



ExMC/1103/DV
April 2016

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

**Title: Re-assessment and Scope Extension Report for Institut National de
l'Environnement Industriel et des Risques (INERIS) an Accepted ExCB and
an Accepted ExTL within the IECEx System, Equipment Scheme 02**

To: Members of the IECEx Management Committee, ExMC

Introduction

This document contains the IECEx Re-Assessment Report for Institut National de l'Environnement Industriel et des Risques (INERIS) an Accepted ExCB and an Accepted ExTL within the IECEx System, Equipment Scheme 02

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

ISO 80079-36 Explosive atmospheres - Part 36: Non-electrical equipment for explosive atmospheres - Basic method and requirements

ISO 80079-37 Explosive atmospheres - Part 37: Non-electrical equipment for explosive atmospheres - Non electrical type of protection constructional safety "c", control of ignition source "b", liquid immersion "k"

Please consider the assessment report and return the completed voting form, (A separate Word document) to [the Secretariat](#) by

2016 05 16

Your speedy response to the voting process will be very much appreciated.

Chris Agius

IECEx Secretariat

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ExMC/1103/DV
April 2016

**IEC System for certification to standards relating to equipment for use in
Explosive Atmospheres (IECEx System)**

IECEx Assessment Report Form

IECEx Assessment Report Form for use by IECEx Assessment Teams to report
Assessments conducted according to the IECEx Assessment Procedures of

- a) Operational Document IECEx OD 003-2 for the Certified Equipment Scheme
- b) Operational Document IECEx OD 016 for the Certified Service Facility Scheme
- c) Operational Document IECEx OD 022 for the IECEx Conformity Mark Licensing System

IECEx ExCB/ExTL assessment report for INERIS

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION



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1 Assessment information

1.1 Type of Body covered by this assessment:

ExCB for IECEx Certified Equipment Scheme	✓
ExTL for IECEx Certified Equipment Scheme	✓
ExCB for IECEx Certified Service Facilities Scheme	
ExCB for IECEx Conformity Mark Licensing System	✓

NOTE 1 ExCB - IECEx Certification Body

NOTE 2 ExTL - IECEx Testing Laboratory

1.2 Type of assessment: <retain appropriate marks>

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

The opportunity was taken to conduct a scope extension assessment for the new ISO 800079-36 and -37 Standards which were in their final Draft form, in accordance with the decisions of the 2015 ExMC Christchurch meeting, during the scheduled re-assessment.

Additional time was allocated to include the non-electrical standards and a draft TCD (Technical Capability Document) was also used as part of the assessment tools for this purpose.

It should also be known that the Lead Assessor, Mr Ron Webb has been intimately involved in the preparation of the new non electrical standards as well as a member ExMC WG15 (non electrical expert Working Group).

1.3 Details of body

1.3.1 Country

France

1.3.2 Name of body

INERIS
Institut National de l'Environnement Industriel
et des Risques

1.3.3 Name and title of nominated principal contact

Name	Title	E-mail address
Thierry Houeix	Ex Certification Officer	thierry.houeix@ineris.fr

1.4 Assessment information

1.4.1 Members of the assessment team

Name	Role (modify as necessary)
Ron Webb	Lead Assessor
Heinz Farke	Expert Assessor

1.4.2 Place(s) of assessment

Parc Technologique ALATA F-60550 Verneuil-en-Halatte

1.4.3 Assessment date(s)

18-20 November 2015

1.5 Scope

1.5.1 ExCB scope for equipment certification scheme

Number	Title
IEC 60079-0 Edition 6	Explosive atmospheres - Part 0: Equipment - General requirements
IEC 60079-1 Edition 7	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
IEC 60079-2 Edition 5	Explosive atmospheres - Part 2: Equipment protection by pressurized enclosure «p»
IEC 60079-5 Edition 3	Explosive atmospheres - Part 5: Equipment protection by powder filling «q»
IEC 60079-6 Edition 3	Explosive atmospheres - Part 6: Equipment protection by oil immersion «o»
IEC 60079-7 Edition 4	Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
IEC 60079-11 Edition 6	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
IEC 60079-13 Edition 1	Explosive atmospheres - Part 13: Equipment protection by pressurized room 'p'
IEC 60079-15 Edition 4	Explosive atmospheres – Part 15: Equipment protection by type of protection "n"
IEC 60079-18 Edition 3	Explosive atmospheres – Part 18: Equipment protection by encapsulation "m"
IEC 60079-25 Edition 2	Explosive atmospheres – Part 25: Intrinsically safe electrical systems
IEC 60079-26 Edition 2	Explosive atmospheres - Part 26: Equipment with equipment protection level (EPL) Ga
IEC 60079-28 Edition 2	Explosive atmospheres - Part 28: Protection of equipment and transmission systems using optical radiation
IEC 60079-31 Edition 2	Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure "t"
*IEC 61241-0 Edition 1	Electrical apparatus for use in the presence of combustible dust - Part 0: General requirements
*IEC 61241-1 Edition 1	Electrical apparatus for use in the presence of combustible dust - Part 1: Protection by enclosure "tD"
*IEC 61241-1-1 Edition 1	Electrical apparatus protected by enclosures and surface temperature limitation – specification for apparatus
*IEC 61241-4 Edition 1	Electrical apparatus for use in the presence of combustible dust - Part 4: Protection by pressurization "pD"
*IEC 61241-11 Edition 1	Electrical apparatus for use in the presence of combustible dust – Part 11: Protection by intrinsic safety 'iD'
*IEC 61241-18	Electrical apparatus for use in the presence of combustible dust - Part 18:

Number	Title
Edition 1	Protection by encapsulation "mD"
ISO 80079-36 Scope Extension	Non-electrical equipment for explosive atmospheres – Basic method and requirements
ISO 80079-37 Scope Extension	Non-electrical equipment for explosive atmospheres – Non electrical type of protection constructional safety "c", control of ignition source "b", liquid immersion "k"

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

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

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

1.5.2 ExTL scope

The ExTL scope is the same as for the ExCB.

1.5.3 ExCB scope for ExMark Scheme

Full scope as shown for ExCB above.

2 Common information

2.1 Legal entity of body

There is a decree of creation from the Government for the creation of *Institut National de l'Environnement Industriel et des Risques* (INERIS) as a public research body of an industrial and commercial nature, under the supervision of the French Ministry of the Environment and Sustainable Development. It has a special status and the organisation is not a Government body as such. The employees are employed by INERIS, not the Government. The site and buildings are owned by INERIS

2.2 Financial support

Under the INERIS financial policies, the testing and certification activities of INERIS are required to be run on a self-financing basis from the fees charged for their services.

2.3 History

INERIS has a mission of assessing and preventing accidental and chronic risks to people and the environment due to industrial plants, chemical substances and underground operations.

Founded in 1990, INERIS is a public institution with industrial and commercial dimensions, under the supervision of the Ministry for National and Regional Development and the Environment.

Before becoming INERIS, the Ex team was part of CERCHAR, which was the French Research Centre for Coal Mine Industry.

INERIS is a Notified Body in the context of European directives regarding explosive atmospheres, machinery, hardware and explosives for civil use.

INERIS's experts are involved in the following main areas:



- Equipment, hardware, systems, protective devices, gas sensors and detectors: explosive atmospheres (ATEX), ElectroMagnetic Compatibility (EMC), and the Machinery and Low Voltage (LV).
- Machinery and installations in explosive locations: gas, dust.
- Electronic systems: system safety, operational reliability, lightning protection, etc.
- Safety components and devices.
- Explosives and pyrotechnics.
- Transport of dangerous goