463-3	Non-electrical equipment for use in potentially explosive atmospheres - Part 3: protection by flameproof enclosure "d"
pr EN 13463-4	Non-electrical equipment for use in potentially explosive atmospheres - Part 4: Protection by inherent safety (g)
EN 13463-5	Non-electrical equipment intended for use in potentially explosive atmospheres - Part 5: protection by constructional safety "c"
EN 13463-6	Non-electrical equipment for use in potentially explosive atmospheres - Part 6: protection by control of ignition source "b"
pr EN 13463-7	Non-electrical equipment for use in potentially explosive atmospheres - Part 7: protection by pressurisation (p)

Reference	Title
EN 13463-8	Non-electrical equipment for potentially explosive atmospheres - Part 8: protection by liquid immersion "k"
EN 13980	Potentially explosive atmospheres - Application of quality systems
EN 14373	Explosion suppression systems
EN 14460	Explosion resistant equipment
EN 14492-1+A1	Cranes - Power driven winches and hoists - Part 1 : power driven winches (2 - 2010-08-01)
EN 14492-2+A1	Cranes - Power driven winches and hoists - Part 2 : power driven hoists (2 - 2010-08-01)
EN 14797	Explosion venting devices
EN 14986	Design of fans working in potentially explosive atmospheres
EN 14944	Gas explosion venting protective systems
EN 15089	Explosion isolation systems
EN 15198	Methodology for the risk assessment of non-electrical equipment and components for intended use in potentially explosive atmospheres
EN 15233	Methodology for functional safety assessment of protective systems for potentially explosive atmospheres

Professional Documents

Reference	Title
Not applicable	

Regulations

Reference	Title
94/9/EC (ATEX 100 ¹ /ATEX 95 ²)	European Directive 94/9/EC (23/03/94) on the approximation of the laws of the Member States concerning equipment and protective systems intended for use in potentially explosive atmospheres
99/92/EEC (ATEX 118 ¹ /ATEX 137 ²)	European Directive 1999/92/EEC (16/12/99) on minimum requirements for improving the safety and health protection of workers potentially at risk from explosive atmospheres

¹ Reference to Articles 100/118 of the Treaty of Rome

² Reference to Articles 95/137 of the Treaty of Amsterdam

Application of Directive 94/9/EC alongside others that may apply:

- In the case of Directive 94/9/EC and the Directive relating to Electromagnetic Compatibility (EMC) no. 89/336/EEC (amended by 92/31/EEC and 93/68/EEC), the Directive 94/9/EC has to be applied to fulfil the requirements concerning explosive atmospheres safety requirements.
- Products for use in potentially explosive atmospheres are explicitly excluded from the scope of the Low Voltage Directive 73/23/EEC, except the relevant standards for the safety, controlling and regulating devices.
- Machinery directive: 98/37/EC, Art. 4.2. and Annex II sub B.

Codes

Reference	Title
Not applicable	

Other documents

Reference	Title
Ex/OD011-1/V3	Guidance on Use of the IECEx Internet based On-Line Certificate of Conformity System - Part 1: General Information
Ex/OD012/V2	Guidance on Use of the IECEx Internet based "On-Line" Certificate of Conformity System Part 2: Creating IECEx Equipment Certificates of Conformity CoCs
Ex/OD013/V2	IECEx Operations Manual - Assessment and Certification of Ex Repair and Overhaul Service Facilities - Assessment Procedures
Ex/OD014/V2	Quality Management System requirements for IECEx Service Facilities involved in repair, overhaul and modification of Ex equipment
Ex/OD015/V2	Technical Requirements for IECEx Service Facilities involved in repair, overhaul and modification of Ex equipment
Ex/OD016/V1	Assessment Procedures for IECEx acceptance of Candidate Certification Bodies (ExCBs) for the purpose of issuing IECEx Certificates to Ex Service Facilities involved in the Repair, Overhaul and Modifications of Ex equipment
Ex/OD017/V3	Drawing and Documentation Guidance for IEC Ex Certification
Ex/OD020/V1	Guidance for the Sampling of Group I Ex d Motors for Testing as Representative of a Range for Certification Purposes
Ex/OD021/V1	Guidance document for the Assessment of IS equipment and Systems
Ex/OD022/V1	Rules and Procedures for the granting of Licenses to issue and use the IECEx Conformity Mark



Reference	Title
Ex/OD023/V1	Terms and Conditions for use of the IECEx Conformity Mark
Ex/OD024/V1	IECEX Rules of Procedure covering testing, or witnessing testing at a manufacturer's or user's facility
Ex/OD025/V1	Guidelines on the Management of Assessment and Surveillance programs for the assessment of Manufacturer's Quality System, in accordance with the IECEx Scheme
IECEX 01	IEC Scheme for Certification to standards relating to Equipment for use in Explosive Atmospheres (IECEX Scheme) - Basic Rules
IECEX 02	IEC Scheme for Certification to standards relating to Equipment for use in Explosive Atmospheres (IECEX Scheme) - Equipment Certification Program covering equipment for use in explosive atmospheres - Rules of Procedure
IECEX 03	IEC Scheme for Certification to standards relating to Equipment for use in Explosive Atmospheres (IECEX Scheme) - IECEx Certified Facilities Program covering repair and overhaul of Ex equipment - Rule of Procedure
IECEX 04	IEC Scheme for Certification to Standards for Electrical Equipment for Explosive Atmospheres (IECEX Scheme) - IECEx Conformity Mark Licensing System - Regulations
IECEX 04 Supplement A	IECEX Guide - Guidance for making Application for and Use of IECEx Conformity Mark
IECEX 05	IEC Scheme for Certification of Personnel Competencies for Explosive Atmospheres - Rules of Procedure
IECEX OD034	Operational document - Guidance on the preparation of IECEx Certificates and Reports covering more than one identifiable item of equipment
OD 005	IECEX Quality system requirements for manufacturers
OD 009	IECEX Operations Manual -Procedures for the Issuing of IECEx Certificates of Conformity, IECEx Test Reports and IECEx Quality Assessment Reports

Total General Specifications

Reference	Title
GS EP ELE 161	Electrical cables
GS EP SAF 216	Area classification



3. Selection of electrical apparatus versus hazardous areas

At this stage due to some current significant differences between ATEX and the IECEx a split shall be done for this equipment selection.

3.1 Selection of electrical apparatus versus hazardous area according to ATEX directive

If the explosion protection document based on a risk assessment does not state otherwise, equipment and protective systems for all places in which explosive atmospheres may occur must be selected on the basis of the categories set out in Directive [94/9/EC](#).

In particular, the following categories of equipment must be used in the zones indicated, provided they are suitable for gases, vapours or mists as appropriate as per the Directive [1999/92/EEC](#), Annex II, Section B:

- In zone 0, category 1 equipment
- In zone 1, category 1 or 2 equipment
- In zone 2, category 1, 2 or 3 equipment.

The Process and/or Safety Engineer will classify the hazardous areas into zones 0, 1, 2 as defined in the standards [EN 60079-10](#). He will specify the maximum surface temperatures of the products (T_1 to T_6) and the apparatus group (II A - II B - II C) as per the CENELEC standard [EN 60079-0](#).

Unless otherwise specified in the Particular Specification or drawings, the apparatus group shall be IIA and the temperature class shall be T3 (200°C). Electrical equipment in batteries room shall be apparatus group II C.

Electrical apparatus with the following types of protection may be permitted to be installed in the zones indicated below:

- As per [EN 60079-14](#)

	Hazardous areas			Non-hazardous area
	Zone 0	Zone 1	Zone 2	
Type of protection of electrical apparatus	ia op is Or equipment compliant to EN 60079-26	d e ib m o p, px or py q op is op pr op sh Apparatus suitable for zone 0	pz n including nA & nA nL nC nR nL Apparatus suitable for zone 1	Normal industrial apparatus

3.2 Selection of electrical apparatus versus hazardous area according to IECEx scheme

If the explosion protection document based on a risk assessment does not state otherwise, equipment and protective systems for all places in which explosive atmospheres may occur must be selected on the basis of the Equipment Protection Levels set out in [IEC 60079-14](#).

In particular, the following EPL (Equipment Protection Level) must be used in the zones indicated, provided they are suitable for gases, vapours or mists as appropriate as per [IEC 60079-14](#):

Zone	Equipment Protection Level EPL
0	Ga
1	Ga and Gb
2	Ga, Gb and Gc

Similarly to ATEX, the Process and/or Safety Engineer will classify the hazardous areas into zones 0, 1, 2 as defined in the standards [IEC 60079-10](#). He will specify the maximum surface temperatures of the products (T_1 to T_6) and the apparatus group (II A - II B - II C) as per the IEC standard [IEC 60079-0](#).

Unless otherwise specified in the Particular Specification or drawings, the apparatus group shall be IIA and the temperature class shall be T3 (200°C). Electrical equipment in batteries room shall be apparatus group II C.

Electrical apparatus with the following types of protection will have the following EPL:

- As per [IEC 60079-14](#)

	EPLs			Non-hazardous area
	Ga	Gb	Gc	
Type of protection of electrical apparatus	ia ma op is Two independant types of protection each meeting EPL Gb as per IEC 60079-26	d e ib m,mb o p, px or py q op is op pr op sh Ga Apparatus	lc mc n or nA nR nL nC pz Gb Apparatus	Normal industrial apparatus

3.3 Equipment selection table

Yet, by Company decision the following shall be met:

- HV alternators & motors with type of protection “e” or “nA” shall not be used. For existing plants, the strict application of the [EN 60079-7](#) or [IEC 60079-7](#) is required where electric motors of “e” type of protection exist.
- The type of protection “N” as per BSI 5000 is no longer acceptable in zone 2 (since there is the European standard [EN 60079-15](#) and [IEC 60079-15](#)).
- Electrical apparatus which does not comply with the requirements of the [IEC 60079](#) standards series, but is recognized as safe by a national or the appropriate Authority shall be marked with the symbol “S”.

Electrical apparatus selection (references as per [EN 60079-14](#) or [IEC 60079-14](#))

The selection of electrical apparatus shall be carried out according to the **type of protection**.

Equipment type	Hazardous areas			Non-hazardous area
	Zone 0	Zone 1	Zone 2	
HV alternators	Prohibited	Prohibited	Ex “d” Ex “px”	Enclosed: IP23/IK08 Non-enclosed: IP55/IK08 Standard industrial generator
HV electric motors	Prohibited	Ex “d” or “de” (< 1 MW) Ex “px” (>= 1 MW)	Ex “d” or “de” (< 1 MW) Ex “px” (>= 1 MW)	IP55/IK08 Standard industrial motor

Equipment type	Hazardous areas			Non-hazardous area
	Zone 0	Zone 1	Zone 2	
LV alternators	Prohibited	Prohibited	Ex "d" Ex "nA"	Enclosed: IP23/IK08 Non-enclosed: IP55/IK 08 Standard industrial generator
LV electric motors P >= 100 kW	Prohibited	Ex "d" Ex "de"	Ex "d" or "de"	IP55/IK08 Offshore: EEx "nA" ³ Onshore: normal industrial motor
LV electric motors P < 100 kW	Prohibited	Ex "d" Ex "de"	Ex "nA"	
Variable Speed Drive (VSD)	Prohibited			Standard industrial
- HV Motor		Ex "d" or Ex "de" or Ex "px"	Ex "d" or Ex "de" or Ex "px"	
- LV Motor		Ex "d" or "de" (Equipped with temperature probe)	Ex "d" or "de" (Equipped with temperature probe)	
- Freq. converter		Prohibited	Prohibited	
- Transformer		Prohibited	Refer to HV/LV Transformer	
HV and LV power transformers (oil type)	Prohibited	Prohibited	Ex "o"	Indoors IP21/IK08 Outdoors IP55/IK08
- HV connection			Ex "e" (plug-in type terminal recommended) or Ex "o" Ex "p" if required	
- LV connection			Ex"e"	
- TR protection relay			(MCR*: Ex "ib") or Ex "d", Ex "e"	
HV switchgear	Prohibited	Prohibited	Prohibited	Normal industrial apparatus IP55/IK08
LV switchgear	Prohibited	Ex "d" or "de" (to be avoided, if possible)	Ex "d" or "de" (to be avoided, if possible)	
Lighting fixture ⁴ (Luminaires, floodlight, beaconing, emergency lighting)	Prohibited	Ex "de" Ex "d" Ex "e"	Ex "de" Ex "d" Ex "e"	Offshore: process areas: idem Zone 2 Living quarters: industrial type Onshore: industrial type

³ For standardization purposes

* Multicontrol Relay

⁴ Other combination of protection type (only suitable for category 2 or EPL Gb product may be used).

Equipment type	Hazardous areas			Non-hazardous area
	Zone 0	Zone 1	Zone 2	
Distribution panel (lighting, small power, etc.)	Prohibited	Ex "d" Ex "de"	Ex "d" Ex "de"	IP55/IK08
Control unit monitoring device security sensor	Ex "ia" Ex "ma"	Ex "ma/mb" Ex "d" or "de" Ex "d" Ex "ia/ib" Ex "px"	Ex "ma/mb" Ex "d" or "de" Ex "d" Ex "ia/ib" Ex "px"	IP55/IK08
LV socket outlet	Prohibited	Prohibited	Ex "de" Ex "d"	Offshore: process areas: idem Zone 2 Living quarters: industrial type Onshore: industrial type
Solenoid valve	Prohibited	Ex "e" Ex "d"	Ex "e" Ex "d"	IP55/IK08
Heater	Prohibited	Ex "d"	Ex "d" Ex "de"	IP55/IK08
Electric starter for diesel/gas engine	Prohibited	Prohibited	Prohibited	Enclosed: IP 23/IK 08 Non-enclosed: IP55/IK08
Junction box Terminal box	Prohibited	Ex "e"	Ex "e"	Offshore: process areas: idem Zone 2 Living quarters: industrial type Onshore: industrial type
Control Station Push button	Prohibited	Ex "de"	Ex "de"	Offshore: process areas: idem Zone 2 Living quarters: industrial type Onshore: industrial type
Trace heating	Prohibited	Ex "e" Ex "d"	Ex "e" Ex "d"	Industrial type
Accumulator Batteries	Prohibited	Ex "e" Protection against short circuits Insulated enclosure Natural cooling Global certification (box + battery box)	Ex "e" or IP23/IK08 minimum	Protection against short circuits Insulated enclosure Natural cooling IP22/IK08 minimum

Equipment type	Hazardous areas			Non-hazardous area
	Zone 0	Zone 1	Zone 2	
Package control panel	Prohibited	Ex "e" Ex "d"	Ex "e" Ex "d"	Industrial Type
Solar array	Prohibited	Ex "em"	Ex "n"	Industrial Type
Cable glands	Prohibited	In accordance with the equipment type of protection		Industrial type or in accordance with the equipment type of protection
		Equipment type: Ex "d" Ex "e" Ex "px"	Cable glands type: Ex "d" Ex "e" IP 55	
		Ex "n" (zone 2 only)	IP 55	

4. Cables and wiring

As a general rule, all cables running in hazardous areas shall be of armoured type as defined in the Company specification **GS EP ELE 161** (Electrical cables).

Armoured cables shall be used in zone 1 & 2.

Conduits for wires are prohibited.

5. Installation rules

5.1 Cable runs

In zone 1 and zone 2 areas:

- All rigid or flexible cables are to be adequately protected along their run against mechanical damages
- Cable entries into the equipment shall comply with the standard covering the apparatus protection method
- Electrical connections shall be of untightenable type and provisions shall be taken to prevent sparking and overheating
- The cable ducts should be either sufficiently large or the current in the cables sufficiently low to prevent any dangerous overheating due to bundling
- The cable ducts shall be fire-resisting or at the minimum flame retardant
- Sealing fittings (MCT) shall be effectively installed at the entrance of electrical room (pressurized or not-pressurized), at floor and wall crossings.



6. Documents required by Company

6.1 ATEX directive

6.1.1 EC Declaration of conformity

All electrical apparatus installed in a potentially explosive gas atmosphere (zone 0, 1, 2) shall be certified by a Notified Body. The list of Notified Bodies is given in the Appendix 4.

For equipment of categories 1 and 2, the Manufacturer shall deliver an EC Declaration of Conformity signed by the Manufacturer against an EC examination type certificate delivered by the Notified Body.

For electrical equipment of category 3 (for use in zone 2). Only EC declaration of conformity accompanied by statements of Compliance (or type examination certificate) delivered by a Notified Body shall be accepted by Company.

"Self certification" (by internal control of production) by the Manufacturer is not recognised by the Company.

6.1.2 EC type Examination

The EC type Examination certificate as described in the Appendix 1 § 3.6 shall be delivered to Company for category of equipment (1-2).

A type examination certificate (or "Statements of Compliance") shall be delivered to Company for equipment of category 3.

6.1.3 Quality assurance notification

A production quality assurance notification shall be delivered by the Manufacturer to Company for products of category 1-2 (Annex IV of the Directive).

A product quality assurance notification shall be delivered by the Manufacturer to Company for products of category 3 (Annex VII of the Directive)

These documents are delivered by the Notified Body to the Manufacturer upon successful quality audit.

Copies of all the EC Declarations of conformity and EC type examination certificates and type examination certificate (Statements of compliance) and valid quality assurance notifications shall be provided by Engineer/Contractor for Company review and/or approval.

All these documents shall be in English language. Translations (if any) shall be carefully checked.

6.2 IECEx scheme

6.2.1 IECEx Certificate of Conformity (CoC)

All electrical apparatus installed in a potentially explosive gas atmosphere (zone 0, 1, 2) shall be certified by an Ex Certification Body (ExCB).

The list of approved IECEx Certification Bodies (ExCBs) for the certified equipment program can be consulted on the IECEx Website at www.iecex.com/directory/bodies.



For electrical equipment of EPL Ga Gb or Gc, the Manufacturer shall have a valid IECEx Certificate of Conformity delivered by an ExCB and registered in the IEC/IECEx internet Website <http://iecex.iec.ch/iecex/iecexweb.nsf/welcome>. There is no paper copy delivered, and the electronic copy can be accessed and printed-out. This certificate usually contains access to the ExTR and QAR.

6.2.2 IECEx Test report

For electrical equipment of EPL Ga, Gb or Gc, the Manufacturer shall have a valid IECEx Test Report (ExTR), and this report shall be made available to Company with the associated Dossier submitted to ExCB for endorsement.

6.2.3 IECEx Quality Assessment Report

For electrical equipment of EPL Ga, Gb or Gc, the Manufacturer shall have a valid IECEx Quality Assessment Report (QAR), and this report shall be made available to Company with the associated Dossier submitted to ExCB for endorsement.

This document is delivered by the ExCB to the Manufacturer after a successful audit of specific factory, which shall be clearly established on the QAR.

All these documents shall be written in English language. Translation, if any, shall be carefully checked.

6.3 Verification Dossier

It is necessary to ensure that any installation complies with the appropriate certificates as well as with the IEC standard [IEC 60079-14](#), and any other specific requirements to the plant. In order to achieve this result a verification dossier shall be prepared for every installation/plant and shall be kept in the premises or stored in another location (in this case a clear indication shall remain on the premises of who owners are and where the verification dossier is stored).

The verification Dossier shall comply at least to the requirements of the [IEC 60079-14](#) § 4.2.

The verification Dossier may be kept as hard copy or in electronic format. Methods accepted by legislation in each country may vary the format in which the documentation will be legally accepted.

7. Marking

7.1 ATEX Directive

All electrical apparatus used in a potentially explosive gas atmospheres shall be identified by the marking system as described in Appendix 1 § 3.7.

This marking shall be legible, visible and durable taking into account possible chemical corrosion.

All products must bear the CE marking, which indicates conformity with the essential health and safety requirements of the EC directive, stated in the EC declaration of conformity followed by the Epsilon x in a hexagon (the specific marking of explosion protection).

7.2 IECEx scheme

All electrical apparatus used in potentially explosive atmospheres shall be identified by a specific marking system in line with [IEC 60079-10](#) and as described in Appendix 2 § 4.4 & 4.5.

This marking shall be legible, visible and durable taking into account possible chemical corrosion.

All products must bear the IECEx marking, which indicates conformity to the IECEx scheme, and this mark is made of the IEC logo, a specific Ex logo (marking of explosion protection) and an identification code, which allow identification of the license number and the ExCB which has granted the licence to use the Mark.

8. Other References

Following documents are applicable:

- Standards: [IEC 61892-7](#), [IEC 62262](#), [EN 13237](#), [EN 62262](#), [EN 14373](#), [EN 14460](#), [EN 14492-1+A1](#), [EN 14492-2+A1](#), [EN 14797](#), [EN 14944](#), [EN 15089](#), [EN 15198](#), [EN 15233](#), ,
- Other documents : [Ex/OD020/V1](#), [Ex/OD021/V1](#), [Ex/OD022/V1](#), [Ex/OD023/V1](#), [Ex/OD024/V1](#), [Ex/OD025/V1](#)
- Total General Specifications: [GS EP SAF 216](#)



Appendix 1 ATEX Directives n° 94/9/EC and n° 1999/92/EEC - Summary and general considerations

1. Foreword

Due to major changes brought by these two new ATEX (ATmosphères EXplosives) Directives, this paragraph aims at highlighting the main modifications and new requirements which become mandatory by national law in the European Union (EU) countries.

The new ATEX Directives are called “**new approach**”, a new method for a total harmonisation of regulations covering this field.

2. Situation before the 01 July 2003

- European regulations concerning electrical equipment for potentially explosive atmospheres were based on European directives which require regular modification in the form of application or adaptation to directives, in order to keep up with technical developments.
- The basic European text in this field was the directive 76/117/EEC, which provided the general framework for regulations which allows the free circulation of goods within the European Union. Also the safety national regulations had to be applied (e.g. France NFC 15000, etc.) for each country.
- This directive concerned only products.
- Electrical equipment for use in potentially explosive atmospheres is certified by a State-Notified Body often referred as the "Laboratory" when it meets the relevant European standards (EN 60079-0 and upwards) covering each type of protection (d, i, e, p, etc.). Such equipment may then be issued with a European “certificate of conformity”, entitling it to carry the distinctive Epsilon x mark. This mark opens the way to trading within the European Union and even on occasion outside it.
- This system has now been in operation for many years. Although largely beneficial, it has certain drawbacks, notably a lack of flexibility and the absence of a global concept for safety. It is going to be considerably modified by the new European directive 94/9/EC which was published in 1994. Application was on a voluntary basis as from 01/03/1996 and is mandatory since the 01/07/2003.
- Old Directives are repealed from July 2003:
 1. Directive 76/117/EEC (electrical equipment)
 2. Directive 79/196/EEC (electrical equipment employing certain types of protection)
 3. The system of Certification related to these Directives (**certificate of conformity** at European level for equipment in strict compliance with CENELEC standards and inspection certificate at national level only for equipment not strictly in accordance with CENELEC standards but offering at least the same safety level) has been repealed.

3. ATEX Directive 94/9/EC (applicable as from the 01 July 2003)

It aims at ensuring free movement for the products to which it applies, by removing barriers to trade via the “New Approach” concept.



3.1 Framework

It defines **essential health and safety requirements (EHSRs)**, without mandatory references to standards.

It applies to electrical and **non-electrical equipment**.

It applies to environments which are potentially explosive due to **gas and dust hazards**.

It takes into consideration **all potential hazards** equipment may cause, in particular at design and production level.

The one directive applies to both mines susceptible to fire damp, and surface industries.

It recognizes the European Standards Committee **CEN** and the European Committee for Electrotechnical Standardization **CENELEC** as competent bodies to draw up the relevant standards, according to the scope of the Directive. These standards are then published or not to the EC's official journal.

It defines **procedures for assessment of conformity** to essential requirements, on the basis of modules which qualify such equipment to be allowed to bear the **CE marking**.

Note:

Equipment are no longer to be in compliance with a series of standards (as in the past) but to satisfy essential Health and Safety requirements (this is the spirit of the "new approach" directive), and this is a major change.

*The application of the harmonised CENELEC standards (as in the past) is only a **presumption** of conformity to the directive.*

The list of harmonised CENELEC standards is published in the EC's official journal.

When harmonised or non harmonized standards do not exist, then other standards may be applied.

3.2 Scope of the directive

Included:

The directive applies to the industrial field and concerns the following equipment:

- Equipment (machines including internal combustion engines, apparatus, fixed or mobile devices, control and instrumentation components, etc.)
- Protective systems (explosion relief systems, flame arresters, etc.)
- Components (item essential to the safe functioning of equipment and protective systems but with no autonomous function: terminals, push button, relays, empty flame proof enclosures, ballast for fluorescent lamps, etc.)
- Safety devices, controlling devices and regulating devices intended for use outside potentially explosive atmospheres but required for the safe functioning of equipment or protective systems with respect to the risk of explosions (controller units for sensors temperature, pressure, flow, overload protective devices for motors of protection EEX "e", gas detectors, power supply to an Exi measurement system used for monitoring process parameters, etc.).

**Excluded:**

- Medical devices intended for use in a medical environment
- Equipment and protective systems where the explosion hazards result exclusively from the presence of explosive substances or unstable chemical substances
- Equipment intended for use in domestic and non-commercial environments
- Personal protective equipment covered by directive [89/686/EEC](#)
- Seagoing vessels and mobile offshore units (such as semi-submersible platforms, drilling jack up platforms)*, already covered by the IMO convention
- Means of transport, except for vehicles intended for use in a potentially explosive atmosphere.

***Note:**

Fixed platforms are included in the scope, as well as FPSO's and FPP's units, and also units and vessels (below 500 t) not intended for high sea (navigation on river, lakes, etc.).

3.3 Groups and categories of equipment

The ATEX directive provides a classification covering the equipment arranged into category depending on the level of safety requirement, the nature of inflammable substances and the degrees of presence or duration of the explosive atmosphere.

This classification is summarized below, with the required level of protection and their correlation with the code of hazardous areas commonly used worldwide (except North American codes).

The link between the hazardous area (zone) and the category of equipment is defined in the ATEX directive [1999/92/EC](#).

The various categories (1, 2, 3) of equipment must be capable of functioning in conformity with the operational parameters established by the Manufacturer to a certain level of protection. In all cases the equipment remains energized and functioning in the designated zone.

Group	Category of equipment	Presence or duration of explosive atmosphere	Inflammable substances	Level of protection Faults to allow for	Correlation with hazardous areas
Equipment Group I (mines)	M1				
	M2				
Equipment Group II (surface)	1	Continuous presence Long periods Frequent	Gas, vapours, mist, dust	Very high level of protection ----- 2 types of protection or 2 independent faults Rare faults allowed for	Zone 0, 1, 2 gas Zone 20, 21, 22 dust
	2	Likely to occur	Gas, vapours, mist, dust	High level of protection ----- 1 type, level of protection Frequently occurring disturbances, or faults allowed for	Zone 1, 2 gas Zone 21, 22 dust
	3	Unlikely to occur Present for a short period	Gas, vapours, mist, dust	Normal protection ----- Required level of protection for normal operation	Zone 2 gas Zone 22 dust

Caution:

Zone 0 requires category 1 equipment

Zone 1 requires category 2 equipment

Zone 2 requires category 3 equipment



3.4 Potential ignition sources and other hazards to be controlled

The following represent potential hazards which may exist:

- Various sources of ignition, such as sparks, flames, electric arcs, high surface temperatures, acoustic energy, optical radiation or electromagnetic waves
- Static electricity
- Stray electric and leakage current
- Overheating (friction, etc.)
- Pressure compensation operations
- Disturbance from external sources, such as overloading, faults, changing environmental conditions, extraneous voltage, humidity, vibrations or contamination
- Software (fault in the programme)
- Power failure
- Connections (conduits and cable entries).

Provision is also made for specific requirements governing devices used to provide additional equipment safety.

These requirements necessitate detailed analysis to assess the operational reliability of such devices and their interaction with other components connected with the equipment.

3.5 Conformity assessment procedures

There are various conformity assessment procedures allowing the Manufacturer to declare that the equipment and protective systems complies with the Directive [94/9/EC](#), depending on equipment group and category.

Equipment - Group II/Category 1:

The Manufacturer must follow the **EC type-examination** procedure in order to affix the **CE marking**, in conjunction with the procedure relating to production quality assurance **or** the procedure relating to product verification. All these procedures are under the Notified Body control and responsibility.

The EC type examination is the procedure by which a Notified Body ascertains and attests that a sample representative of the production envisaged meets the relevant applicable provisions of the Directive.

The Notified Body shall deliver to the applicant (which may be different from the manufacturer) an EC type examination certificate including the name and address of the Manufacturer, conclusions of the examination and the necessary data for the identification of the approved type.

Equipment - Group II/Category 2:

In the case of internal combustion engines or electrical equipment, the Manufacturer must follow-up the EC type-examination procedure (under the Notified Body responsibility) in conjunction with the procedure relating to conformity to type referred to **or** the procedure relating to product quality assurance.

For other equipment (non electrical equipment) the Manufacturer must follow the procedure relating to internal control of production and communicate the dossier provided for, to



a Notified Body which shall acknowledge receipt of it and shall retain it.

For placing the product on the market, the Manufacturer shall demonstrate he is able to manufacture products with the same quality level as the representative sample through a valid quality assurance notification delivered by a Notified Body (applicable to category 1-2).

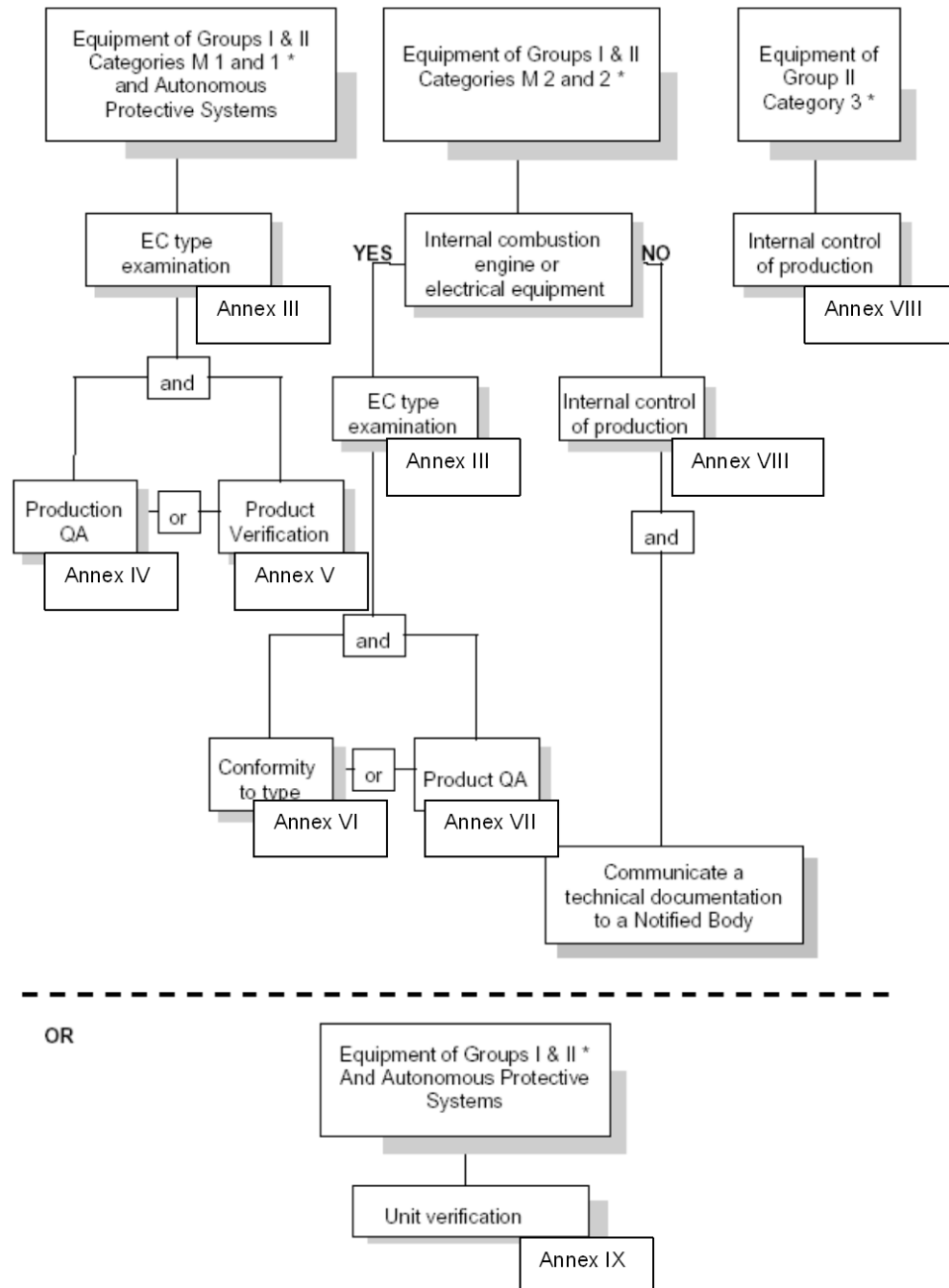
Equipment Group II/Category 3:

The Manufacturer must follow the procedure related to internal control of production.

Instead of the procedures here above mentioned (for category 1-2), the Manufacturer may follow the procedure relating to CE unit verification.

The above procedures are also applicable to components with the exception of the affixing of the CE marking.

Conformity Assessment Procedures



(*) and their components if separately certified

As a general rule, for electrical equipment, if each product cannot be individually inspected, the Notified Body (NB) performs an EC type examination then periodically ensures the conformity of equipment manufactured by means of a "production" or "product" quality assurance audit. These audits are carried out on the basis of the quality assurance standard [EN 13980](#) (specific to EX equipment) similar to ISO quality standards, series 9000. Validity of these audits at manufacturer's works is 3 years. Annual visit is organised.



The ATEX conformity assessment for equipment group II, category 3 (surface, zone 2 application) permits self certification by the Manufacturer without third party intervention (N.B.), i.e. via the internal control of production.

All the assessment procedures (for category 1-2) rely on the expertise of the Notified Bodies to provide the guarantee that the essential health and safety requirements have been complied with. This is not the case for category 3 for which the assessment is completely under the Manufacturer responsibility.

The EC declaration of conformity is always the direct responsibility of the Manufacturer.

3.6 Documents of conformity

3.6.1 Documents issued by the Manufacturer

EC Declaration of conformity:

Once the **Manufacturer** has undertaken the appropriate procedures to assure conformity with essential requirements of the directive, it is the responsibility of the Manufacturer or his representative to draw-up a written EC declaration of conformity for each manufactured product.

In his declaration, the Manufacturer or his representative declares that the explosion protected equipment placed on the market complies with all essential health and safety requirements. The undersigning of the EC declaration by the Manufacturer or his representative authorises them to affix the CE marking to the equipment (it is not permitted to affix the CE marking to components).

The EC declaration of conformity has to include the following information:

- The name or identification mark and the address of the Manufacturer or his authorised representative established with the European Union
- Description of the explosion protected equipment (mark, type, etc.).
- All relevant provisions fulfilled by the equipment
- Where appropriate, reference to the harmonised CENELEC standards
- Where appropriate, the national or international standards and technical specifications which have been used
- Where appropriate, references to other European Directives with the relevant standards which have been applied
- Where appropriate, the name, identification number and address of the Notified Body and the number of the EC-type-examination certificate
- Identification of the signatory who has been empowered to enter into commitments on behalf of the Manufacturer or his authorised representative established within the European Union.

Written Attestation of Conformity for components:

In addition to declaring the conformity of components with the provisions of the Directive, the written Attestation of Conformity has to state the characteristics of the components and how the components are to be incorporated into equipment or protective systems to ensure that the finished equipment or protective system meets the applicable essential health and safety requirements of the Directive.

**Documents accompanying the product:**

The EC declaration of conformity/the written attestation of conformity must accompany the information given with each single product or batch of products.

All equipment or protective systems must be accompanied by instructions which shall include:

- Repeat of the marking on the equipment
- Instructions for safe use and putting into service
- Assembling/dismantling and maintenance instructions
- Indication of danger areas
- Characteristics of special tools
- All relevant drawings.

All these instructions shall be translated in the language of the country where the equipment is installed. This is applicable for all the E.U. countries.

3.6.2 Documents issued by the Notified Body

The EC type examination certificate or type examination certificate is issued by the Notified Body.

Its number shall be as follows:

ZZZ	03	ATEX 1013	U
↓	↓	↓	↓
code of the Notified Body	Year of the certificate	Number of the certificate	Special conditions

X, if applicable, indicating that specific conditions apply as detailed in the certificate (for use, etc.).

U, if applicable, indicating that the item is a component (e.g.: an empty EEx “d” box; a Certification of the completed box (including all the electrical components) is required).

In addition the Notified Body may also issue the following documents according to the provisions of the relevant conformity assessment procedures:

- Production quality assurance notification (Annex IV of the Directive):
Include all the manufacturing process, and engineering and procurement aspects of the product (by NB).
- Product verification notification (Annex V of the Directive): (applied when manufacturer has no quality assurance plan)
Individual examination and testing of each piece (by NB).
- Conformity to type notification (Annex VI of the Directive): (applied when manufacturer has no quality assurance plan)
Each piece of equipment is type tested (by NB).
- Product quality assurance notification (Annex VII of the Directive):
Identical to Annex IV requirements with less engineering and procurement aspects.

- Unit verification notification (Annex IX of the Directive):
When no EC type examination is carried out and no quality assurance plan exists (applicable for a series of n products).
Include verification + test per unit.
- Certificate of conformity:
Issued by a Notified Body, when ATEX directive is not applied; the certificate is only based on IEC standards (but not CENELEC).

These documents need not to accompany the product.

All the documents issued by a Notified Body must be kept by the N.B. 10 years after the last product sale.

3.7 Marking of equipment

Three types of marking are provided:

- **CE marking**

The new directive ATEX 94/9/EC as well as the New Approach directives, provide for the affixing of the CE marking, as part of the conformity assessment procedures. Where a product is subject to several directives which all provide for the affixing of the CE marking, the marking indicates that the product is presumed to conform to the provisions of all these directives stated in the EC Declaration of Manufacturer's equipment.

The CE marking is mandatory and must be affixed before any equipment or protective system is placed on the market or put into service.

The CE marking is followed by the Notified Body number who has approved the product for category 1 or category 2.

- **Supplementary marking**

Equipment, protective systems and components must bear the specific marking of explosion protection, the Epsilon x in a hexagon, which is already known from the "old explosive atmospheres directive".

This marking has to be followed by the symbol of the Group (II) and Category (1-2-3) of equipment, and the letter G (concerning explosive atmospheres caused by gases, vapours, mists) and D (concerning explosive atmospheres caused by dust).

- **Additional marking**

Equipment, protective systems and components must be marked with all the necessary information essential to the safe use. The European standard series EN 60079-0 for electrical products foresees a supplementary marking:

- EX symbol indicates that the product is in compliance with one or more standards of this series
- The symbol for each type of protection (o, p, d, q, e, l, m, n)
- Apparatus group II A, II B, II C in case of type of protection d, i, q, or nc, nL
- Temperature class or maximum surface temperature.

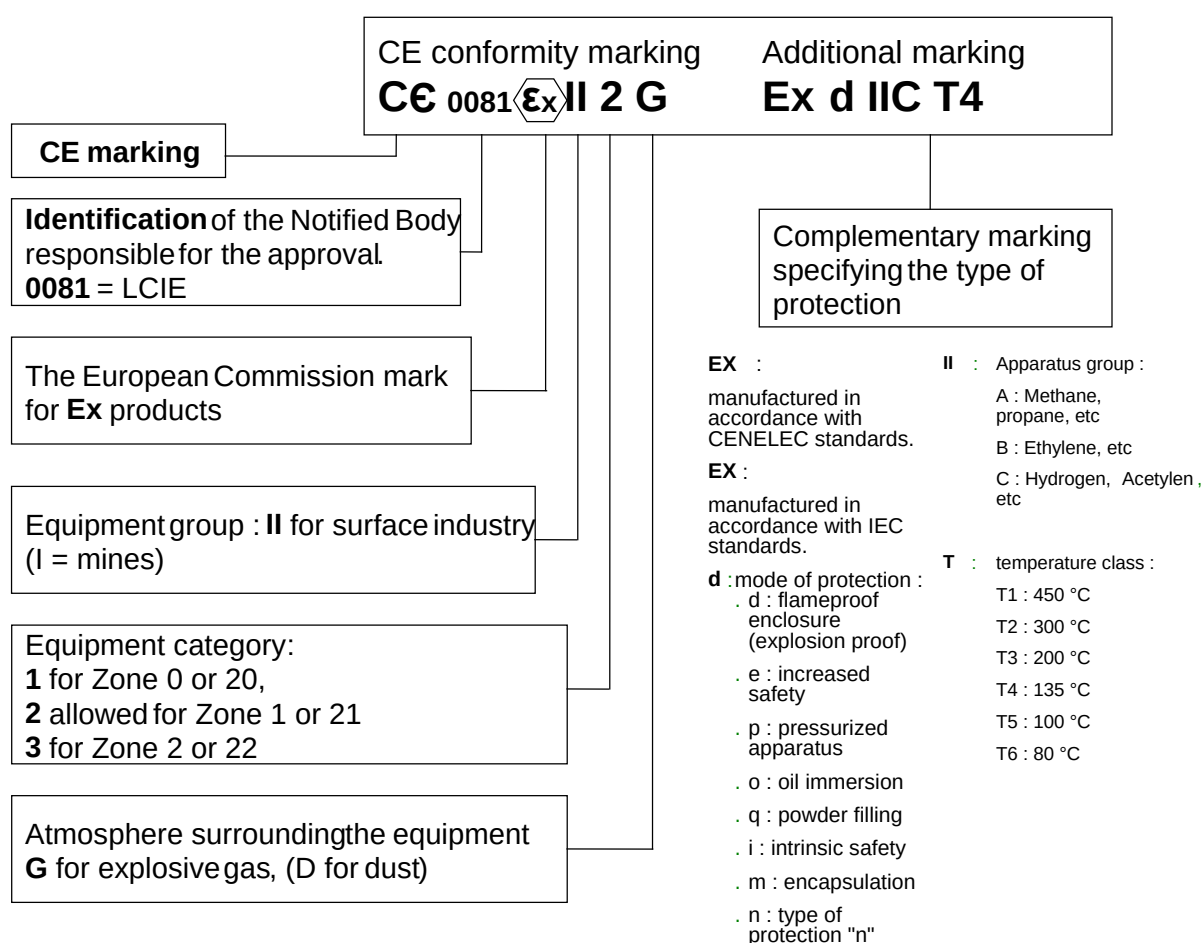
Any equipment or protective system accompanied by the EC declaration of conformity and bearing the CE marking as specified by the directive is considered by the Member States to be in conformity with the EC Directive 94/9/EC.

Components do not carry CE marking but must be covered by a written attestation of conformity.

Equipment bearing the CE conformity marking which presents a safety risk is withdrawn from the market and prohibited by the Member States under a specified procedure.

If equipment bearing the CE marking is found not to be in conformity, action is taken against those responsible for applying the marking.

Example for marking



Codes for all the Notified Bodies are indicated in Appendix 4.

4. ATEX Directive 1999/92/EC (applicable from the 01 July 2003) - Informative section

Although this Directive is not directly under the responsibility of the Technology Division DEV/TEC/ELE, but rather under the Exploitation Division OPS/EXP and SAFETY Division SAF herebelow are summarized the main requirements of this Directive which normally could not be separated from the ATEX Directive 94/9/EC.

- This Directive requires employers to protect workers from the risk of explosive atmospheres. Nothing equivalent did exist in the old directive.
- It does not apply to the use of appliances burning gaseous fuels in accordance with Directive [90/396/EEC](#), explosives and chemically unstable substances.
- To provide protection against explosion, the employer shall take technical and/or organisational measures appropriate to the nature of the operation, in order of priority and in accordance with the following basic principles:
 - The prevention of the formation of explosive atmospheres or where the nature of the activity does not allow that
 - The avoidance of the ignition of explosive atmospheres, and
 - The mitigation of the detrimental effects of an explosion so as to ensure the health and safety of workers.
- The employer shall carry out an assessment of explosion risks taking into account:
 - The likelihood that explosive atmospheres will occur and their persistence
 - The likelihood that ignition sources, including electrostatic discharges will be present and become active and effective
 - The installations, substances used, processes and their possible interactions
 - The scale of the anticipated effects.

The directive does not provide any means for an assessment of explosion risks.

Yet, a guide of good practice of a non binding nature, to address the topics of the directive has been prepared to the European Commission request (final edition dated April 2003).

Also the standard [EN 1127](#) might be used.

- The existing standards/codes such as API, IP15, [IEC 60079-10](#), French decree, are no longer considered as of strict application but only as reference documents.

The employer shall classify places where explosive atmospheres may occur into zones (zones 0, 1, 2). These zones have the same definition as the ones in the [IEC 60079-10](#) standard:

- The employer shall ensure that the minimum requirements as given in the Directive are applied to workplaces and workstations covering organisational measures (training of workers, written instructions and permits to work) and explosion protection measures.
- Where necessary, places where explosive atmospheres may occur, shall be marked with signs at their point of entry in accordance with the type defined in the Directive (symbol Ex in black letters on a yellow background in a triangular shape).



- The employer shall ensure that a document hereinafter referred to as the “**explosion protection document**” is drawn up and kept up-to-date. This document shall demonstrate in particular:
 - That the explosion risks have been determined and assessed
 - That adequate measures will be taken to attain the aims of this Directive
 - Those places which have been classified into zones
 - Those places where the minimum requirements set out will apply
 - That the workplace and work equipment, including warning devices, are designed, operated and maintained with due regard for safety
 - That in accordance with Council Directive [89/655/EEC](#), arrangements have been made for the safe use of work equipment.

The explosion protection document shall be drawn up prior to the commencement of work and be revised when the workplace, work equipment or organisation of the work undergoes significant changes, extensions or conversions.

5. Non electrical equipment for potentially explosive atmospheres - Informative section

The new Directive ATEX [1999/92/EC](#) intends to protect the workers against all sources of risks: non electrical equipment must comply with the minimum requirements of safety when they operate in the work places in the same way as electrical equipment.

The new Directive ATEX [94/9/EC](#) has introduced in its scope not only the electrical equipment, but also the **non electrical equipment** (mechanical, pneumatic, hydraulic, etc.) with specific Essential Health and Safety Requirements.

This annex has aimed to highlight some features and to bring to the “mechanical engineers” knowledge about the new requirements brought by this Directive, of which the application is mandatory in the EU countries.

It should be noted that mechanical machinery and equipment are generally not ignition sources during normal operation contrary to electrical equipment. The types of ignition sources which can arise when malfunctions occur in non-electrical equipment are usually hot surfaces or mechanical sparks from friction or impacts.

For many decades, mechanical equipment such as pumps, fans, compressors have been used in potentially explosive atmospheres and have worked safely. This happens in general without special regulatory control or standards, but is based on good design of machinery and equipment, backed up by well-founded engineering knowledge used to choose and install this equipment. Yet the ATEX Directive [1999/92/EC](#) requires that a risk analysis be carried out on all non electrical equipment.

The CEN has the responsibility to prepare and to issue the relevant standards.

Non electrical equipment shall meet the requirements of the standards [EN 13463](#) series (or pre-standards pr EN) as listed in # 2.

New type of protection have been introduced (fr, g, c, b) which did not exist in the past in the electrical field. Also type of protection already used by the electrical engineers in the past (d, p) are covered by a different standard for non electrical equipment.



Appendix 1

In addition to the above, other standards covering flame-arresters ([EN 12852](#)), Design of fans working in potentially explosive atmospheres ([EN 14986](#)), etc., have been issued or are under preparation.

Non electrical equipment include stand alone mechanical equipment or part, like a pump or valve and complete engineered equipment made of several components including electrical equipment or parts like a belt conveyor.

Potential and effective ignition sources and measures to prevent them to become effective must be assessed.

Normal operation, expected malfunctions and rare malfunctions have to be taken into account in liaison with equipment category.

In short, it can be said that a derating factor must be applied on the rollers of mechanical rotating equipment, or temperature monitoring be provided.

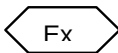
This short annex is a draft only and is to be developed in the future by the mechanical engineers (TEC/MTH).

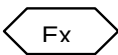
Diesel generator in Zone 2 area:

Standards [EN 1834](#) part1 shall be taken into consideration.

MARKING:

Marking for a package, skid, including for example an electric motor + a pump + various other elements shall be marked for example as follows.

Motor: C E 081  II 2 G - EEx d II B T3

Pump: C E  II 2 G - C T 3

Other item:

Skid: C E II 2 G

It shall be the responsibility of the packager to make an explosion risk analysis to make sure of the right assembling of the various items onto the skid/package.

The packager shall issue the EC declaration of conformity.

Quality assessment of the package shall be mandatorily evaluated in accordance with Annex IX of the Directive (Unit Verification).

6. Existing Facilities (before the 01/07/03) - Informative section

They also fall under the ATEX directives since the 01/07/03.

Certificates of conformity to harmonized standards obtained in compliance with previous directives will remain valid only if products meet the Essential and Health Safety Requirements of the new Directive.

For existing "work equipment", they must comply with the minimum requirements of the USERS directive ([1999/92/EC](#)) and be safe. This is achieved by a formal risk assessment which looks at the individual pieces of equipment. This risk analysis should have been completed by 01/07/03.

The End users must review their equipment and provide an analysis as to whether their equipment can be a source of risk. Guidelines are given in the directive for how to conduct the risk assessment (hot points, leakage, friction due to contact, etc.). End users are responsible for



Appendix 1

this analysis. In some cases, a consultant or the equipment Manufacturer can do this risk assessment.

The inspection of the equipment may however reveal some damages, for instance the casing which will need to be taken into account in the risk assessment (e.g.: joints in flameproof motors).

Also the "Explosion Protection Measures" (deadline: 30/06/06) shall show how all the "works equipment" operate together in the "work place" (emergency situation during power failure, etc.).

Existing "Workplaces" shall comply with the minimum requirements of the USERS directive (1999/92/EC) no later than the 01/07/2006.

Particular attention shall be paid to Ex"n" and Ex"e" HV motors for which the standards have changed (risk of sparking during starting). For LV motors, only motors of type "e" which have been rewound shall be checked. Also LV motors used in variable speed drive operation should be checked carefully.

Attention is drawn also on the new requirements for the repair of Ex equipment, with a greater responsibility placed on the end-user.



Appendix 2 IECEx Scheme

1 Foreword

This annex is intended to highlight to the reader the main feature of the IECEx scheme and give him an overall understanding of the IECEx scheme and future developments.

2 Introduction

The differing national and regional approaches to Both Ex design and Test Standards and Ex equipment testing and verification caused problem for Manufacturers and End users. For Manufacturers there were differing design standards and then the duplication of Ex testing and Certification/Approvals all adding undue cost and delays in accessing markets while for End users the duplication of testing and certification meant various systems to be maintained in parallel for global companies, delays in accessing new products and additional costs.

While Regional systems such as the ATEX Directive have enabled improvements in this area within the European Union (EU) and associated countries, a more global approach was needed, which saw the development of the International IECEx scheme, driven by the Ex Industry in need of removing duplication of testing and certifications when accessing multiple market Worldwide.

3 The IECEx certification scheme

Problems such as these led to agreement being reach, within IEC, on the need for a single Global Certification Scheme dedicated to the Ex field and formation of Working Group, WGEx (in the early 1990s), under Convenership of Nick Maalouf, of CSA at the time, and the WGEx Task Force under TF Leader Mr Ian Cleare, of EECS, UK, at the time (who then went on to become the first IECEx Chairman). Immediate work for this new WGEx sought to overcome the following immediate obstacles:

- The different regulations at National and regional levels
- In many case the splitting of regulations within a country, e.g. one set covering underground mining operations and another for non mining Ex areas

The first meeting of IECEx Management Committee did take place in June 1996 in London, where the decision was taken to move ahead and the respective officers appointed and framework for a global certification system initiated.

3.1 IECEx governing documents

The documents which state the Rules of the IECEx Scheme and which govern the organization of its work are as follows:

- The Statutes of the IEC
- The Rules of Procedure of the IEC and the ISO/IEC Directives, unless otherwise specified in the Rules of Procedure of the IECEx Scheme
- The Basic Rules which define the principles of the IECEx Scheme and which are approved by the CAB



- The Rules of Procedure which define the working procedures of the IECEx Scheme. The Rules of Procedure are decided upon and amended by the ExMC. The Rules of Procedure of the IECEx Scheme and amendments to them shall be notified to the CAB.

In 12 years with an IECEx Management Committee comprising representatives of 28 countries, IECEx has developed a complete suite of Rules, Operational Manuals & Procedures, and standardised forms to create a single Ex test certification system with many IECEx Certification Bodies operating as IECEx certification providers.

The IECEx rules have been published as IEC documents, and are the following:

- **IECEX 01:** IEC Scheme for Certification to Standards relating to Equipment for use in Explosive Atmospheres (IECEX Scheme) - Basic Rules.
- **IECEX 02:** IEC Scheme for Certification to Standards relating to Equipment for use in Explosive Atmospheres (IECEX Scheme) - Equipment Certification Program covering equipment for use in explosive atmospheres - Rules of Procedure.
- **IECEX 03:** IEC Scheme for Certification to Standards relating to Equipment for use in Explosive Atmospheres (IECEX Scheme) - IECEx Certified Service Facilities Program covering repair and overhaul of Ex equipment - Rules of Procedure.
- **IECEX 04:** IEC Scheme for Certification to Standards relating to Equipment for use in Explosive Atmospheres (IECEX Scheme) - IECEx Conformity Mark Licensing System - Regulations.
- **IECEX 04 Supplement A:** IECEx Guide - Guidance for making Application for and Use of IECEx Conformity Mark.

It should be reminded that in addition to the preparation of International Standards, the IEC facilitates the operation of Conformity Assessment Schemes, such as IECEx scheme. Then, the particular object of the IECEx Scheme, operated under the authority of the IEC, namely the IEC Conformity Assessment Board (CAB), is to provide a global frame work for independent assessment and certification of equipment and services associated with explosive atmospheres.

The IECEx Scheme comprises the following two Global Certification Programs:

- The IECEx Certified Equipment Program
- The IECEx Certified Service Facilities Program.

3.2 Membership & Application

Any country in which there is a Member National Committee of the IEC may apply for membership of the IECEx Scheme. Membership of IECEx is also open to non-IEC countries under certain conditions.

The Member Body of the IECEx Scheme shall be representative of the national conformity assessment community in Ex equipment. It may be either:

- The National Committee of IEC
- A body notified to the IEC by the National Committee of the IEC.

Application for membership shall be submitted to the Secretary of the Ex Management Committee (ExMC) by the National Committee of the IEC. The candidate Member Body shall



undertake to abide by the Basic Rules and Rules of Procedure of the IECEx Scheme. There shall be only one Member Body of the IECEx Scheme in a particular country.

Countries and Certification Bodies can apply to become members of the IECEx Scheme with Certification bodies able to issue IECEx Certificates once accepted according to the application procedures.

National Member Bodies of the IEC Scheme make application for their country to participate in the IECEx Scheme on a Standard-by-Standard basis. The application is made to the Secretary of the Ex Management Committee (ExMC).

Certification bodies and testing laboratories wishing to be accepted into the IECEx Scheme must reside in a participating country. Their application for acceptance is made through their National Member Body of the IECEx Scheme for the country in which they reside.

Certification bodies (ExCB) and testing laboratories (ExTL) are accepted into the IECEx Scheme after satisfactory assessment of their competence. Assessors are selected who will provide confidence to regulatory authorities, users, manufacturers and certification bodies.. ISO/IEC Standards 17025 and ISO/IEC Guide 65, and IECEx Technical Guidance Documents are used as part of the IECEx assessment process

Ex equipment Manufacturers and Ex Service Providers can apply to existing IECEx Certification Bodies (termed [ExCBs](#)), in any country.

4 The IECEx certified equipment program

The IECEx Equipment Certification Program provides the means for manufacturers of Ex equipment to obtain certificates of conformity that are intended to be accepted in all participating countries as equivalent to their national certification. An IECEx CoC may also be accepted in other non-participating countries.

An IECEx CoC may be issued by any ExCB accepted into the Scheme. The certificate will attest that the equipment's design conforms to the relevant IEC Standards and that the manufacturer is manufacturing the product under a quality system and associated quality plan(s), meeting the requirements of this Scheme and under the surveillance of an ExCB. The IECEx quality system requirements are based on ISO 9001, with additional requirements specific to the design, manufacture and testing of Ex equipment.

The IECEx CoC may be issued for a product with its variety of types, including different processes and electrical connections, different temperature classes, different types of protection, etc

4.1 Governing rules

The scheme is served by a set of rules and Operating Documents:

- **IECEx 02:** IEC Scheme for Certification to standards relating to Equipment for use in Explosive Atmospheres (IECEx Scheme) - Equipment Certification Program covering equipment for use in explosive atmospheres - Rules of Procedure.
- **OD 005:** IECEx Quality system requirements for manufacturers.
- **OD 009:** IECEx Operations Manual -Procedures for the Issuing of IECEx Certificates of Conformity, IECEx Test Reports and IECEx Quality Assessment Reports.
- **Ex/OD017/V3:** Drawing and Documentation Guidance for IEC Ex Certification.



- **Ex/OD025/V1**: Guidelines on the Management of Assessment and Surveillance programs for the assessment of Manufacturer's Quality System, in accordance with the IECEx Scheme.
- **IECEX OD034**: Operational document - Guidance on the preparation of IECEx Certificates and Reports covering more than one identifiable item of equipment.

4.2 IECEx equipment certification process

From inception of the IECEx Scheme, it has always been planned that the Scheme would adopt the principles of an ISO Type 5 Product Certification Scheme, in compliance with ISO/IEC Guide 65. Therefore, it is important that the meaning and role of an IECEx CoC is clearly understood.

An Equipment Certificate of Conformity, as provided for under the IECEx Scheme, requires the successful assessment of both sample testing and factory inspection/audit prior to the CoC being issued. In this sense the CoC is providing assurance that the manufacturer has the capability to produce a product, complying with standards listed on the certificate, consistently.

Therefore an IECEx Equipment CoC confirms that both:

- Sample(s) tested were found to meet the Standards and
- The manufacture's quality system meets IECEx requirements.

While focus of the IECEx Scheme is on the issuing of an IECEx Equipment CoC, the Scheme provides flexibility to cater for markets where National Standards are not yet identical to IEC and where a local or national certificate is still required.

Therefore IECEx Certification Bodies (as listed on the IECEx Website) are able to issue manufacturers with any of the following:

- **An IECEx Test Report (ExTR)** which provides confirmation that a sample was tested and found to comply with the Standards shown in the Report, basically IEC standards prepared by TC 31.
- **An IECEx Quality Assessment Report (QAR)** which provides assurance that a manufacturer's quality system has been audited and found to meet IECEx requirements, which are based on ISO 9001:2000.
- **An IECEx Equipment Certificate of Conformity (CoC)** which provides assurance that both an ExTR and QAR have been successfully completed, covering the product listed on the certificate and that the ExCB, issuing the CoC, has placed the manufacturer under a surveillance program in accordance with IECEx requirements, to ensure that the manufacturer maintains compliance with IECEx quality system requirements and IECEx rules.

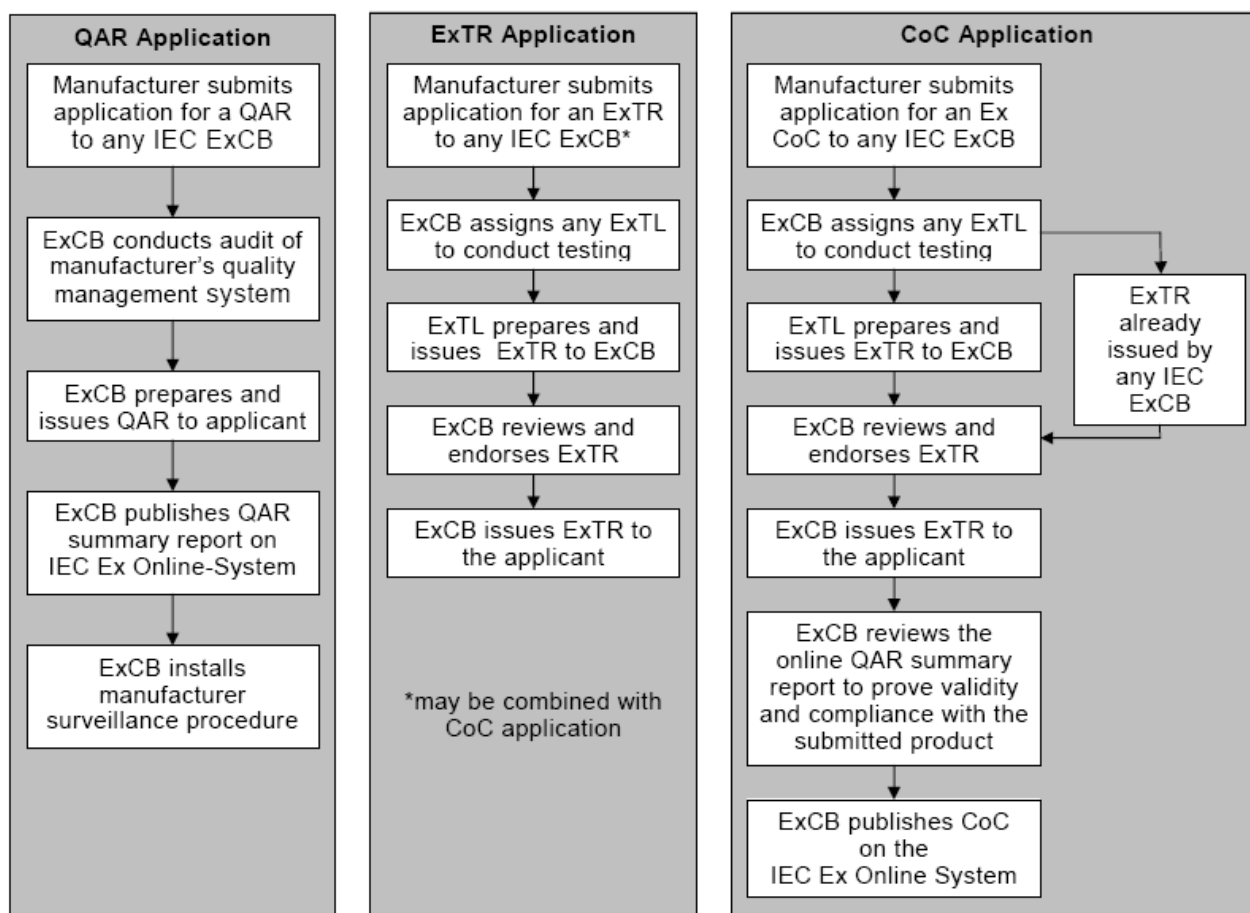
This certification process is applicable to ALL equipment to be installed in potentially explosive gaz atmosphere, the certification process by an ExCB is mandatory for equipment with an EPL Ga or Gb or Gc. This basically means that IECEx scheme does not allow self certification for equipment to be installed in zone 2 hazardous area, which is a clear difference with ATEX scheme.

Furthermore, where an IECEx CoC is issued, the ExCB which has issued the CoC shall ensure that periodic surveillance of the certified Ex equipment is performed including examination of documentation and assessment of the Manufacturer's quality management system. The frequency of such surveillance, inspection and assessment and testing shall be determined by the issuing ExCB in accordance with the IECEx equipment certification program requirements

and in light of the effectiveness of the Manufacturer's quality plan(s). Typically this surveillance audit should be performed every two to three years.

The certification process can be summarised by the following figure, which shows the three processes to be implemented:

Overview for Issuing IECEx Certificates of Conformity, ExTRs and QARs



4.3 Certification validity

Once an IECEx CoC is issued it is necessary that the ExCB maintains surveillance of the manufacturer in order to have objective evidence that the manufacturer maintains the capability of producing Ex products that comply with the Standards listed on the IECEx CoC. Therefore, the IECEx CoC System provides for the following status of an IECEx Equipment CoC:

- Draft
- Current
- Suspended
- Cancelled.

Draft - This is the status during the preparation or drafting of an IECEx CoC by the ExCB. Only the ExCB that is creating the draft and the System Administrator may view draft CoCs. Other ExCBs or the public CANNOT view Drafts prepared by another ExCB.

Current - Once approved for issue by the ExCB, a CoC is regarded as Current and remains so while the requirements of the IECEx Scheme are being fulfilled by both Manufacturer and ExCB, including surveillance of the manufacturer. A current certificate can be viewed by everybody

Suspended - Once a CoC is issued and the ExCB conducts surveillance of the manufacturer, there may be a need to “temporarily” Suspend an IECEx CoC. During this time the manufacturer cannot apply the IECEx certification number to the products nor can he claim that such products are covered by the IECEx CoC. A Suspended CoC does not mean that Ex products produced prior to the suspension are no longer in compliance. Suspended CoCs can be viewed by everybody.

Cancelled - Should a manufacturer no longer wish to continue with production of the Ex product, listed on the IECEx CoC, the CoC may be “Cancelled”. It will however remain active on the system for viewing by everybody as a means demonstrating that the product, installed in the field, has been previously certified. Alternatively, an ExCB may cancel a certificate where a manufacturer no longer complies with the obligations of the IECEx Scheme. Cancelled CoCs can be viewed by everybody.

4.4 Equipment marking

Four type of Marking will be provided on the equipment:

- A general marking as per paragraph 29.2 of [IEC 60079-0](#):

This general marking shall be made of:

- The name of the Manufacturer
- The Manufacturer type identification
- A serial number
- The IECEx Equipment CoC Number made of the following:

IECEx **YYY ZZ.0000** where:

- **IECEx** = Identifies that the certificate has been issued in accordance with the IECEx Rules and Procedures
- **YYY** = the ExCB code/acronym (refer to Appendix 4)
- **ZZ** = The last two digits of the year of issue
- **0000** = the consecutive number of certificate for that year. This number is reset for each year.

- Ex marking for explosive atmosphere as per paragraph 29.3 of [IEC 60079-0](#):

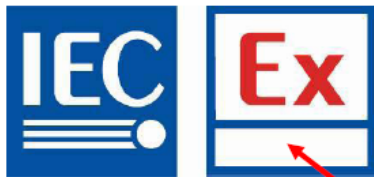
This Ex marking shall be made of:

- The symbol Ex
- The symbol of each type of protection used (d, e, ia, ib, ic, ma, mb, mc, nA, nC, nR, nL, o, px, py, pz, q)
- The symbol of the gas group (IIA, IIB or IIC)
- The symbol of the temperature class (T1 to T6)
- And the equipment protection level (EPL), i.e. Ga, Gb & Gc (or Ma & Mb for the Mines).

- A warning marking, when required, as per paragraph 29.11 of [IEC 60079-0](#)

- The IECEx Conformity Mark (optional):

The Mark includes the IEC logo and an Identification Code to identify both the License Number and the Certification Body which has granted the License to use the Mark. The IECEx Conformity Mark, complete with Identification Code (see Figure 1 for an example without identification Code), is available from the IECEx Conformity Mark License issuing ExCBs.



Area for Identification Code issued by the ExCB to Licensee

Figure 1 - The IECEx Conformity Mark

4.5 Equipment marking examples



ABB Oy

Type: M3JP100 - Serial Number: 00123

IECEx LCIE 08.2222X

Ex de IIB T3 Gb

Or with a contrasting background color:





5 The IECEx certified service facilities program

The IECEx Certified Service Facilities Program provides the means for Service Facilities to obtain an IECEx certificate that is intended to provide the international Ex community with confidence that such Service Facilities undertake repair and overhaul work in accordance with the technical and quality system requirements of the IECEx Service Facilities Program. The aim of the IECEx Service Facilities Program is to ensure that IECEx Certified Service Facilities comply with the following:

- Possess and maintain in operating condition the equipment (including specialized equipment) required for repair (including, major repair) of Ex equipment
- The establishment and implementation of system procedures
- Possess as a minimum one person determined as competent in the Ex repair field by the ExCB
- Possession and maintenance of necessary test and measuring equipment that is adequate and under calibration control.

IEC 60079-19 and IECEx Certified Service Facility Program's quality management system requirements, based on the relevant requirements of ISO 9001 with additional requirements specific to the repair, overhaul or modification of Ex equipment, form the basis of the IECEx Service Facilities Program requirements.

The IECEx Service Facility certificate may be issued for a specific area of operation of an Ex repair facility, for example to cover repair and overhaul of Ex d rotating machines only.

Ex Repair and Overhaul Service Facilities that have attained and maintain IECEx certification may affix the IECEx logo to workshop repair reports and stationery providing that there is no misrepresentation of the scope of certification.

5.1 Governing rules

The scheme is served by a set of rules and Operating Documents:

- **IECEx 03:** IEC Scheme for Certification to Standards relating to Equipment for use in Explosive Atmospheres (IECEx Scheme) - IECEx Certified Service Facilities Program covering repair and overhaul of Ex equipment - Rules of Procedure.
- **Ex/OD011.1/V2:** Guidance on Use of the IECEx Internet based On-Line Certificate of Conformity System - Part 1: General Information.
- **Ex/OD013/V2:** IECEx Operations Manual - Assessment and Certification of Ex Repair and Overhaul Service Facilities - Assessment Procedures.
- **Ex/OD014/V2:** Quality Management System requirements for IECEx Service Facilities involved in repair, overhaul and modification of Ex equipment.
- **Ex/OD015/V2:** Technical Requirements for IECEx Service Facilities involved in repair, overhaul and modification of Ex equipment.
- **Ex/OD016/V1:** Assessment Procedures for IECEx acceptance of Candidate Certification Bodies (ExCBs) for the purpose of issuing IECEx Certificates to Ex Service Facilities involved in the Repair, Overhaul and Modifications of Ex equipment.



5.2 Service Facility certification process

A Service Facility Certificate of Conformity, as provided for under the IECEx Scheme, requires the successful inspection/service facility audit prior to the CoC being issued. In this sense the CoC is providing assurance that the Service Facility Location has the capability to provide a Type of Service for the Type of Protection listed on the certificate, consistently.

Therefore IECEx Certification Bodies (as listed on the IECEx Website) are able to issue a Service Facility with the following:

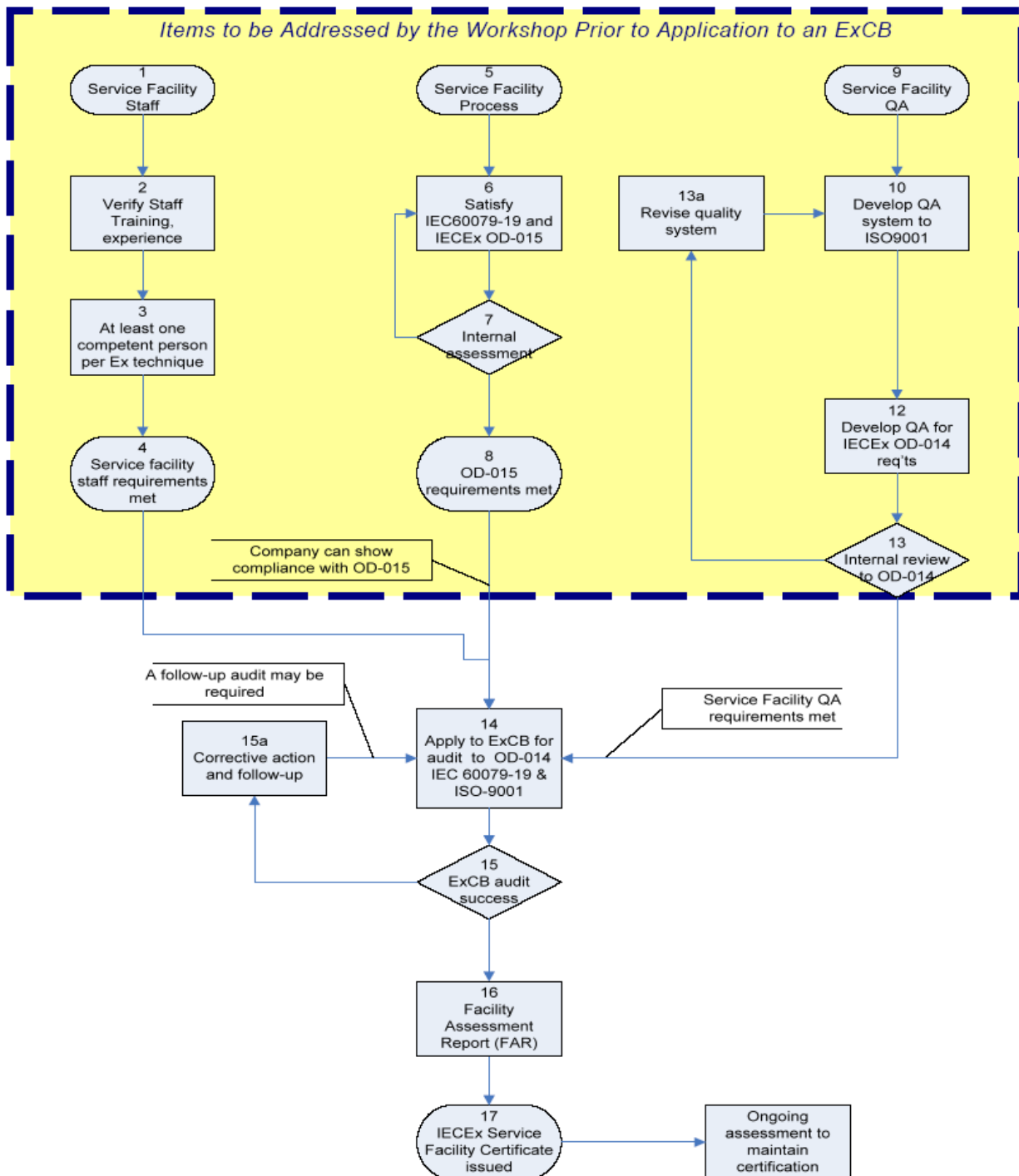
- **An IECEx Facility Assessment Report (FAR)** which provides assurance that a Service Facility Location quality system has been audited and found to meet IECEx requirements, which are based on ISO 9001:2000.
- **An IECEx Service facility Certificate of Conformity (CoC)** which provides assurance that a FAR have been successfully completed, covering the type of service listed on the certificate and that the ExCB, issuing the CoC, has placed the locations covered by the Certificate under a surveillance program in accordance with IECEx requirements, to ensure that the service facility maintains compliance with IECEx quality system requirements and IECEx rules.

Appendix 2

The certification process can be summarised by the following figure, which shows the processes to be implemented:

Guide to IECEx Service Facility Certification

As per OD-013





5.3 Certification validity

Once an IECEx Service Facility CoC is issued it is necessary that the ExCB maintains surveillance of the Service Facility Location in order to have objective evidence that the locations covered by the certificate maintain the capability of providing the Type of Service listed on the IECEx Service Facility CoC. Therefore, the IECEx CoC System provides for the following status of an IECEx Service Facility CoC:

- Draft
- Current
- Suspended
- Cancelled.

Draft - This is the status during the preparation or drafting of an IECEx CoC by the ExCB. Only the ExCB that is creating the draft and the System Administrator may view draft CoCs. Other ExCBs or the public CANNOT view Drafts prepared by another ExCB.

Current - Once approved for issue by the ExCB, a CoC is regarded as Current and remains so while the requirements of the IECEx Scheme are being fulfilled by both service facility provider and ExCB, including surveillance of the location(s) covered by the Certificate. A current certificate can be viewed by everybody

Suspended - Once a CoC is issued and the ExCB conducts surveillance of the location(s) covered by the CoC, there may be a need to “temporarily” Suspend an IECEx CoC. During this time the Applicant cannot claim that the particular Type of Service is covered by the IECEx CoC. A Suspended CoC does not mean that the Type of Service provided prior to the suspension is no longer in compliance. Suspended CoCs can be viewed by everybody.

Cancelled - Should an Applicant no longer wish to continue with the Type of Service, listed on the IECEx CoC, the CoC may be “Cancelled”. It will however remain active on the system for viewing by everybody. Alternatively, an ExCB may cancel a certificate where an Applicant no longer complies with the obligations of the IECEx Scheme. Cancelled CoCs can be viewed by everybody.

The issuing ExCB shall sign an agreement with the Service Facility to enable the ExCB to carry out, or arrange for another body to carry out on its behalf, periodic surveillance of the Service Facility's quality system and quality plan(s) that shall include onsite assessments at the Service Facility's premises. The frequency of such surveillance, inspection and assessment shall be determined by the ExCB in accordance with the IECEx Scheme requirements and in light of the effectiveness of the Service Facility's quality plan(s). Such frequency shall take into account whether the Service Facility holds current ISO 9001 certification/registration by a competent body.

In the framework of the required surveillance of the certification validity, the Assessment of the Service Facility must be repeated every three years. This assessment might be carried out in two steps depending of the Service facility readiness:

- **Surveillance audit:** The process of assessment needs to be maintained. This is done through Surveillance audits. An FAR is used to report on surveillance audits.
- **Preliminary assessment:** Prior to the assessment, the Service Facility may request that an ExCB conducts a preliminary assessment. The purpose of a preliminary assessment is to check that a Service Facility is ready for the official assessment. This type of assessment does not have formal non-conformances, but items of concern may be raised which should be corrected prior to the official assessment.

5.4 IECEx Service Facility Certificate of Conformity

The IECEx Service Facility CoC Number assigned to each CoC comprises the following:

IECEx **YYY** **S.0000** where:

- **IECEx** = Identifies that the certificate has been issued in accordance with the IECEx Rules and Procedures
- **YYY** = the ExCB code
- **S0000** = the consecutive number of the certificate.

Sample IECEx Certificate Service Facility Certificate of Conformity



The image shows a sample IECEx CoC Certified Service Facility certificate. It features the IEC and IECEx logos on the left. The main title is "IECEx CoC Certified Service Facility". Below this, it reads "INTERNATIONAL ELECTROTECHNICAL COMMISSION" and "IEC Certification Scheme for Explosive Atmospheres", with a note to visit www.iecex.com for rules and details. The certificate number is "IECEx BAS S0001" and the issue number is "0". The status is "Draft". There is also a field for "Certificate history:".

6 The IECEx latest initiative

Further to the new issue of [IEC 60079-14](#) (December 2007), and in particular annex F (Normative) "Knowledge, skills and competencies of 'Responsible Persons', 'Operatives' and 'designers'", there is a clear requirement from the standard to evaluate the competencies of the personnel who will intervene or design installation for Explosive atmosphere.

Similarly early discussions within the IECEx management committee (ExMC) have identified a need to expand the IECEx scheme to cover the assessment and eventual certification of persons competencies. To initiate this work ExMC has constitute a new working Group, namely WG12 with experts from various countries participating to the work (AU, CA, CN, CH, DE, FR, GB, NL & US).

The ExMC has noted a few key principles based on WG12 initial report:

- IECEx as a scheme should not be involved in delivering commercial training
- Such program would comply with the requirements of ISO/[IEC 17024](#)
- The principles of the IECEx Blue Print be maintained.

Based on these principles the objective of the IECEx Certification of Personnel Competencies Scheme will be to provide cross-industry competencies needed for work associated with equipment in hazardous area.



This certification of personnel competencies will be based on several documents (Rules & Operating Documents):

- **Pr IECEX 05:** IEC Scheme for Certification of Personnel Competency for Explosive Atmospheres - Rules and Procedures.
- **Pr OD0xx:** IEC Scheme for Certification of Personnel Competency for explosive Atmospheres - Guidance for making Application for Personnel Competencies.
- **Pr OD0xx:** IEC Scheme for Certification of Personnel Competency for explosive Atmospheres - ExCB Assessment Procedures for issuing and maintaining IECEX Certificates of Personnel Competency.
- **Pr OD0xx:** IEC Scheme for Certification of Personnel Competency for explosive Atmospheres - Competencies for working with electrical equipment for explosive atmospheres.

This certification scheme is intended only to ascertain the competency of personnel as it relates to working with equipment for use in or associated with explosive atmospheres. The competencies are intended to be applied as it relates to the specific work function of an individual person and includes (but not limited to) management awareness, design, selection of equipment, installation, inspection, maintenance and repair/overhaul. The scheme does not detail any training requirements and a certificate is issued for an individual on the basis of the assessment undertaken by an accredited ExCB.

A certificate of personnel competency can only be issued when the ExCB is satisfied by the compliance with the scheme requirement has been achieved and the person is declared competent according to the scope of work as given in the application.

This competence certificate will have a limited duration and the person will have to be reassessed every 3 years.

The certificate will be accessible through a secure access on the IECEX Website similarly to the other scheme.

Company personnel competencies being assessed through internal procedure sofar, this scheme could be of interest in a first step for all the contracted personnel working in Company Sites. This scheme will have to be further evaluated when issued.



Appendix 3 List of notified bodies under directive 94/9/EC

(Extract of European Union Website, dated 31/08/2011)

Creation Date : 31/08/2011

LIST OF BODIES NOTIFIED UNDER DIRECTIVE : 94/9/EC Equipment and protective systems intended for use in potentially explosive atmospheres				
Name and address of the notified bodies	Identification number	Responsible for the following products	Responsible for the following procedures or modules	Annexes or articles of the directives
AIB-VINÇOTTE INTERNATIONAL S.A. Business Class Kantorenpark Jan Olieslagerslan , 35 1800 Vilvoorde Belgium	0026	Equipment and protective systems intended for use in potentially explosive atmospheres	Product quality assurance Production quality assurance	Annex VII Annex IV
APRAGAZ A.S.B.L. Chaussée de Vilvorde, 156 1120 BRUXELLES Belgium	0029	Equipment and protective systems intended for use in potentially explosive atmospheres	Product quality assurance Unit verification Production quality assurance Conformity to type Product verification EC type-examination	Annex VII Annex IX Annex IV Annex VI Annex V Annex III
TÜV RHEINLAND INDUSTRIE SERVICE GMBH - TÜV Rheinland Group Am Grauen Stein D-51105 Köln Germany	0035	Equipment in equipment group II, categories 2 and 3 as follows - Electrical equipment - Machines - Internal combustion engines - flight conveyor equipment - Safety devices, controlling devices and regulating devices Equipment in equipment group II, category 1 as follows - Electrical equipment Non-electrical equipment with the types of protection: mechanically generated sparks, hot surfaces and electromagnetic waves - Machines - Components - Internal combustion engines	Product quality assurance Unit verification Conformity to type EC type-examination Unit verification Production quality assurance Product verification EC type-examination	Annex VII Annex IX Annex VI Annex III Annex IX Annex IV Annex V Annex III

Creation Date : 31/08/2011

LIST OF BODIES NOTIFIED UNDER DIRECTIVE : 94/9/EC Equipment and protective systems intended for use in potentially explosive atmospheres				
Name and address of the notified bodies	Identification number	Responsible for the following products	Responsible for the following procedures or modules	Annexes or articles of the directives
		- flight conveyor equipment - Safety devices, controlling devices and regulating devices		
		Equipment in equipment groups I and II, categories M1, M2, 1, 2 and 3, as follows - Components	Product quality assurance Unit verification	Annex VII Annex IX
		Equipment in equipment groups I and II, categories M1, M2, 1, 2 and 3, as follows - Safety devices, controlling devices and regulating devices	Internal control of production + receipt of technical file	Art. 8.1 (b) (ii)
		Components intended for use as parts in equipment group II, categories 1 and 2	Internal control of production + receipt of technical file Product quality assurance Unit verification Production quality assurance Conformity to type Product verification EC type-examination	Art. 8.1 (b) (ii) Annex VII Annex IX Annex IV Annex VI Annex V Annex III
Lloyd's Register Verification Limited 71 Fenchurch Street London EC3M 4BS United Kingdom	0038	Equipment group I, categories M1 and M2 Equipment group II, categories 1G, D and 2G, D excluding high voltage machines Equipment in the protection area "e", "d", "ia & ib", "m", "n", "o", "q" Protective systems Safety devices Non electrical equipment intended for use in potentially	Product quality assurance Unit verification Production quality assurance Product verification EC type-examination Internal control of production +	Annex VII Annex IX Annex IV Annex V Annex III Art. 8.1 (b) (ii)

Creation Date : 31/08/2011

LIST OF BODIES NOTIFIED UNDER DIRECTIVE : 94/9/EC Equipment and protective systems intended for use in potentially explosive atmospheres				
Name and address of the notified bodies	Identification number	Responsible for the following products	Responsible for the following procedures or modules	Annexes or articles of the directives
		explosive atmosphere with the protection by constructional safety „c“ In equipment group II, category 1 as follows - components and subassemblies - non electrical equipment - safety devices, controlling devices and regulating devices Non electrical equipment intended for use in potentially explosive atmosphere with the protection by constructional safety „c“ In equipment group II, category 2 as follows	receipt of technical file Product quality assurance Unit verification Production quality assurance Conformity to type Product verification EC type-examination	Annex VII Annex IX Annex IV Annex VI Annex V Annex III
IMQ ISTITUTO ITALIANO DEL MARCHIO DI QUALITÀ S.P.A. Via Quintiliano, 43 20138 - MILANO Italy	0051	Equipment and protective systems intended for use in potentially explosive atmospheres	Internal control of production + receipt of technical file Product quality assurance Unit verification Production quality assurance Conformity to type Product verification EC type-examination	Art. 8.1 (b) (ii) Annex VII Annex IX Annex IV Annex VI Annex V Annex III
ISTITUTO DI CERTIFICAZIONE EUROPEA PRODOTTI INDUSTRIALI S.P.A. Via Paolo Bellizzi, 29/33 29100 - PIACENZA Italy	0066	Equipment and protective systems intended for use in potentially explosive atmospheres	Internal control of production + receipt of technical file Product quality assurance Unit verification Production quality assurance Conformity to type Product verification	Art. 8.1 (b) (ii) Annex VII Annex IX Annex IV Annex VI Annex V Annex III

3 / 43

Creation Date : 31/08/2011

LIST OF BODIES NOTIFIED UNDER DIRECTIVE : 94/9/EC Equipment and protective systems intended for use in potentially explosive atmospheres				
Name and address of the notified bodies	Identification number	Responsible for the following products	Responsible for the following procedures or modules	Annexes or articles of the directives
			EC type-examination	
INSTITUT NATIONAL DE L'ENVIRONNEMENT INDUSTRIEL ET DES RISQUES Parc Technologique Alata BP 2 F60550 Vermeuil-en-Halatte France	0080	Equipment and protective systems intended for use in potentially explosive atmospheres	Product quality assurance Unit verification Production quality assurance Conformity to type Product verification EC type-examination	Annex VII Annex IX Annex IV Annex VI Annex V Annex III
LABORATOIRE CENTRAL DES INDUSTRIES ELECTRIQUES 33 avenue du Général Leclerc BP 8 F92266 Fontenay-aux-Roses cedex France	0081	Equipment and protective systems intended for use in potentially explosive atmospheres	Product quality assurance Unit verification Production quality assurance Conformity to type Product verification EC type-examination	Annex VII Annex IX Annex IV Annex VI Annex V Annex III
BSI Kitemark Court Davy Avenue Knowhill Milton Keynes MK5 8PP United Kingdom	0086	Equipment group II, categories 1G, D and 2G, D excluding high voltage machines Electrical equipment in the protection area: "e", "d", "f", "p", "n", "D" Non-electrical equipment in the protection area "c", "fr", "k" Protective systems Safety devices	Product quality assurance Unit verification Production quality assurance Conformity to type Product verification EC type-examination	Annex VII Annex IX Annex IV Annex VI Annex V Annex III
		Equipment group II, category 3 classes G and D excluding high voltage machines	Unit verification	Annex IX
ISTITUTO NAZIONALE PER L'ASSICURAZIONE CONTRO GLI INFORTUNI SUL LAVORO Via IV Novembre, 144	0100	Equipment in equipment groups I and II, categories M1, M2, 1, 2 and 3, as follows - Non electrical equipment	Internal control of production + receipt of technical file Product quality assurance	Art. 8.1 (b) (ii) Annex VII Annex IX

4 / 43

Creation Date : 31/08/2011

LIST OF BODIES NOTIFIED UNDER DIRECTIVE : 94/9/EC Equipment and protective systems intended for use in potentially explosive atmospheres				
Name and address of the notified bodies	Identification number	Responsible for the following products	Responsible for the following procedures or modules	Annexes or articles of the directives
00187 - ROMA Italy		- Components - Safety devices, controlling devices and regulating devices - Autonomous protective systems Equipment and protective systems intended for use in potentially explosive atmospheres Autonomous protective systems (with indication of explosion characteristics) in equipment group II, categories 1, 2 and 3 as follows Safety devices, controlling devices and regulating devices Non-electrical equipment with the types of protection: mechanically generated sparks, hot surfaces and electromagnetic waves Non-electrical equipment in the protection area "c", "fr", "k" Safety devices Equipment group I, categories M1 and M2 Non electrical equipment, group II, excluding internal combustion engines Non electrical components, group II non-electrical equipment - fr, d, c, b, k protective systems - venting, suppression, flame arresters, decoupling, explosion resistant enclosure Autonomous protective systems (with indication of explosion characteristics) Group I non-electrical	Unit verification Production quality assurance Conformity to type Product verification EC type-examination	Annex IV Annex VI Annex V Annex III

5 / 43

Creation Date : 31/08/2011

LIST OF BODIES NOTIFIED UNDER DIRECTIVE : 94/9/EC Equipment and protective systems intended for use in potentially explosive atmospheres				
Name and address of the notified bodies	Identification number	Responsible for the following products	Responsible for the following procedures or modules	Annexes or articles of the directives
		Group II dust non-electrical Group II gas non-electrical Non electrical equipment intended for use In potentially explosive atmosphere with the protection by constructional safety „c“ In equipment group II, category 1 as follows Non electrical equipment intended for use In potentially explosive atmosphere with the protection by constructional safety „c“ In equipment group II, category 2 as follows Non-electrical equipment in equipment groups I and II, categories 1, 2 and 3		
PHYSIKALISCH-TECHNISCHE BUNDESANSTALT- (PTB) Bundesallee, 100 38116 BRAUNSCHWEIG Germany	0102	Equipment in equipment group II, categories 2 and 3 as follows - Internal combustion engines - Electrical equipment - Non electrical equipment - Machines - Electrostatic spray equipment - Components - Safety devices, controlling devices and regulating devices Equipment in equipment group II, category 1 as follows - Electrical equipment - Machines - Non electrical equipment - Electrostatic spray equipment	Product quality assurance Unit verification Conformity to type EC type-examination	Annex VII Annex IX Annex VI Annex III
			Unit verification Production quality assurance Product verification EC type-examination	Annex IX Annex IV Annex V Annex III

6 / 43

Creation Date : 31/08/2011

LIST OF BODIES NOTIFIED UNDER DIRECTIVE : 94/9/EC Equipment and protective systems intended for use in potentially explosive atmospheres				
Name and address of the notified bodies	Identification number	Responsible for the following products	Responsible for the following procedures or modules	Annexes or articles of the directives
		- Components - Safety devices, controlling devices and regulating devices Autonomous protective systems (with indication of explosion characteristics) in equipment group II, categories 1, 2 and 3 as follows - Autonomous protective systems - Components - Safety devices, controlling devices and regulating devices		
TÜV SÜD Product Service GmbH Ridlerstraße 65 80339 MÜNCHEN Germany	0123	Autonomous protective systems (with indication of explosion characteristics) in equipment group II, categories 1G, 2G and 3G as follows - Electrical equipment - Non electrical equipment - Components - Safety devices, controlling devices and regulating devices - Machines	Product quality assurance Unit verification Production quality assurance Conformity to type Product verification EC type-examination	Annex VII Annex IX Annex IV Annex VI Annex V Annex III
DEKRA EXAM GmbH Zertifizierungsstelle Dinnendahlstrasse 9 D-44809 BOCHUM Germany	0158	Equipment in equipment groups I and II, categories M2, 2 and 3, as follows - Internal combustion engines - Gas measurement installations - Electrical equipment - Non electrical equipment - Machines	Product quality assurance Unit verification Conformity to type EC type-examination	Annex VII Annex IX Annex VI Annex III

Creation Date : 31/08/2011

LIST OF BODIES NOTIFIED UNDER DIRECTIVE : 94/9/EC Equipment and protective systems intended for use in potentially explosive atmospheres				
Name and address of the notified bodies	Identification number	Responsible for the following products	Responsible for the following procedures or modules	Annexes or articles of the directives
		- Components - Safety devices, controlling devices and regulating devices Equipment in equipment groups I and II, categories M1 and 1, as follows - Electrical equipment - Non electrical equipment - Components - Safety devices, controlling devices and regulating devices - Machines Autonomous protective systems (with indication of explosion characteristics) in equipment group II, categories 1G, 2G and 3G as follows - Autonomous protective systems - Components - Safety devices, controlling devices and regulating devices		
LABORATORIO OFICIAL JOSE MARIA DE MADARIAGA Calle Alenza , 2 28003 MADRID Spain	0163	Equipment in equipment groups I and II, categories M1 and 1, as follows Equipment in equipment groups I and II, categories M2, 2 and 3, as follows - Autonomous protective systems - Components	Product quality assurance Unit verification Production quality assurance Conformity to type Product verification EC type-examination	Annex VII Annex IX Annex IV Annex VI Annex V Annex III
DEKRA Certification B.V. Utrechtseweg 310, Postbus 5185 6802 ED ARNHEM	0344	Equipment in equipment group II, as follows - Electrical equipment	Product quality assurance Unit verification	Annex VII Annex IX

Creation Date : 31/08/2011

LIST OF BODIES NOTIFIED UNDER DIRECTIVE : 94/9/EC Equipment and protective systems intended for use in potentially explosive atmospheres				
Name and address of the notified bodies	Identification number	Responsible for the following products	Responsible for the following procedures or modules	Annexes or articles of the directives
Netherlands		- Non electrical equipment - Components - Safety devices, controlling devices and regulating devices Equipment in equipment group II, as follows - Equipment of group I as far testing procedures match with group II	Production quality assurance Conformity to type Product verification EC type-examination Internal control of production + receipt of technical file Product quality assurance Unit verification Production quality assurance Conformity to type Product verification EC type-examination	Annex IV Annex VI Annex V Annex III Art. 8.1 (b) (ii) Annex VII Annex IX Annex IV Annex VI Annex V Annex III
INTERTEK TESTING & CERTIFICATION LTD Intertek House, Cleeve Road Leatherhead, Surrey KT22 7SB United Kingdom	0359	Equipment groups I and II, categories M1 and 1 Equipment groups I and II, categories M2 and 2 Equipment group II, category 3 Protective systems Devices - Components	Product quality assurance Unit verification Production quality assurance Conformity to type Product verification EC type-examination	Annex VII Annex IX Annex IV Annex VI Annex V Annex III
DGUV Test Prüf- und Zertifizierungsstelle FACHAUSCHUß FLEISCHWIRTSCHAFT Lortzingstraße, 2 55127 MAINZ Germany	0391	Smoke generator for food treatment	Internal control of production + receipt of technical file Unit verification Conformity to type	Art. 8.1 (b) (ii) Annex IX Annex VI
TEKNOLOGISK INSTITUT - Certificering & Inspektion Kongsvang Allé 29 8000 Århus C Denmark	0396	Non electrical components, group II Non electrical equipment, group II, excluding internal combustion engines	Internal control of production + receipt of technical file Unit verification	Art. 8.1 (b) (ii) Annex IX Annex V

9 / 43

Creation Date : 31/08/2011

LIST OF BODIES NOTIFIED UNDER DIRECTIVE : 94/9/EC Equipment and protective systems intended for use in potentially explosive atmospheres				
Name and address of the notified bodies	Identification number	Responsible for the following products	Responsible for the following procedures or modules	Annexes or articles of the directives
		Safety devices, controlling devices and regulating devices for the above-mentioned equipment.	Product verification EC type-examination	Annex III
APAVE ITALIA CPM SRL Via Artigiani, 63 25040 - Brienno (BS) Italy	0398	Equipment and protective systems intended for use in potentially explosive atmospheres Protective systems for equipment in group II where the source of ignition is primarily electrical. Components which are parts of equipment in group II and of protective systems where the source of ignition is primarily electrical. Electrical equipment and components in equipment group II, category 2D and 3D in the protection area "p" Equipment in equipment-group II, in this case including equipment where the source of ignition is primarily electrical. Autonomous protective systems (with indication of explosion characteristics) in equipment group II, categories 1, 2 and 3 as follows Autonomous protective systems (with indication of explosion characteristics) in equipment group II, categories 1G, 2G and 3G as follows Equipment in equipment group II, category 1G, 2G and 3G in the protection areas "o", "e", "m", "l" and "g" Equipment in equipment group II, category 1G as follows Equipment in equipment group II, categories 2G and 3G as follows Equipment in equipment groups I and II, categories M1 and 1, as follows Equipment in equipment groups I and II, categories M1	Internal control of production + receipt of technical file Product quality assurance Unit verification Production quality assurance Conformity to type Product verification EC type-examination	Art. 8.1 (b) (ii) Annex VII Annex IX Annex IV Annex VI Annex V Annex III

10 / 43



Creation Date : 31/08/2011

LIST OF BODIES NOTIFIED UNDER DIRECTIVE : 94/9/EC Equipment and protective systems intended for use in potentially explosive atmospheres

Name and address of the notified bodies	Identification number	Responsible for the following products	Responsible for the following procedures or modules	Annexes or articles of the directives
		and 1G, as follows Equipment in equipment groups I and II, categories M1, M2, 1, 2 and 3, as follows Equipment in equipment groups I and II, categories M2, 2 and 3, as follows Equipment groups I and II, categories M1 and 1 Equipment groups I and II, categories M2 and 2 Equipment in equipment group II, as follows Equipment group II, category 3 Equipment in equipment group II, category 1 as follows Devices Equipment in equipment group II, categories 2 and 3 as follows Non electrical equipment Protective systems Electrical equipment Safety devices, controlling devices and regulating devices with risk of ignition from mechanically produced sparks Electrical equipment in the protection area "o", "m", "q", "e", "i", "p" Non-electrical equipment with the types of protection: mechanically generated sparks, hot surfaces and electromagnetic waves Non-electrical equipment in the protection area "c", "fr", "k" Safety devices		

11 / 43

Creation Date : 31/08/2011

LIST OF BODIES NOTIFIED UNDER DIRECTIVE : 94/9/EC Equipment and protective systems intended for use in potentially explosive atmospheres

Name and address of the notified bodies	Identification number	Responsible for the following products	Responsible for the following procedures or modules	Annexes or articles of the directives
		Equipment group I, categories M1 and M2 Equipment group II, categories 1G, D, 2G, D and 3G, D Non electrical components, group II Safety devices, controlling devices and regulating devices for the above-mentioned equipment. Electrical equipment in the protection area "o", "m", "q", "e", "i", "n", "p" Electrical equipment in the protection area "o", "m", "q", "e", "n", "p" Electrical equipment and protective systems intended for use in potentially explosive atmospheres in the protection area "o", "p" and "e" in equipment group II, category 1 as follows Electrical equipment and protective systems intended for use in potentially explosive atmospheres in the protection area "o", "p" and "e" in equipment group II, category 2 as follows Equipment group II, categories 1 and 2 Components covering protection concepts for non-electrical equipment - fr, d, c, b, k safety-related devices - 94/9/EC Annex II clause 1.5 Autonomous protective systems (with indication of explosion characteristics) Components Components intended for use as parts in equipment group I, categories M1 and M2 Components intended for use as parts in equipment		

12 / 43

Creation Date : 31/08/2011

LIST OF BODIES NOTIFIED UNDER DIRECTIVE : 94/9/EC Equipment and protective systems intended for use in potentially explosive atmospheres				
Name and address of the notified bodies	Identification number	Responsible for the following products	Responsible for the following procedures or modules	Annexes or articles of the directives
		group II, categories 1 and 2 Group I electrical Group I non-electrical Group II dust electrical Group II dust non-electrical Group II gas electrical Group II gas non-electrical		
SP Sveriges Tekniska Forskningsinstitut AB Box 857 501 15 BORAS Sweden	0402	All products excepted Internal combustion engines	Internal control of production + receipt of technical file Product quality assurance Unit verification Production quality assurance Conformity to type Product verification EC type-examination	Art. 8.1 (b) (ii) Annex VII Annex IX Annex IV Annex VI Annex V Annex III
TÜV AUSTRIA SERVICES GMBH Krugerstrasse 16 1015 WIEN Austria	0408	Equipment in equipment-group II, in this case including equipment where the source of ignition is primarily electrical.	Product quality assurance Unit verification Production quality assurance Conformity to type Product verification EC type-examination	Annex VII Annex IX Annex IV Annex VI Annex V Annex III
ICIM - ISTITUTO DI CERTIFICAZIONE INDUSTRIALE PER LA MECCANICA S.P.A. Piazza Don Enrico Mapelli, 75 20099 - Sesto San Giovanni (MI) Italy	0425	Equipment in equipment group II, categories 2G and 3G as follows - Non electrical equipment - Components	Internal control of production + receipt of technical file Product quality assurance Unit verification	Art. 8.1 (b) (ii) Annex VII Annex IX Annex VI

13 / 43

Creation Date : 31/08/2011

LIST OF BODIES NOTIFIED UNDER DIRECTIVE : 94/9/EC Equipment and protective systems intended for use in potentially explosive atmospheres				
Name and address of the notified bodies	Identification number	Responsible for the following products	Responsible for the following procedures or modules	Annexes or articles of the directives
		- Safety devices, controlling devices and regulating devices Electrical equipment in the protection area "o", "m", "q", "e", "i", "p" Equipment in equipment group II, category 1G as follows - Non electrical equipment - Components - Safety devices, controlling devices and regulating devices	Conformity to type EC type-examination Unit verification Production quality assurance Product verification EC type-examination	Annex III Annex IX Annex IV Annex V Annex III
NEMKO AS Gaustadalleen 30 - PO Box 73 Blindern 0314 OSLO Norway	0470	Electrical equipment - Non electrical equipment Non electrical equipment	Product quality assurance Production quality assurance Conformity to type Product verification EC type-examination Internal control of production + receipt of technical file Unit verification	Annex VII Annex IV Annex VI Annex V Annex III Art. 8.1 (b) (ii) Annex IX
RINA Services S.P.A. Via Corsica, 12 16128 - GENOVA Italy	0474	Equipment and protective systems intended for use in potentially explosive atmospheres Equipment in equipment groups I and II, categories M1 and 1, as follows Equipment in equipment groups I and II, categories M1, M2, 1, 2 and 3, as follows Equipment in equipment groups I and II, categories M2, 2 and 3, as follows	Unit verification Production quality assurance Product verification EC type-examination Internal control of production + receipt of technical file Product quality assurance Unit verification Conformity to type	Annex IX Annex IV Annex V Annex III Art. 8.1 (b) (ii) Annex VII Annex IX Annex VI Annex III

14 / 43



Appendix 3

Creation Date : 31/08/2011

LIST OF BODIES NOTIFIED UNDER DIRECTIVE : 94/9/EC Equipment and protective systems intended for use in potentially explosive atmospheres				
Name and address of the notified bodies	Identification number	Responsible for the following products	Responsible for the following procedures or modules	Annexes or articles of the directives
			EC type-examination	
		Equipment groups I and II, categories M1 and 1	Unit verification Production quality assurance Product verification EC type-examination	Annex IX Annex IV Annex V Annex III
		Equipment groups I and II, categories M2 and 2	Internal control of production + receipt of technical file Product quality assurance Unit verification Conformity to type EC type-examination	Art. 8.1 (b) (ii) Annex VII Annex IX Annex VI Annex III
		Electrical equipment	Unit verification Production quality assurance Product verification EC type-examination	Annex IX Annex IV Annex V Annex III
		Safety devices, controlling devices and regulating devices	Internal control of production + receipt of technical file Product quality assurance Unit verification Production quality assurance Conformity to type Product verification EC type-examination	Art. 8.1 (b) (ii) Annex VII Annex IX Annex IV Annex VI Annex V Annex III
		Electrical equipment in the protection area "o", "m", "q", "e", "i", "p"	Unit verification Production quality assurance	Annex IX Annex IV

Creation Date : 31/08/2011

15 / 43

LIST OF BODIES NOTIFIED UNDER DIRECTIVE : 94/9/EC Equipment and protective systems intended for use in potentially explosive atmospheres				
Name and address of the notified bodies	Identification number	Responsible for the following products	Responsible for the following procedures or modules	Annexes or articles of the directives
		Non-electrical equipment with the types of protection: mechanically generated sparks, hot surfaces and electromagnetic waves	Product verification EC type-examination	Annex V Annex III
		Electrical equipment in the protection area "o", "m", "q", "e", "i", "p", "d"	Internal control of production + receipt of technical file	Art. 8.1 (b) (ii)
		Electrical equipment in the protection area: "e", "d", "i", "p", "n", "D"	Product quality assurance Unit verification Production quality assurance Conformity to type Product verification EC type-examination	Annex IX Annex IV Annex VI Annex V Annex III
		Non-electrical equipment in the protection area "c", "fr", "k"	Unit verification Production quality assurance	Annex IX Annex IV
		Safety devices	Product verification	Annex V
		Equipment group I, categories M1 and M2	EC type-examination	Annex III
		Non electrical equipment, group II, excluding internal combustion engines Non electrical components, group II	Internal control of production + receipt of technical file Product quality assurance Unit verification Conformity to type EC type-examination	Art. 8.1 (b) (ii) Annex VII Annex IX Annex VI Annex III
		Electrical equipment in the protection area "o", "m", "q", "e", "i", "n", "p"	Internal control of production + receipt of technical file	Art. 8.1 (b) (ii)
		Electrical equipment in the protection area "o", "m", "q", "e", "n", "p"	Product quality assurance Unit verification	Annex IX Annex IV
		Electrical equipment and protective systems intended for	Production quality assurance	Annex VI

16 / 43

Creation Date : 31/08/2011

LIST OF BODIES NOTIFIED UNDER DIRECTIVE : 94/9/EC Equipment and protective systems intended for use in potentially explosive atmospheres				
Name and address of the notified bodies	Identification number	Responsible for the following products	Responsible for the following procedures or modules	Annexes or articles of the directives
		use in potentially explosive atmospheres in the protection area "o", "p" and "e" in equipment group II, category 1 as follows Electrical equipment and protective systems intended for use in potentially explosive atmospheres in the protection area "o", "p" and "e" in equipment group II, category 2 as follows non-electrical equipment - fr, d, c, b, k protective systems - venting, suppression, flame arresters, decoupling, explosion resistant enclosure	Conformity to type Product verification EC type-examination	Annex V Annex III
		Group I electrical Group I non-electrical	Unit verification Production quality assurance Product verification EC type-examination	Annex IX Annex IV Annex V Annex III
		Non electrical equipment intended for use in potentially explosive atmosphere with the protection by constructional safety „c“ in equipment group II, category 1 as follows Non electrical equipment intended for use in potentially explosive atmosphere with the protection by constructional safety „c“ in equipment group II, category 2 as follows	Internal control of production + receipt of technical file Product quality assurance Unit verification Conformity to type EC type-examination	Art. 8.1 (b) (ii) Annex VII Annex IX Annex VI Annex III
		Non-electrical equipment in equipment groups I and II, categories 1, 2 and 3	Internal control of production + receipt of technical file Product quality assurance Unit verification Production quality assurance	Art. 8.1 (b) (ii) Annex VII Annex IX Annex IV Annex VI

Creation Date : 31/08/2011

LIST OF BODIES NOTIFIED UNDER DIRECTIVE : 94/9/EC Equipment and protective systems intended for use in potentially explosive atmospheres				
Name and address of the notified bodies	Identification number	Responsible for the following products	Responsible for the following procedures or modules	Annexes or articles of the directives
			Conformity to type Product verification EC type-examination	Annex V Annex III
INSTITUT SCIENTIFIQUE DES SERVICES PUBLICS - SIEGE DE COLFONTAINE Zoning A. Schweitzer Rue de la Platinerie 7340 Colfontaine Belgium	0492	Equipment and protective systems intended for use in potentially explosive atmospheres	Product quality assurance Unit verification Production quality assurance Conformity to type Product verification EC type-examination	Annex VII Annex IX Annex IV Annex VI Annex V Annex III
DNV - MODULO UNO SCARL Via Colleoni, 9 20041 - Agrate Brianza (MI) Italy	0496	Equipment and protective systems intended for use in potentially explosive atmospheres	Internal control of production + receipt of technical file Product quality assurance Unit verification Production quality assurance Conformity to type Product verification EC type-examination	Art. 8.1 (b) (ii) Annex VII Annex IX Annex IV Annex VI Annex V Annex III
SOCIETE NATIONALE DE CERTIFICATION ET D'HOMOLOGATION S.A.R.L. (SNCH) 2a. Kalchesbruck L-1852 LUXEMBOURG Luxembourg	0499	Equipment and protective systems intended for use in potentially explosive atmospheres	Product quality assurance Unit verification Production quality assurance Conformity to type Product verification EC type-examination	Annex VII Annex IX Annex IV Annex VI Annex V Annex III
AIB-VINÇOTTE BELGIUM ASBL Business Class Kantorenpark J. Olieslagerslaan 35 BE-1800 VILVOORDE	0512	Equipment and protective systems intended for use in potentially explosive atmospheres	Unit verification EC type-examination	Annex IX Annex III

Creation Date : 31/08/2011

LIST OF BODIES NOTIFIED UNDER DIRECTIVE : 94/9/EC Equipment and protective systems intended for use in potentially explosive atmospheres				
Name and address of the notified bodies	Identification number	Responsible for the following products	Responsible for the following procedures or modules	Annexes or articles of the directives
Belgium				
SIRA CERTIFICATION SERVICE Rake Lane Eccleston, Chester, Cheshire CH4 9JN United Kingdom	0518	Equipment groups I and II, categories M1 and 1 Equipment groups I and II, categories M2 and 2 Equipment group II, category 3 Protective systems Devices - Components	Product quality assurance Unit verification Production quality assurance Conformity to type Product verification EC type-examination	Annex VII Annex IX Annex IV Annex VI Annex V Annex III
VTT Expert Services Oy PO Box 345 FI-33101 Tampere Finland	0537	All products excepted Internal combustion engines	Internal control of production + receipt of technical file Product quality assurance Unit verification Production quality assurance Conformity to type Product verification EC type-examination	Art. 8.1 (b) (ii) Annex VII Annex IX Annex IV Annex VI Annex V Annex III
UL INTERNATIONAL DEMKO A/S Lyskær, 8 - Postboks 514 2730 HERLEV Denmark	0539	Electrical equipment Protective systems Safety devices, controlling devices and regulating devices	Product quality assurance Unit verification Production quality assurance Conformity to type Product verification EC type-examination	Annex VII Annex IX Annex IV Annex VI Annex V Annex III
DET NORSKE VERITAS AS Veritasveien 1 1322 HOVIK Norway	0575	Equipment and protective systems intended for use in potentially explosive atmospheres	Internal control of production + receipt of technical file Product quality assurance Unit verification Production quality assurance	Art. 8.1 (b) (ii) Annex VII Annex IX Annex IV

19 / 43

Creation Date : 31/08/2011

LIST OF BODIES NOTIFIED UNDER DIRECTIVE : 94/9/EC Equipment and protective systems intended for use in potentially explosive atmospheres				
Name and address of the notified bodies	Identification number	Responsible for the following products	Responsible for the following procedures or modules	Annexes or articles of the directives
			Conformity to type Product verification EC type-examination	Annex VI Annex V Annex III
FORSCHUNGSGESELLSCHAFT FÜR ANGEWANDTE SYSTEMSICHERHEIT UND ARBEITSMEDIZIN mbH Dynamostraße 7-11 68165 MANNHEIM Germany	0588	Equipment in equipment group II, categories 2 and 3 as follows - Internal combustion engines - Non electrical equipment - Machines - Components - Safety devices, controlling devices and regulating devices Autonomous protective systems (with indication of explosion characteristics) in equipment group II, categories 1, 2 and 3 as follows - Components - Autonomous protective systems - Safety devices, controlling devices and regulating devices Equipment in equipment group II, category 1 as follows - Non electrical equipment - Components - Machines - Safety devices, controlling devices and regulating devices	Product quality assurance Unit verification Conformity to type EC type-examination Unit verification Production quality assurance Product verification EC type-examination	Annex VII Annex IX Annex VI Annex III Annex IX Annex IV Annex V Annex III
BUNDESANSTALT FÜR MATERIALFORSCHUNG UND PRÜFUNG (BAM) Unter den Eichen 87	0589	Equipment in equipment groups I and II, categories M2, 2 and 3, as follows	Product quality assurance Unit verification	Annex VII Annex IX

20 / 43

Creation Date : 31/08/2011

LIST OF BODIES NOTIFIED UNDER DIRECTIVE : 94/9/EC Equipment and protective systems intended for use in potentially explosive atmospheres				
Name and address of the notified bodies	Identification number	Responsible for the following products	Responsible for the following procedures or modules	Annexes or articles of the directives
D-12205 BERLIN Germany		- Non electrical equipment - Components - Gas measurement installations - Safety devices, controlling devices and regulating devices	Conformity to type EC type-examination	Annex VI Annex III
		Equipment in equipment groups I and II, categories M1 and 1, as follows - Non electrical equipment - Components - Safety devices, controlling devices and regulating devices with risk of ignition from mechanically produced sparks - Gas measurement installations Autonomous protective systems (with indication of explosion characteristics) in equipment group II, categories 1G, 2G and 3G as follows - Autonomous protective systems - flameproof valves - Components	Unit verification Production quality assurance Product verification EC type-examination	Annex IX Annex IV Annex V Annex III
IBEXU- INSTITUT FÜR SICHERHEITSTECHNIK GMBHINSTITUT AN DER TECHNISCHEN UNIVERSITÄT - BERGAKADEMIE FREIBERG Fuchsmühlenweg, 7 09599 Freiberg Germany	0637	Equipment in equipment groups I and II, categories M2, 2 and 3, as follows - Electrical equipment - Non electrical equipment - Internal combustion engines - Machines - Gas measurement installations	Product quality assurance Unit verification Conformity to type EC type-examination	Annex VII Annex IX Annex VI Annex III

21 / 43

Creation Date : 31/08/2011

LIST OF BODIES NOTIFIED UNDER DIRECTIVE : 94/9/EC Equipment and protective systems intended for use in potentially explosive atmospheres				
Name and address of the notified bodies	Identification number	Responsible for the following products	Responsible for the following procedures or modules	Annexes or articles of the directives
		- Components - Safety devices, controlling devices and regulating devices		
		Autonomous protective systems (with indication of explosion characteristics) in equipment group II, categories 1G, 2G and 3G as follows - Autonomous protective systems - Components - Safety devices, controlling devices and regulating devices Equipment in equipment groups I and II, categories M1, M2, 1, 2 and 3, as follows - Autonomous protective systems - Components - Safety devices, controlling devices and regulating devices Equipment in equipment groups I and II, categories M1 and 1, as follows - Electrical equipment - Non electrical equipment - Machines - Gas measurement installations - Components - Safety devices, controlling devices and regulating devices	Unit verification Production quality assurance Product verification EC type-examination	Annex IX Annex IV Annex V Annex III
CESI (CENTRO ELEOTECNICO SPERIMENTALE ITALIANO) GIACINTO MOTTA SPA Via Rubattino, 54 20134 - MILANO Italy	0722	Equipment and protective systems intended for use in potentially explosive atmospheres	Product quality assurance Unit verification Production quality assurance Conformity to type Product verification	Annex VII Annex IX Annex IV Annex VI Annex V

22 / 43

Creation Date : 31/08/2011

LIST OF BODIES NOTIFIED UNDER DIRECTIVE : 94/9/EC Equipment and protective systems intended for use in potentially explosive atmospheres				
Name and address of the notified bodies	Identification number	Responsible for the following products	Responsible for the following procedures or modules	Annexes or articles of the directives
ZELM EX PRÜF-UND ZERTIFIZIERUNGSSTELLE Siekgraben, 56 38124 BRAUNSCHWEIG Germany	0820	Equipment in equipment group II, category 1G, 2G and 3G in the protection areas "o", "e", "m", "l" and "g"	EC type-examination	Annex III
		Electrical equipment and components in equipment group II, category 2D and 3D in the protection area "p"	Product quality assurance Unit verification Production quality assurance Conformity to type Product verification EC type-examination	Annex VII Annex IX Annex IV Annex VI Annex V Annex III
		Non-electrical equipment with the types of protection: mechanically generated sparks, hot surfaces and electromagnetic waves	Product quality assurance Production quality assurance	Annex VII Annex IV
		Electrical equipment in the protection area "o", "m", "q", "e", "l", "p", "d"		
		Electrical equipment in the protection area: "e", "d", "l", "p", "n", "D"		
		Equipment group II, categories 1G, D, 2G, D and 3G, D		
		Safety devices, controlling devices and regulating devices for the above-mentioned equipment.		
		Components		
		Equipment in equipment groups I and II, categories M1, M2, 1, 2 and 3, as follows	Internal control of production + receipt of technical file	Art. 8.1 (b) (ii)
		- Components	Unit verification	Annex IX
		- Safety devices, controlling devices and regulating devices	Production quality assurance Conformity to type Product verification	Annex IV Annex VI Annex V
		Non electrical equipment	Unit verification	Annex IX
			EC type-examination	Annex III

23 / 43

Creation Date : 31/08/2011

LIST OF BODIES NOTIFIED UNDER DIRECTIVE : 94/9/EC Equipment and protective systems intended for use in potentially explosive atmospheres				
Name and address of the notified bodies	Identification number	Responsible for the following products	Responsible for the following procedures or modules	Annexes or articles of the directives
IRAC Global Ltd 100 Frobisher Business Park Leigh Sinton Road Malvern Worcestershire WR14 1BX United Kingdom	0891	Equipment in equipment groups I and II, categories M1, M2, 1, 2 and 3, as follows	Product quality assurance	Annex VII
		Protective systems	Unit verification	Annex IX
		Devices	Production quality assurance	Annex IV
		- Components	Conformity to type Product verification	Annex VI Annex V
			EC type-examination	Annex III
TUV ITALIA SRL Via Giosue Carducci, 125 - Edificio 23 20099 - Sesto San Giovanni (MI) Italy	0948	Equipment and protective systems intended for use in potentially explosive atmospheres	Internal control of production + receipt of technical file	Art. 8.1 (b) (ii)
		Protective systems for equipment in group II where the source of ignition is primarily electrical.	Product quality assurance	Annex VII
		All products excepted Internal combustion engines	Unit verification	Annex IX
		Components which are parts of equipment in group II and of protective systems where the source of ignition is primarily electrical.	Production quality assurance	Annex IV
		Electrical equipment and components in equipment group II, category 2D and 3D in the protection area "p"	Conformity to type	Annex VI
		Equipment in equipment-group II, in this case including equipment where the source of ignition is primarily electrical.	Product verification	Annex V
		Autonomous protective systems (with indication of explosion characteristics) in equipment group II, categories 1, 2 and 3 as follows	EC type-examination	Annex III
		Autonomous protective systems (with indication of explosion characteristics) in equipment group II, categories 1G, 2G and 3G as follows		
		Equipment in equipment group II, category 1G, 2G and 3G in the protection areas "o", "e", "m", "l" and "g"		

24 / 43

Creation Date : 31/08/2011

LIST OF BODIES NOTIFIED UNDER DIRECTIVE : 94/9/EC Equipment and protective systems intended for use in potentially explosive atmospheres				
Name and address of the notified bodies	Identification number	Responsible for the following products	Responsible for the following procedures or modules	Annexes or articles of the directives
		Equipment in equipment group II, category 1G as follows Equipment in equipment group II, categories 2G and 3G as follows Equipment in equipment groups I and II, categories M1 and 1, as follows Equipment in equipment groups I and II, categories M1 and 1G, as follows Equipment in equipment groups I and II, categories M1, M2, 1, 2 and 3, as follows Equipment in equipment groups I and II, categories M2, 2 and 3, as follows Equipment groups I and II, categories M1 and 1 Equipment groups I and II, categories M2 and 2 Equipment in equipment group II, as follows Equipment group II, category 3 Equipment in equipment group II, category 1 as follows Devices Equipment in equipment group II, categories 2 and 3 as follows Non electrical equipment Protective systems Electrical equipment Safety devices, controlling devices and regulating devices with risk of ignition from mechanically produced sparks Electrical equipment in the protection area "o", "m", "q", "e", "i", "p"		

25 / 43

Creation Date : 31/08/2011

LIST OF BODIES NOTIFIED UNDER DIRECTIVE : 94/9/EC Equipment and protective systems intended for use in potentially explosive atmospheres				
Name and address of the notified bodies	Identification number	Responsible for the following products	Responsible for the following procedures or modules	Annexes or articles of the directives
		Non-electrical equipment with the types of protection: mechanically generated sparks, hot surfaces and electromagnetic waves Electrical equipment in the protection area "o", "m", "q", "e", "i", "p", "d" Electrical equipment in the protection area: "e", "d", "i", "p", "n", "tD" Non-electrical equipment in the protection area "c", "fr", "k" Safety devices Equipment group II, categories 1G, D and 2G, D excluding high voltage machines Equipment group II, category 3 classes G and D excluding high voltage machines Equipment in the protection area "e", "d", "ia & ib", "n", "o", "q" Equipment group I, categories M1 and M2 Equipment group II, categories 1G, D, 2G, D and 3G, D, excluding high voltage machines Equipment group II, categories 1G, D, 2G, D and 3G, D Non electrical equipment, group II, excluding internal combustion engines Non electrical components, group II Safety devices, controlling devices and regulating devices for the above-mentioned equipment. Electrical equipment in the protection area "o", "m", "q", "e", "i", "n", "p"		

26 / 43

Creation Date : 31/08/2011

LIST OF BODIES NOTIFIED UNDER DIRECTIVE : 94/9/EC Equipment and protective systems intended for use in potentially explosive atmospheres				
Name and address of the notified bodies	Identification number	Responsible for the following products	Responsible for the following procedures or modules	Annexes or articles of the directives
		Electrical equipment in the protection area "o", "m", "q", "e", "n", "p" Electrical equipment and protective systems intended for use in potentially explosive atmospheres in the protection area "o", "p" and "e" in equipment group II, category 1 as follows Electrical equipment and protective systems intended for use in potentially explosive atmospheres in the protection area "o", "p" and "e" in equipment group II, category 2 as follows Smoke generator for food treatment Equipment in the protection area "e", "d", "ia & ib", "m", "n", "o", "q" Equipment group II, categories 1 and 2 Components covering protection concepts for electrical equipment - 'd', 'e', 'f', 'm', 'n', 'o', 'p', 'q', 'd', 'pD', 'iD', 'mD' non-electrical equipment - fr, d, c, b, k protective systems - venting, suppression, flame arresters, decoupling, explosion resistant enclosure safety-related devices - 94/9/EC Annex II clause 1.5 Autonomous protective systems (with indication of explosion characteristics) Components intended for use as parts in equipment group I, categories M1 and M2 Components intended for use as parts in equipment group II, categories 1 and 2		

27/43

Creation Date : 31/08/2011

LIST OF BODIES NOTIFIED UNDER DIRECTIVE : 94/9/EC Equipment and protective systems intended for use in potentially explosive atmospheres				
Name and address of the notified bodies	Identification number	Responsible for the following products	Responsible for the following procedures or modules	Annexes or articles of the directives
		Group I electrical Group I non-electrical Group II dust electrical Group II dust non-electrical Group II gas electrical Group II gas non-electrical		
FYZIKALNE TECHNICKY ZKUSEBNI USTAV S.P. Pikartská 7 716 07 OSTRAVA - RADVANICE Czech Republic	1026	Equipment and protective systems intended for use in potentially explosive atmospheres	Product quality assurance Unit verification Production quality assurance Conformity to type Product verification EC type-examination	Annex VII Annex IX Annex IV Annex VI Annex V Annex III
CONSORZIO EUROPEO CERTIFICAZIONE - CEC Via Pisacane, 46 20025 - Legnano (MI) Italy	1131	Equipment and protective systems intended for use in potentially explosive atmospheres	Internal control of production + receipt of technical file Product quality assurance Unit verification Production quality assurance Conformity to type Product verification EC type-examination	Art. 8.1 (b) (ii) Annex VII Annex IX Annex IV Annex VI Annex V Annex III
BASEEFA LIMITED Rockhead Business Park Staden Lane SK17 9RZ BUXTON United Kingdom	1180	Equipment in equipment groups I and II, categories M1, M2, 1, 2 and 3, as follows Protective systems Devices - Components	Product quality assurance Unit verification Production quality assurance Conformity to type Product verification	Annex VII Annex IX Annex IV Annex VI Annex V

28/43

Creation Date : 31/08/2011

LIST OF BODIES NOTIFIED UNDER DIRECTIVE : 94/9/EC Equipment and protective systems intended for use in potentially explosive atmospheres				
Name and address of the notified bodies	Identification number	Responsible for the following products	Responsible for the following procedures or modules	Annexes or articles of the directives
QS Schaffhausen AG Wiesengasse 20 CH-8222 Beringen Switzerland	1252	Equipment group II, categories 1G, D, 2G, D and 3G, D - Autonomous protective systems - Components - Safety devices - Controlling devices and regulating devices where the source of ignition is primarily electrical	EC type-examination Internal control of production + receipt of technical file Product quality assurance Unit verification Production quality assurance Conformity to type Product verification EC type-examination	Annex III Art. 8.1 (b) (ii) Annex VII Annex IX Annex IV Annex VI Annex V Annex III
QS Zürich AG Postfach 6335 CH-8050 Zürich Switzerland	1254	Equipment group II, categories 1G, D, 2G, D and 3G, D - Autonomous protective systems - Components Safety devices Protective systems for equipment in group II where the source of ignition is primarily electrical.	Internal control of production + receipt of technical file Product quality assurance Unit verification Production quality assurance Conformity to type Product verification EC type-examination	Art. 8.1 (b) (ii) Annex VII Annex IX Annex IV Annex VI Annex V Annex III
ELECTROSUISSE SEV Luppenstrasse, 1 8320 FEHRALTORF Switzerland	1258	Equipment and protective systems intended for use in potentially explosive atmospheres	Internal control of production + receipt of technical file Product quality assurance Unit verification Production quality assurance Conformity to type Product verification EC type-examination	Art. 8.1 (b) (ii) Annex VII Annex IX Annex IV Annex VI Annex V Annex III
EVPU a.s.	1293	Equipment and protective systems intended for use in	Product quality assurance	Annex VII

29 / 43

Creation Date : 31/08/2011

LIST OF BODIES NOTIFIED UNDER DIRECTIVE : 94/9/EC Equipment and protective systems intended for use in potentially explosive atmospheres				
Name and address of the notified bodies	Identification number	Responsible for the following products	Responsible for the following procedures or modules	Annexes or articles of the directives
Trencianska 19 018 51 NOVA DUBNICA Slovakia		potentially explosive atmospheres	Unit verification Production quality assurance Conformity to type Product verification EC type-examination	Annex IX Annex IV Annex VI Annex V Annex III
SLOVENIAN INSTITUTE OF QUALITY AND METROLOGY - SIQ Trzaska cesta 2 1000 LJUBLJANA Slovenia	1304	Equipment and protective systems intended for use in potentially explosive atmospheres	Internal control of production + receipt of technical file Product quality assurance Unit verification Production quality assurance Conformity to type Product verification EC type-examination	Art. 8.1 (b) (ii) Annex VII Annex IX Annex IV Annex VI Annex V Annex III
Technická inspekcia a.s. Trnavská cesta 56 821 01 BRATISLAVA Slovakia	1354	Equipment and protective systems intended for use in potentially explosive atmospheres	Product quality assurance Unit verification Production quality assurance Conformity to type Product verification EC type-examination	Annex VII Annex IX Annex IV Annex VI Annex V Annex III
BUREAU VERITAS ITALIA S.P.A. Viale Monza, 261 20126 - MILANO Italy	1370	Equipment in equipment groups I and II, categories M2, 2 and 3, as follows Electrical equipment in the protection area "o", "m", "q", "e", "i", "p", "d" Electrical equipment in the protection area "o", "m", "q", "e", "i", "n", "p" - Non electrical equipment	Internal control of production + receipt of technical file Product quality assurance Unit verification Production quality assurance Conformity to type	Art. 8.1 (b) (ii) Annex VII Annex IX Annex IV Annex VI Annex V

30 / 43

Creation Date : 31/08/2011

LIST OF BODIES NOTIFIED UNDER DIRECTIVE : 94/9/EC Equipment and protective systems intended for use in potentially explosive atmospheres				
Name and address of the notified bodies	Identification number	Responsible for the following products	Responsible for the following procedures or modules	Annexes or articles of the directives
		- Components - Safety devices, controlling devices and regulating devices - Autonomous protective systems Equipment in equipment groups I and II, categories M1 and 1, as follows - Electrical equipment - Non electrical equipment - Components - Safety devices, controlling devices and regulating devices - Autonomous protective systems	Product verification EC type-examination	Annex III
EXVA ROBBANASBIZTOS BEREENDEZESEK VIZSGALO ALLOMASA KFT. Mikoviny S. u. 2-4 1037 Budapest Hungary	1418	Equipment in equipment groups I and II, categories M2, 2 and 3, as follows - Internal combustion engines - Gas measurement installations - Electrical equipment - Non electrical equipment - Machines - Components - Safety devices, controlling devices and regulating devices	Product quality assurance Unit verification Conformity to type EC type-examination	Annex VII Annex IX Annex VI Annex III
		Equipment in equipment groups I and II, categories M1 and 1, as follows - Electrical equipment - Non electrical equipment	Unit verification Production quality assurance Product verification EC type-examination	Annex IX Annex IV Annex V Annex III

31 / 43

Creation Date : 31/08/2011

LIST OF BODIES NOTIFIED UNDER DIRECTIVE : 94/9/EC Equipment and protective systems intended for use in potentially explosive atmospheres				
Name and address of the notified bodies	Identification number	Responsible for the following products	Responsible for the following procedures or modules	Annexes or articles of the directives
		- Components - Safety devices, controlling devices and regulating devices - Machines Autonomous protective systems (with indication of explosion characteristics) in equipment group II, categories 1G, 2G and 3G as follows - Autonomous protective systems - Components - Safety devices, controlling devices and regulating devices Equipment in equipment groups I and II, categories M1 and 1, as follows - Electrical equipment for use in the presence of combustible dust		
		Equipment in equipment groups I and II, categories M2, 2 and 3, as follows - Cap lamps for mines susceptible to fire dump - Electrical equipment for use in the presence of combustible dust - Electrostatic spraying equipment using flammable substances	Product quality assurance Unit verification Conformity to type EC type-examination	Annex VII Annex IX Annex VI Annex III
URZAD DOZORU TECHNICZNEGO ul. Szczesliwicka 34 02-353 Warszawa Poland	1433	Electrical equipment and protective systems intended for use in potentially explosive atmospheres in the protection area "o", "p" and "e" in equipment group II, category 2 as follows - Electrical equipment	Internal control of production + receipt of technical file Product quality assurance Unit verification Conformity to type	Art. 8.1 (b) (ii) Annex VII Annex IX Annex VI Annex III

32 / 43

Creation Date : 31/08/2011

LIST OF BODIES NOTIFIED UNDER DIRECTIVE : 94/9/EC Equipment and protective systems intended for use in potentially explosive atmospheres				
Name and address of the notified bodies	Identification number	Responsible for the following products	Responsible for the following procedures or modules	Annexes or articles of the directives
		- Components and subassemblies - Safety devices, controlling devices and regulating devices - Protective systems	EC type-examination	
		Electrical equipment and protective systems intended for use in potentially explosive atmospheres in the protection area "o", "p" and "s" in equipment group II, category 1 as follows - Electrical equipment - Components and subassemblies - Safety devices, controlling devices and regulating devices - Protective systems Non electrical equipment intended for use in potentially explosive atmosphere with the protection by constructional safety „c” in equipment group II, category 1 as follows - components and subassemblies - non electrical equipment - safety devices, controlling devices and regulating devices	Unit verification Production quality assurance Product verification EC type-examination	Annex IX Annex IV Annex V Annex III
		Non electrical equipment intended for use in potentially explosive atmosphere with the protection by constructional safety „c” in equipment group II, category 2 as follows - non electrical equipment - components and subassemblies	Internal control of production + receipt of technical file Unit verification	Art. 8.1 (b) (ii) Annex IX

33 / 43

Creation Date : 31/08/2011

LIST OF BODIES NOTIFIED UNDER DIRECTIVE : 94/9/EC Equipment and protective systems intended for use in potentially explosive atmospheres				
Name and address of the notified bodies	Identification number	Responsible for the following products	Responsible for the following procedures or modules	Annexes or articles of the directives
		- safety devices, controlling devices and regulating devices		
GŁÓWNY INSTYTUT GÓRNICZWA Plac Gwarków 1 40 166 KATOWICE Poland	1453	Equipment in equipment groups I and II, categories M1 and 1, as follows - Electrical equipment - Non electrical equipment - Components - Safety devices, controlling devices and regulating devices Protective systems Equipment in equipment groups I and II, categories M2, 2 and 3, as follows - Electrical equipment - Non electrical equipment - Components - Safety devices, controlling devices and regulating devices	Product quality assurance Unit verification Production quality assurance Conformity to type Product verification EC type-examination	Annex VII Annex IX Annex IV Annex VI Annex V Annex III
INSTYTUT TECHNIKI GÓRNICZEJ KOMAG ul. Pszczyńska 37 44-101 GLIWICE Poland	1456	Equipment in equipment groups I and II, categories M1 and 1, as follows - Electrical equipment - Non electrical equipment - Components and subassemblies - Safety devices, controlling devices and regulating devices - Protective systems Equipment in equipment groups I and II, categories M2,	Unit verification Production quality assurance Product verification EC type-examination	Annex IX Annex IV Annex V Annex III
		Equipment in equipment groups I and II, categories M2,	Internal control of production +	Art. 8.1 (b) (ii)

34 / 43

Creation Date : 31/08/2011

LIST OF BODIES NOTIFIED UNDER DIRECTIVE : 94/9/EC Equipment and protective systems intended for use in potentially explosive atmospheres				
Name and address of the notified bodies	Identification number	Responsible for the following products	Responsible for the following procedures or modules	Annexes or articles of the directives
		2 and 3, as follows - Safety devices, controlling devices and regulating devices - Protective systems - Electrical equipment - Non electrical equipment - Components and subassemblies	receipt of technical file Unit verification Conformity to type EC type-examination	Annex IX Annex VI Annex III
		Equipment groups I and II, categories M2 and 2 - components and subassemblies - electrical equipment - non electrical equipment - protective systems - safety devices, controlling devices and regulating devices	Product quality assurance	Annex VII
OSRODEK BADAN ATESTACJI I CERTYFIKACJI OBAC SP. Z O.O. ul. Jasna 31 44-122 GLIWICE Poland	1461	Equipment in equipment groups I and II, categories M1 and 1, as follows - Electrical equipment - Non electrical equipment - Components - Safety devices, controlling devices and regulating devices	Unit verification Production quality assurance Product verification EC type-examination	Annex IX Annex IV Annex V Annex III
		Equipment in equipment groups I and II, categories M2, 2 and 3, as follows - Electrical equipment - Non electrical equipment - Components	Internal control of production + receipt of technical file Product quality assurance Unit verification Conformity to type	Art. 8.1 (b) (ii) Annex VII Annex IX Annex VI Annex III

33 / 43

Creation Date : 31/08/2011

LIST OF BODIES NOTIFIED UNDER DIRECTIVE : 94/9/EC Equipment and protective systems intended for use in potentially explosive atmospheres				
Name and address of the notified bodies	Identification number	Responsible for the following products	Responsible for the following procedures or modules	Annexes or articles of the directives
		- Safety devices, controlling devices and regulating devices	EC type-examination	
		Equipment in equipment groups I and II, categories M1 and 1, as follows - Protective systems	Unit verification Production quality assurance Product verification EC type-examination	Annex IX Annex IV Annex V Annex III
		Equipment in equipment groups I and II, categories M2, 2 and 3, as follows - Protective systems	Internal control of production + receipt of technical file Product quality assurance Unit verification Production quality assurance EC type-examination	Art. 8.1 (b) (ii) Annex VII Annex IX Annex IV Annex III
INOVA CENTRUM INNOWACJI TECHNICZNYCH SP. Z O.O. Ul. Marii Skłodowskiej - Curie 183 59-301 LUBIN Poland	1547	Equipment group I, categories M1 and M2 - Electrical equipment - Internal combustion engines	Conformity to type EC type-examination	Annex VI Annex III
SGS-TÜV GMBH Am TÜV 1 86280 SULZBACH Germany	1637	Equipment in equipment group II, category 1 as follows - Non electrical equipment	Product verification	Annex V
		Equipment in equipment group II, category 1 as follows - Components - Machines	Unit verification	Annex IX
		Equipment in equipment group II, category 1 as follows - Electrical equipment	Production quality assurance EC type-examination	Annex IV Annex III
		Equipment in equipment group II, category 1 as follows	Internal control of production +	Art. 8.1 (b) (ii)

36 / 43

Creation Date : 31/08/2011

LIST OF BODIES NOTIFIED UNDER DIRECTIVE : 94/9/EC Equipment and protective systems intended for use in potentially explosive atmospheres				
Name and address of the notified bodies	Identification number	Responsible for the following products	Responsible for the following procedures or modules	Annexes or articles of the directives
		- Safety devices, controlling devices and regulating devices	receipt of technical file Product quality assurance Unit verification Production quality assurance Conformity to type Product verification EC type-examination	Annex VII Annex IX Annex IV Annex VI Annex V Annex III
		Equipment in equipment group II, categories 2 and 3 as follows - Non electrical equipment	Internal control of production + receipt of technical file Production quality assurance	Art. 8.1 (b) (ii) Annex IV
		Equipment in equipment group II, categories 2 and 3 as follows - Components	Internal control of production + receipt of technical file Unit verification	Art. 8.1 (b) (ii) Annex IX
		Equipment in equipment group II, categories 2 and 3 as follows - Machines	Internal control of production + receipt of technical file Product verification	Art. 8.1 (b) (ii) Annex V
		Equipment in equipment group II, categories 2 and 3 as follows - Electrical equipment	Internal control of production + receipt of technical file Conformity to type	Art. 8.1 (b) (ii) Annex VI
		Equipment in equipment group II, categories 2 and 3 as follows - Safety devices, controlling devices and regulating devices	Internal control of production + receipt of technical file Unit verification	Art. 8.1 (b) (ii) Annex IX
FM Approvals Ltd. 1 Windsor Dials Windsor, Berkshire, SL4 1RS United Kingdom	1725	Equipment group I, categories M1 and M2 Equipment group II, categories 1 and 2 Equipment group II, category 3	Internal control of production + receipt of technical file Product quality assurance	Art. 8.1 (b) (ii) Annex VII Annex IX

37 / 43

Creation Date : 31/08/2011

LIST OF BODIES NOTIFIED UNDER DIRECTIVE : 94/9/EC Equipment and protective systems intended for use in potentially explosive atmospheres				
Name and address of the notified bodies	Identification number	Responsible for the following products	Responsible for the following procedures or modules	Annexes or articles of the directives
		- Autonomous protective systems	Unit verification	Annex IV
		Safety devices Components covering protection concepts for electrical equipment - 'd', 'e', 'f', 'm', 'n', 'o', 'p', 'q', 'r', 's', 't', 'u', 'v', 'w', 'x', 'y', 'z', 'aa', 'ab', 'ac', 'ad', 'ae', 'af', 'ag', 'ah', 'ai', 'aj', 'ak', 'al', 'am', 'an', 'ao', 'ap', 'aq', 'ar', 'as', 'at', 'au', 'av', 'aw', 'ax', 'ay', 'az', 'ba', 'bb', 'bc', 'bd', 'be', 'bf', 'bg', 'bh', 'bi', 'bj', 'bk', 'bl', 'bm', 'bn', 'bo', 'bp', 'bq', 'br', 'bs', 'bt', 'bu', 'bv', 'bw', 'bx', 'by', 'bz', 'ca', 'cb', 'cc', 'cd', 'ce', 'cf', 'cg', 'ch', 'ci', 'cj', 'ck', 'cl', 'cm', 'cn', 'co', 'cp', 'cq', 'cr', 'cs', 'ct', 'cu', 'cv', 'cw', 'cx', 'cy', 'cz', 'da', 'db', 'dc', 'dd', 'de', 'df', 'dg', 'dh', 'di', 'dj', 'dk', 'dl', 'dm', 'dn', 'do', 'dp', 'dq', 'dr', 'ds', 'dt', 'du', 'dv', 'dw', 'dx', 'dy', 'dz', 'ea', 'eb', 'ec', 'ed', 'ee', 'ef', 'eg', 'eh', 'ei', 'ej', 'ek', 'el', 'em', 'en', 'eo', 'ep', 'eq', 'er', 'es', 'et', 'eu', 'ev', 'ew', 'ex', 'ey', 'ez', 'fa', 'fb', 'fc', 'fd', 'fe', 'ff', 'fg', 'fh', 'fi', 'fj', 'fk', 'fl', 'fm', 'fn', 'fo', 'fp', 'fq', 'fr', 'fs', 'ft', 'fu', 'fv', 'fw', 'fx', 'fy', 'fz', 'ga', 'gb', 'gc', 'gd', 'ge', 'gf', 'gg', 'gh', 'gi', 'gj', 'gk', 'gl', 'gm', 'gn', 'go', 'gp', 'gq', 'gr', 'gs', 'gt', 'gu', 'gv', 'gw', 'gx', 'gy', 'gz', 'ha', 'hb', 'hc', 'hd', 'he', 'hf', 'hg', 'hh', 'hi', 'hj', 'hk', 'hl', 'hm', 'hn', 'ho', 'hp', 'hq', 'hr', 'hs', 'ht', 'hu', 'hv', 'hw', 'hx', 'hy', 'hz', 'ia', 'ib', 'ic', 'id', 'ie', 'if', 'ig', 'ih', 'ii', 'ij', 'ik', 'il', 'im', 'in', 'io', 'ip', 'iq', 'ir', 'is', 'it', 'iu', 'iv', 'iw', 'ix', 'iy', 'iz', 'ja', 'jb', 'jc', 'jd', 'je', 'jf', 'jg', 'jh', 'ji', 'jj', 'jk', 'jl', 'jm', 'jn', 'jo', 'jp', 'jq', 'jr', 'js', 'jt', 'ju', 'jv', 'jw', 'jx', 'jy', 'jz', 'ka', 'kb', 'kc', 'kd', 'ke', 'kf', 'kg', 'kh', 'ki', 'kj', 'kk', 'kl', 'km', 'kn', 'ko', 'kp', 'kq', 'kr', 'ks', 'kt', 'ku', 'kv', 'kw', 'kx', 'ky', 'kz', 'la', 'lb', 'lc', 'ld', 'le', 'lf', 'lg', 'lh', 'li', 'lj', 'lk', 'll', 'lm', 'ln', 'lo', 'lp', 'lq', 'lr', 'ls', 'lt', 'lu', 'lv', 'lw', 'lx', 'ly', 'lz', 'ma', 'mb', 'mc', 'md', 'me', 'mf', 'mg', 'mh', 'mi', 'mj', 'mk', 'ml', 'mn', 'mo', 'mp', 'mq', 'mr', 'ms', 'mt', 'mu', 'mv', 'mw', 'mx', 'my', 'mz', 'na', 'nb', 'nc', 'nd', 'ne', 'nf', 'ng', 'nh', 'ni', 'nj', 'nk', 'nl', 'nm', 'no', 'np', 'nq', 'nr', 'ns', 'nt', 'nu', 'nv', 'nw', 'nx', 'ny', 'nz', 'oa', 'ob', 'oc', 'od', 'oe', 'of', 'og', 'oh', 'oi', 'oj', 'ok', 'ol', 'om', 'on', 'oo', 'op', 'oq', 'or', 'os', 'ot', 'ou', 'ov', 'ow', 'ox', 'oy', 'oz', 'pa', 'pb', 'pc', 'pd', 'pe', 'pf', 'pg', 'ph', 'pi', 'pj', 'pk', 'pl', 'pm', 'pn', 'po', 'pp', 'pq', 'pr', 'ps', 'pt', 'pu', 'pv', 'pw', 'px', 'py', 'pz', 'qa', 'qb', 'qc', 'qd', 'qe', 'qf', 'qg', 'qh', 'qi', 'qj', 'qk', 'ql', 'qm', 'qn', 'qo', 'qp', 'qq', 'qr', 'qs', 'qt', 'qu', 'qv', 'qw', 'qx', 'qy', 'qz', 'ra', 'rb', 'rc', 'rd', 're', 'rf', 'rg', 'rh', 'ri', 'rj', 'rk', 'rl', 'rm', 'rn', 'ro', 'rp', 'rq', 'rr', 'rs', 'rt', 'ru', 'rv', 'rw', 'rx', 'ry', 'rz', 'sa', 'sb', 'sc', 'sd', 'se', 'sf', 'sg', 'sh', 'si', 'sj', 'sk', 'sl', 'sm', 'sn', 'so', 'sp', 'sq', 'sr', 'ss', 'st', 'su', 'sv', 'sw', 'sx', 'sy', 'sz', 'ta', 'tb', 'tc', 'td', 'te', 'tf', 'tg', 'th', 'ti', 'tj', 'tk', 'tl', 'tm', 'tn', 'to', 'tp', 'tq', 'tr', 'ts', 'tt', 'tu', 'tv', 'tw', 'tx', 'ty', 'tz', 'ua', 'ub', 'uc', 'ud', 'ue', 'uf', 'ug', 'uh', 'ui', 'uj', 'uk', 'ul', 'um', 'un', 'uo', 'up', 'uq', 'ur', 'us', 'ut', 'uu', 'uv', 'uw', 'ux', 'uy', 'uz', 'va', 'vb', 'vc', 'vd', 've', 'vf', 'vg', 'vh', 'vi', 'vj', 'vk', 'vl', 'vm', 'vn', 'vo', 'vp', 'vq', 'vr', 'vs', 'vt', 'vu', 'vv', 'vw', 'vx', 'vy', 'vz', 'wa', 'wb', 'wc', 'wd', 'we', 'wf', 'wg', 'wh', 'wi', 'wj', 'wk', 'wl', 'wm', 'wn', 'wo', 'wp', 'wq', 'wr', 'ws', 'wt', 'wu', 'wv', 'ww', 'wx', 'wy', 'wz', 'xa', 'xb', 'xc', 'xd', 'xe', 'xf', 'xg', 'xh', 'xi', 'xj', 'xk', 'xl', 'xm', 'xn', 'xo', 'xp', 'xq', 'xr', 'xs', 'xt', 'xu', 'xv', 'xw', 'xx', 'xy', 'xz', 'ya', 'yb', 'yc', 'yd', 'ye', 'yf', 'yg', 'yh', 'yi', 'yj', 'yk', 'yl', 'ym', 'yn', 'yo', 'yp', 'yq', 'yr', 'ys', 'yt', 'yu', 'yv', 'yw', 'yx', 'yy', 'yz', 'za', 'zb', 'zc', 'zd', 'ze', 'zf', 'zg', 'zh', 'zi', 'zj', 'zk', 'zl', 'zm', 'zn', 'zo', 'zp', 'zq', 'zr', 'zs', 'zt', 'zu', 'zv', 'zw', 'zx', 'zy', 'zz'	Unit verification Production quality assurance Conformity to type Product verification EC type-examination	Annex IV Annex VI Annex V Annex III
		non-electrical equipment - fr, d, c, b, k protective systems - venting, suppression, flame arresters, decoupling, explosion resistant enclosure safety-related devices - 94/9/EC Annex II clause 1.5		
Institutul National de Cercetare-Dezvoltare pentru Securitate Miniera si Protectie Antiexploziva strada General Vasile Milea 32-34, judetul Hunedoara 332047 Petrosani Romania	1809	Equipment group II, category 3	Unit verification	Annex IX
		Safety devices, controlling devices and regulating devices	Internal control of production + receipt of technical file Product quality assurance Unit verification Production quality assurance Conformity to type Product verification EC type-examination	Art. 8.1 (b) (ii) Annex VII Annex IX Annex IV Annex VI Annex V Annex III
		Autonomous protective systems (with indication of explosion characteristics)	Unit verification Production quality assurance Product verification EC type-examination	Annex IX Annex IV Annex V Annex III

38 / 43

Creation Date : 31/08/2011

LIST OF BODIES NOTIFIED UNDER DIRECTIVE : 94/9/EC Equipment and protective systems intended for use in potentially explosive atmospheres				
Name and address of the notified bodies	Identification number	Responsible for the following products	Responsible for the following procedures or modules	Annexes or articles of the directives
		Equipment group I, categories M1 and M2	Internal control of production + receipt of technical file	Art. 8.1 (b) (ii)
		Equipment group II, categories 1 and 2	Product quality assurance	Annex VII
		Components intended for use as parts in equipment group I, categories M1 and M2	Unit verification	Annex IX
		Components intended for use as parts in equipment group II, categories 1 and 2	Production quality assurance	Annex IV
			Conformity to type	Annex VI
			Product verification	Annex V
			EC type-examination	Annex III
"MINPROEKT" JSC - Division "Scientific and Research Activity" "MINPROEKT" JSC Division "Scientific and Research Activity" 2351 Dragichevo Bulgaria	1877	Equipment in equipment groups I and II, categories M2, 2 and 3, as follows	Unit verification	Annex IX
		- Non electrical equipment	Production quality assurance	Annex IV
		- Protective systems	Conformity to type	Annex VI
		- Components	EC type-examination	Annex III
		- Machines		
		- Autonomous protective systems		
		- Internal combustion engines		
		- Electrical equipment		
		- Safety devices, controlling devices and regulating devices		
		- Components and subassemblies		
		- Electrical equipment for use in the presence of combustible dust		
		Non-electrical equipment with the types of protection: mechanically generated sparks, hot surfaces and electromagnetic waves	Unit verification	Annex IX
		- Components	Production quality assurance	Annex IV
			Conformity to type	Annex VI
			Product verification	Annex V

39 / 43

Creation Date : 31/08/2011

LIST OF BODIES NOTIFIED UNDER DIRECTIVE : 94/9/EC Equipment and protective systems intended for use in potentially explosive atmospheres				
Name and address of the notified bodies	Identification number	Responsible for the following products	Responsible for the following procedures or modules	Annexes or articles of the directives
		- Machines	EC type-examination	Annex III
		Non-electrical equipment with the types of protection: mechanically generated sparks, hot surfaces and electromagnetic waves	Unit verification	Annex IX
		- Internal combustion engines	Production quality assurance	Annex IV
			Conformity to type	Annex VI
			EC type-examination	Annex III
		Non-electrical equipment with the types of protection: mechanically generated sparks, hot surfaces and electromagnetic waves	Unit verification	Annex IX
		- Safety devices, controlling devices and regulating devices	Production quality assurance	Annex IV
		Group II dust electrical	Conformity to type	Annex VI
		- Protective systems	Product verification	Annex V
		- Safety devices	EC type-examination	Annex III
		- Category 1 equipment		
		Group II dust electrical	Unit verification	Annex IX
		- Category 2 equipment	Production quality assurance	Annex IV
		- Category 3 equipment	Conformity to type	Annex VI
			EC type-examination	Annex III
		Group II dust non-electrical	Unit verification	Annex IX
		- Protective systems	Production quality assurance	Annex IV
		- Safety devices	Conformity to type	Annex VI
		- Category 1 equipment	Product verification	Annex V
			EC type-examination	Annex III
		Group II dust non-electrical	Unit verification	Annex IX
		- Category 2 equipment	Production quality assurance	Annex IV

40 / 43

Creation Date : 31/08/2011

LIST OF BODIES NOTIFIED UNDER DIRECTIVE : 94/9/EC Equipment and protective systems intended for use in potentially explosive atmospheres				
Name and address of the notified bodies	Identification number	Responsible for the following products	Responsible for the following procedures or modules	Annexes or articles of the directives
		- Category 3 equipment	Conformity to type EC type-examination	Annex VI Annex III
		Group II gas electrical - Protective systems - Safety devices - Category 1 equipment	Unit verification Production quality assurance Conformity to type Product verification EC type-examination	Annex IX Annex IV Annex VI Annex V Annex III
		Group II gas electrical - Category 2 equipment - Category 3 equipment	Unit verification Production quality assurance Conformity to type EC type-examination	Annex IX Annex IV Annex VI Annex III
		Group II gas non-electrical - Protective systems - Safety devices - Category 1 equipment	Unit verification Production quality assurance Conformity to type Product verification EC type-examination	Annex IX Annex IV Annex VI Annex V Annex III
		Group II gas non-electrical - Category 2 equipment - Category 3 equipment	Unit verification Production quality assurance Conformity to type EC type-examination	Annex IX Annex IV Annex VI Annex III
		Equipment in equipment group II, category 1G as follows - Non electrical equipment Equipment in equipment group II, categories 2G and 3G as follows - Non electrical equipment	Production quality assurance Product verification EC type-examination	Annex IV Annex V Annex III
Bureau Veritas Consumer Product Service Germany GmbH Wilhelm-Hennemann-Straße 8 19061 Schwerin Germany	2004			

41 / 43

Creation Date : 31/08/2011

LIST OF BODIES NOTIFIED UNDER DIRECTIVE : 94/9/EC Equipment and protective systems intended for use in potentially explosive atmospheres				
Name and address of the notified bodies	Identification number	Responsible for the following products	Responsible for the following procedures or modules	Annexes or articles of the directives
JEDNOSTKA OPINIOWA, ATESTOWA I CERTYFIKOWA WYROBY TEST SP. Z O.O. ul. Wyzwolenia 14 41-103 Siemianowice Slaskie Poland	2057	Equipment in equipment group II, category 1 as follows - Electrical equipment Equipment in equipment group II, categories 2 and 3 as follows - Electrical equipment		
		Equipment groups I and II, categories M2 and 2 - components and subassemblies - electrical equipment - non electrical equipment - safety devices, controlling devices and regulating devices	Internal control of production + receipt of technical file Product quality assurance Unit verification Conformity to type EC type-examination	Art. 8.1 (b) (ii) Annex VII Annex IX Annex VI Annex III
		Equipment in equipment groups I and II, categories M1 and 1, as follows - Non electrical equipment - Protective systems - Electrical equipment - Safety devices, controlling devices and regulating devices - Components and subassemblies	Unit verification Production quality assurance Product verification EC type-examination	Annex IX Annex IV Annex V Annex III
		Equipment groups I and II, categories M2 and 2 - internal combustion engines - low and medium voltage engines	Internal control of production + receipt of technical file Product quality assurance Unit verification Conformity to type EC type-examination	Art. 8.1 (b) (ii) Annex VII Annex IX Annex VI Annex III
Leumann & Uhlmann AG	2194	Equipment and protective systems intended for use in	Unit verification	Annex IX

42 / 43



Exploration & Production

General Specification

Date: 01/2012

GS EP ELE 079

Rev: 06

Appendix 3

Creation Date : 31/08/2011

LIST OF BODIES NOTIFIED UNDER DIRECTIVE : 94/9/EC Equipment and protective systems intended for use in potentially explosive atmospheres				
Name and address of the notified bodies	Identification number	Responsible for the following products	Responsible for the following procedures or modules	Annexes or articles of the directives
Hofackerstrasse 10 CH-4132 Muttenz Switzerland		potentially explosive atmospheres	Conformity to type Product verification EC type-examination	Annex VI Annex V Annex III
IEP Uluslararası Enerji Petrol Gözetim Sertifikasyon ve Teknik Hizmetler Organizasyonu Ticaret Limited Şirketi MTK Sitesi 2.Giriş 5746/1 Sokak. No:9 Kat: 2 Çamdibi 35090 İZMİR/TÜRKİYE Çamdibi - İzmir Turkey	2284	Equipment and protective systems intended for use in potentially explosive atmospheres Equipment in equipment groups I and II, categories M1 and 1, as follows Equipment in equipment groups I and II, categories M1, M2, 1, 2 and 3, as follows Equipment groups I and II, categories M2 and 2	Internal control of production + receipt of technical file Unit verification Conformity to type Product verification EC type-examination	Art. 8.1 (b) (ii) Annex IX Annex V/I Annex V Annex III

43 / 43

Appendix 4 List of ExCBs under **IECEX 02** - IECEx Equipment certification program

(Extract from IECEx Website, dated 31/08/2011)

Acronym	Name	Country
ITACS	International Testing and Certification Services P/L	Australia (AU)
SIMTARS	Safety in Mines Testing and Research Station	
TestSafe	TestSafe	
NCC	Associação NCC Certificacoes do Brasil	Brasil (BR)
CSA	CSA International (Canadian Safety Authority)	Canada (CA)
QPS	QPS	
Electrosuisse	Electrosuisse	Switzerland (CH)
CQM	China Quality Mark Certification Group	Chine (CN)
FTZU	Fyzikáln technický zkušební ústav (Physical Technical Testing Institute)	Czech Rep. (CZ)
BV	Bureau Veritas Consumer Products Services Germany GmbH	Germany (DE)
EXAM	DEKRA EXAM GmbH	
IBExU	IBExU Institut für Sicherheitstechnik GmbH	
PTB	Physikalisch-Technische Bundesanstalt	
TÜV NORD	TÜV NORD CERT GmbH	
TÜV Rheinland	TÜV Rheinland Industrie Service GmbH	
TÜV SÜD	TÜV SÜD Product Service GmbH	
ZELM	ZELM Explosionsschutz GmbH	
UL/DEMKO	UL International DEMKO A/S	Denmark (DK)
VTT	VTT Technical Research Centre of Finland	Finland (FI)
INERIS	Institut National de l'Environnement Industriel et des Risques	France (FR)
LCIE	Laboratories Central des industriesElectriques International	
BASEEFA	BASEEFA	Great-Britain (GB)
FM UK	FM Approval	
ITS	Intertek Testing and Certification Ltd	
SIRA	SIRA Certification Service	
TRaC	TRaC Global Ltd	
BKI	Hungarian Approval Service for Ex-proof Electrical Equipment	Hungary (HU)
CESI	Centro Elettrotecnico Sperimentale Italiano S.p.A.	Italy (IT)
KGS	Institute of Gas Safety R&D Korea Gas Safety Corporation	Korea (KR)
KOSHA	Korea Occupational Safety and Health Agency	
KTL	Korea Testing Laboratory	
DEKRA	DEKRA Certification B.V.	Netherlands (NL)
DNV	Det Norske Veritas Certification AS	Norway (NO)
NEMKO	NEMKO	
GIG	Central Mining Institute	Poland (PL)
NANIO CCVE	Certification Centre of explosion-proof and mine electrical equipment	Russia (RU)
SIQ	Slovenian Institute of Quality and Metrology	Slovenia (SI)
SP	SP Technical Research Institute of Sweden	Sweden (SE)



Exploration & Production

General Specification

Date: 01/2012

GS EP ELE 079

Rev: 06

Appendix 4

Acronym	Name	Country
FM	FM Approvals LLC	United States (US)
ITS	Intertek Testing Services NA	
UL	Underwriters Laboratories Inc	



Appendix 5 List of ExCBs under IECEx 03 - IECEx Certified Facilities Program

(Extract from IECEx Website, dated 31/08/2011)

Acronym	Name	Country
SIMTARS	Safety in Mines Testing and Research Station	Australia (AU)
TestSafe	TestSafe	
TRA	TÜV Rheinland Australia Pty., Ltd.	
DEKRA	DEKRA Exam GmbH	Germany (G)
PTB	Physikalisch-Technische Bundesanstalt	
SIRIM	SIRIM QAS International SDN BHD	Malaysia
DEKRA	DEKRA Certification B.V.	Netherlands (NL)
NEMKO	NEMKO	Norway (NO)
BASEEFA	BASEEFA	United Kingdom (UK)
SIRA	SIRA Certification Service	
UL	Underwriters Laboratories Inc.	United State of America (USA)



Appendix 6 List of harmonised standards under Directive 94/9/EC

*(The Official Journal of the European Union Publication,
reference 2011/C 168/02, dated 08/06/2011)*

C 168/2

EN

Official Journal of the European Union

8.6.2011

Commission communication in the framework of the implementation of Directive 94/9/EC of the European Parliament and of the Council on the approximation of the laws of the Member States concerning equipment and protective systems intended for use in potentially explosive atmospheres

(Text with EEA relevance)

(Publication of titles and references of harmonised standards under the directive)

(2011/C 168/02)

ESO ⁽¹⁾	Reference and title of the harmonised standard (and reference document)	First publication OJ	Reference of superseded standard	Date of cessation of presumption of conformity of superseded standard Note 1
CEN	EN 1010-1:2004+A1:2010 Safety of machinery — Safety requirements for the design and construction of printing and paper converting machines — Part 1: Common requirements	This is the first publication	EN 1010-1:2004 Note 2.1	The date of this publication
CEN	EN 1010-2:2006+A1:2010 Safety of machinery — Safety requirements for the design and construction of printing and paper converting machines — Part 2: Printing and varnishing machines including pre-press machinery	4.2.2011	EN 1010-2:2006 Note 2.1	Date expired (28.2.2011)
CEN	EN 1127-1:2007 Explosive atmospheres — Explosion prevention and protection — Part 1: Basic concepts and methodology	11.4.2008	EN 1127-1:1997 Note 2.1	Date expired (28.12.2009)
CEN	EN 1127-2:2002+A1:2008 Explosive atmospheres — Explosion prevention and protection — Part 2: Basic concepts and methodology for mining	20.8.2008	EN 1127-2:2002 Note 2.1	Date expired (28.12.2009)
CEN	EN 1710:2005+A1:2008 Equipment and components intended for use in potentially explosive atmospheres in under- ground mines	20.8.2008	EN 1710:2005 Note 2.1	Date expired (28.12.2009)
	EN 1710:2005+A1:2008/AC:2010			
CEN	EN 1755:2000+A1:2009 Safety of industrial trucks — Operation in potentially explosive atmospheres — Use in flammable gas, vapour, mist and dust	16.4.2010	EN 1755:2000 Note 2.1	Date expired (16.4.2010)
CEN	EN 1834-1:2000 Reciprocating internal combustion engines — Safety requirements for design and construction of engines for use in potentially explosive atmospheres — Part 1: Group II engines for use in flammable gas and vapour atmospheres	21.7.2001		
CEN	EN 1834-2:2000 Reciprocating internal combustion engines — Safety requirements for design and construction of engines for use in potentially explosive atmospheres — Part 2: Group I engines for use in underground workings susceptible to firedamp and/or combustible dust	21.7.2001		

8.6.2011

EN

Official Journal of the European Union

C 168/3

ESO ⁽¹⁾	Reference and title of the harmonised standard (and reference document)	First publication OJ	Reference of superseded standard	Date of cessation of presumption of conformity of superseded standard Note 1
CEN	EN 1834-3:2000 Reciprocating internal combustion engines — Safety requirements for design and construction of engines for use in potentially explosive atmospheres — Part 3: Group II engines for use in flammable dust atmos- pheres	21.7.2001		
CEN	EN 1839:2003 Determination of explosion limits of gases and vapours	12.8.2004		
CEN	EN 12581:2005+A1:2010 Coating plants — Machinery for dip coating and electrodeposition of organic liquid coating material — Safety requirements	17.9.2010	EN 12581:2005 Note 2.1	Date expired (31.12.2010)
CEN	EN 12621:2006+A1:2010 Machinery for the supply and circulation of coating materials under pressure — Safety requirements	17.9.2010	EN 12621:2006 Note 2.1	Date expired (31.12.2010)
CEN	EN 12757-1:2005+A1:2010 Mixing machinery for coating materials — Safety requirements — Part 1: Mixing machinery for use in vehicle refinishing	17.9.2010	EN 12757-1:2005 Note 2.1	Date expired (31.12.2010)
CEN	EN 13012:2001 Petrol filling stations — Construction and performance of automatic nozzles for use on fuel dispensers	22.1.2002		
CEN	EN 13160-1:2003 Leak detection systems — Part 1: General principles	14.8.2003		
CEN	EN 13237:2003 Potentially explosive atmospheres — Terms and definitions for equipment and protective systems intended for use in potentially explosive atmospheres	14.8.2003		
CEN	EN 13463-1:2009 Non-electrical equipment for use in potentially explosive atmospheres — Part 1: Basic method and requirements	16.4.2010	EN 13463-1:2001 Note 2.1	Date expired (31.12.2010)
CEN	EN 13463-2:2004 Non-electrical equipment for use in potentially explosive atmospheres — Part 2: Protection by flow restricting enclosure 'fr'	30.11.2005		
CEN	EN 13463-3:2005 Non-electrical equipment for use in potentially explosive atmospheres — Part 3: Protection by flameproof enclosure 'd'	30.11.2005		
CEN	EN 13463-5:2003 Non-electrical equipment intended for use in potentially explosive atmospheres — Part 5: Protection by constructional safety 'c'	12.8.2004		

C 168/4

EN

Official Journal of the European Union

8.6.2011

ESO ⁽¹⁾	Reference and title of the harmonised standard (and reference document)	First publication OJ	Reference of superseded standard	Date of cessation of presumption of conformity of superseded standard Note 1
CEN	EN 13463-6:2005 Non-electrical equipment for use in potentially explosive atmospheres — Part 6: Protection by control of ignition source 'b'	30.11.2005		
CEN	EN 13463-8:2003 Non-electrical equipment for potentially explosive atmospheres — Part 8: Protection by liquid immersion 'k'	12.8.2004		
CEN	EN 13616:2004 Overfill prevention devices for static tanks for liquid petroleum fuels	9.3.2006		
	EN 13616:2004/AC:2006			
CEN	EN 13617-1:2004+A1:2009 Petrol filling stations — Part 1: Safety requirements for construction and performance of metering pumps, dispensers and remote pumping units	7.7.2010	EN 13617-1:2004 Note 2.1	Date expired (31.12.2010)
CEN	EN 13617-2:2004 Petrol filling stations — Part 2: Safety requirements for construction and performance of safe breaks for use on metering pumps and dispensers	30.11.2005		
CEN	EN 13617-3:2004 Petrol filling stations — Part 3: Safety requirements for construction and performance of shear valves	30.11.2005		
CEN	EN 13673-1:2003 Determination of the maximum explosion pressure and the maximum rate of pressure rise of gases and vapours — Part 1: Deter- mination of the maximum explosion pressure	14.8.2003		
CEN	EN 13673-2:2005 Determination of maximum explosion pressure and the maximum rate of pressure rise of gases and vapours — Part 2: Deter- mination of the maximum rate of explosion pressure rise	30.11.2005		
CEN	EN 13760:2003 Automotive LPG filling system for light and heavy duty vehicles — Nozzle, test requirements and dimensions	24.1.2004		
CEN	EN 13821:2002 Potentially explosive atmospheres — Explosion prevention and protection — Deter- mination of minimum ignition energy of dust/air mixtures	20.5.2003		

8.6.2011

EN

Official Journal of the European Union

C 168/5

ESO ⁽¹⁾	Reference and title of the harmonised standard (and reference document)	First publication OJ	Reference of superseded standard	Date of cessation of presumption of conformity of superseded standard Note 1
CEN	EN 13980:2002 Potentially explosive atmospheres — Appli- cation of quality systems	20.5.2003		
CEN	EN 14034-1:2004+A1:2011 Determination of explosion characteristics of dust clouds — Part 1: Determination of the maximum explosion pressure p _{max} of dust clouds	This is the first publication	EN 14034-1:2004 Note 2.1	31.7.2011
CEN	EN 14034-2:2006+A1:2011 Determination of explosion characteristics of dust clouds — Part 2: Determination of the maximum rate of explosion pressure rise (dp/dt) _{max} of dust clouds	This is the first publication	EN 14034-2:2006 Note 2.1	31.7.2011
CEN	EN 14034-3:2006+A1:2011 Determination of explosion characteristics of dust clouds — Part 3: Determination of the lower explosion limit LEL of dust clouds	This is the first publication	EN 14034-3:2006 Note 2.1	31.7.2011
CEN	EN 14034-4:2004+A1:2011 Determination of explosion characteristics of dust clouds — Part 4: Determination of the limiting oxygen concentration LOC of dust clouds	This is the first publication	EN 14034-4:2004 Note 2.1	31.7.2011
CEN	EN 14373:2005 Explosion suppression systems	9.3.2006		
CEN	EN 14460:2006 Explosion resistant equipment	15.12.2006		
CEN	EN 14491:2006 Dust explosion venting protective systems	20.7.2006		
	EN 14491:2006/AC:2008			
CEN	EN 14492-1:2006+A1:2009 Cranes — Power-driven winches and hoists — Part 1: Power-driven winches	16.4.2010	EN 14492-1:2006 Note 2.1	Date expired (30.4.2010)
	EN 14492-1:2006+A1:2009/AC:2010			
CEN	EN 14492-2:2006+A1:2009 Cranes — Power-driven winches and hoists — Part 2: Power-driven hoists	16.4.2010	EN 14492-2:2006 Note 2.1	Date expired (16.4.2010)
	EN 14492-2:2006+A1:2009/AC:2010			
CEN	EN 14522:2005 Determination of the auto ignition temperature of gases and vapours	30.11.2005		

C 168/6

EN

Official Journal of the European Union

8.6.2011

ESO ⁽¹⁾	Reference and title of the harmonised standard (and reference document)	First publication OJ	Reference of superseded standard	Date of cessation of presumption of conformity of superseded standard Note 1
CEN	EN 14591-1:2004 Explosion prevention and protection in under- ground mines — Protective systems — Part 1: 2-bar explosion proof ventilation structure	9.3.2006		
	EN 14591-1:2004/AC:2006			
CEN	EN 14591-2:2007 Explosion prevention and protection in under- ground mines — Protective systems — Part 2: Passive water trough barriers	12.12.2007		
	EN 14591-2:2007/AC:2008			
CEN	EN 14591-4:2007 Explosion prevention and protection in under- ground mines — Protective systems — Part 4: Automatic extinguishing systems for road headers	12.12.2007		
	EN 14591-4:2007/AC:2008			
CEN	EN 14677:2008 Safety of machinery — Secondary steelmaking — Machinery and equipment for treatment of liquid steel	20.8.2008		
CEN	EN 14678-1:2006+A1:2009 LPG equipment and accessories — Construction and performance of LPG equipment for automotive filling stations — Part 1: Dispensers	16.4.2010	EN 14678-1:2006 Note 2.1	Date expired (16.4.2010)
CEN	EN 14681:2006+A1:2010 Safety of machinery — Safety requirements for machinery and equipment for production of steel by electric arc furnaces	This is the first publication	EN 14681:2006 Note 2.1	The date of this publication
CEN	EN 14756:2006 Determination of the limiting oxygen concen- tration (LOC) for flammable gases and vapours	12.12.2007		
CEN	EN 14797:2006 Explosion venting devices	12.12.2007		
CEN	EN 14973:2006+A1:2008 Conveyor belts for use in underground instal- lations — Electrical and flammability safety requirements	7.7.2010	EN 14973:2006 Note 2.1	Date expired (31.12.2010)
CEN	EN 14983:2007 Explosion prevention and protection in underground mines — Equipment and protective systems for firedamp drainage	12.12.2007		
CEN	EN 14986:2007 Design of fans working in potentially explosive atmospheres	12.12.2007		

C 168/8

EN

Official Journal of the European Union

8.6.2011

ESO (1)	Reference and title of the harmonised standard (and reference document)	First publication OJ	Reference of superseded standard	Date of cessation of presumption of conformity of superseded standard Note 1
Cenelec	EN 50241-1:1999 Specification for open path apparatus for the detection of combustible or toxic gases and vapours — Part 1: General requirements and test methods	6.11.1999		
	EN 50241-1:1999/A1:2004	12.8.2004	Note 3	Date expired (12.8.2004)
Cenelec	EN 50241-2:1999 Specification for open path apparatus for the detection of combustible or toxic gases and vapours — Part 2: Performance requirements for apparatus for the detection of combustible gases	6.11.1999		
Cenelec	EN 50271:2010 Electrical apparatus for the detection and measurement of combustible gases, toxic gases or oxygen — Requirements and tests for apparatus using software and/or digital technologies	4.2.2011		
Cenelec	EN 50281-2-1:1998 Electrical apparatus for use in the presence of combustible dust — Part 2-1: Test methods — Methods for determining the minimum ignition temperatures of dust	6.11.1999		
	EN 50281-2-1:1998/AC:1999			
Cenelec	EN 50303:2000 Group I, Category M1 equipment intended to remain functional in atmospheres endangered by firedamp and/or coal dust	16.2.2001		
Cenelec	EN 50381:2004 Transportable ventilated rooms with or without an internal source of release	9.3.2006		
	EN 50381:2004/AC:2005			
Cenelec	EN 50495:2010 Safety devices required for the safe functioning of equipment with respect to explosion risks	17.9.2010		
Cenelec	EN 60079-0:2009 Explosive atmospheres — Part 0: Equipment — General requirements IEC 60079-0:2007	16.4.2010	EN 60079-0:2006 + EN 61241-0:2006 Note 2.1	1.6.2012
Cenelec	EN 60079-1:2007 Explosive atmospheres — Part 1: Equipment protection by flameproof enclosures 'd' IEC 60079-1:2007	20.8.2008	EN 60079-1:2004 Note 2.1	Date expired (1.7.2010)
Cenelec	EN 60079-2:2007 Explosive atmospheres — Part 2: Equipment protection by pressurised enclosure 'p' IEC 60079-2:2007	20.8.2008	EN 60079-2:2004 Note 2.1	Date expired (1.11.2010)

8.6.2011

EN

Official Journal of the European Union

C 168/9

ESO (1)	Reference and title of the harmonised standard (and reference document)	First publication OJ	Reference of superseded standard	Date of cessation of presumption of conformity of superseded standard Note 1
Cenelec	EN 60079-5:2007 Explosive atmospheres — Part 5: Equipment protection by powder filling 'q' IEC 60079-5:2007	20.8.2008	EN 50017:1998 Note 2.1	Date expired (1.11.2010)
Cenelec	EN 60079-6:2007 Explosive atmospheres — Part 6: Equipment protection by oil immersion 'o' IEC 60079-6:2007	20.8.2008	EN 50015:1998 Note 2.1	Date expired (1.5.2010)
Cenelec	EN 60079-7:2007 Explosive atmospheres — Part 7: Equipment protection by increased safety 'e' IEC 60079-7:2006	11.4.2008	EN 60079-7:2003 Note 2.1	Date expired (1.10.2009)
Cenelec	EN 60079-11:2007 Explosive atmospheres — Part 11: Equipment protection by intrinsic safety 'i' IEC 60079-11:2006	11.4.2008	EN 50020:2002 Note 2.1	Date expired (1.10.2009)
Cenelec	EN 60079-15:2010 Explosive atmospheres — Part 15: Equipment protection by type of protection 'n' IEC 60079-15:2010	This is the first publication	EN 60079-15:2005 Note 2.1	1.5.2013
Cenelec	EN 60079-18:2009 Explosive atmospheres — Part 18: Equipment protection by encapsulation 'm' IEC 60079-18:2009	7.7.2010	EN 60079-18:2004 + EN 61241-18:2004 Note 2.1	1.10.2012
Cenelec	EN 60079-20-1:2010 Explosive atmospheres — Part 20-1: Material characteristics for gas and vapour classification — Test methods and data IEC 60079-20-1:2010	17.9.2010		
Cenelec	EN 60079-25:2010 Explosive atmospheres — Part 25: Intrinsically safe electrical systems IEC 60079-25:2010	This is the first publication	EN 60079-25:2004 Note 2.1	1.10.2013
Cenelec	EN 60079-26:2007 Explosive atmospheres — Part 26: Equipment with equipment protection level (EPL) Ga IEC 60079-26:2006	20.8.2008		
Cenelec	EN 60079-27:2008 Explosive atmospheres — Part 27: Fieldbus intrinsically safe concept (FISCO) IEC 60079-27:2008	16.4.2010	EN 60079-27:2006 Note 2.1	Date expired (1.4.2011)
Cenelec	EN 60079-28:2007 Explosive atmospheres — Part 28: Protection of equipment and transmission systems using optical radiation IEC 60079-28:2006	11.4.2008		

C 168/10

EN

Official Journal of the European Union

8.6.2011

ESO ⁽¹⁾	Reference and title of the harmonised standard (and reference document)	First publication OJ	Reference of superseded standard	Date of cessation of presumption of conformity of superseded standard Note 1
Cenelec	EN 60079-29-1:2007 Explosive atmospheres — Part 29-1: Gas detectors — Performance requirements of detectors for flammable gases IEC 60079-29-1:2007 (Modified)	20.8.2008	EN 61779-1:2000 + A11:2004 + EN 61779-2:2000 + EN 61779-3:2000 + EN 61779-4:2000 + EN 61779-5:2000 Note 2.1	Date expired (1.11.2010)
Cenelec	EN 60079-29-4:2010 Explosive atmospheres — Part 29-4: Gas detectors — Performance requirements of open path detectors for flammable gases IEC 60079-29-4:2009 (Modified)	This is the first publication	EN 50241-1:1999 and its amendment + EN 50241-2:1999 Note 2.1	1.4.2013
Cenelec	EN 60079-30-1:2007 Explosive atmospheres — Part 30-1: Electrical resistance trace heating — General and testing requirements IEC 60079-30-1:2007	20.8.2008		
Cenelec	EN 60079-31:2009 Explosive atmospheres — Part 31: Equipment dust ignition protection by enclosure 't' IEC 60079-31:2008	7.7.2010	EN 61241-1:2004 Note 2.1	1.10.2012
Cenelec	EN 61241-4:2006 Electrical apparatus for use in the presence of combustible dust — Part 4: Type of protection 'pD' IEC 61241-4:2001	20.8.2008		
Cenelec	EN 61241-11:2006 Electrical apparatus for use in the presence of combustible dust — Part 11: Protection by intrinsic safety 'ID' IEC 61241-11:2005	11.4.2008		
Cenelec	EN 62013-1:2006 Caplights for use in mines susceptible to firedamp — Part 1: General requirements — Construction and testing in relation to the risk of explosion IEC 62013-1:2005	20.8.2008	EN 62013-1:2002 Note 2.1	Date expired (1.2.2009)

⁽¹⁾ ESO: European Standards Organisation:

- CEN: Avenue Marnix 17, 1000 Bruxelles/Brussel, BELGIQUE/BELGIË, Tel. +32 25500811, Fax +32 25500819 (<http://www.cen.eu>),
- Cenelec: Avenue Marnix 17, 1000 Bruxelles/Brussel, BELGIQUE/BELGIË, Tel. +32 25196871, Fax +32 25196919 (<http://www.cenelec.eu>),
- ETSI: 650 route des Lucioles, 06921 Sophia Antipolis, FRANCE, Tel. +33 492944200, Fax +33 493654716 (<http://www.etsi.eu>).

Note 1: Generally the date of cessation of presumption of conformity will be the date of withdrawal ('dow'), set by the European Standardisation Organisation, but attention of users of these standards is drawn to the fact that in certain exceptional cases this can be otherwise.

Note 2.1: The new (or amended) standard has the same scope as the superseded standard. On the date stated, the superseded standard ceases to give presumption of conformity with the essential requirements of the directive.

Note 2.2: The new standard has a broader scope than the superseded standard. On the date stated, the superseded standard ceases to give presumption of conformity with the essential requirements of the directive.



Note 2.3: The new standard has a narrower scope than the superseded standard. On the date stated, the (partially) superseded standard ceases to give presumption of conformity with the essential requirements of the directive for those products that fall within the scope of the new standard. Presumption of conformity with the essential requirements of the directive for products that still fall within the scope of the (partially) superseded standard, but that do not fall within the scope of the new standard, is unaffected.

Note 3: In case of amendments, the referenced standard is EN CCCC:YYYY, its previous amendments, if any, and the new, quoted amendment. The superseded standard (column 3) therefore consists of EN CCCC:YYYY and its previous amendments, if any, but without the new quoted amendment. On the date stated, the superseded standard ceases to give presumption of conformity with the essential requirements of the directive.

NOTE:

- Any information concerning the availability of the standards can be obtained either from the European Standardisation Organisations or from the national standardisation bodies of which the list is annexed to the Directive 98/34/EC of the European Parliament and of the Council amended by the Directive 98/48/EC.
- Harmonised standards are adopted by the European Standardisation Organisations in English (CEN and Cenelec also publish in French and German). Subsequently, the titles of the harmonised standards are translated into all other required official languages of the European Union by the National Standards Bodies. The European Commission is not responsible for the correctness of the titles which have been presented for publication in the Official Journal.
- Publication of the references in the *Official Journal of the European Union* does not imply that the standards are available in all the Community languages.
- This list replaces all the previous lists published in the *Official Journal of the European Union*. The Commission ensures the updating of this list.
- More information about harmonised standards on the Internet at
http://ec.europa.eu/enterprise/policies/european-standards/harmonised-standards/index_en.htm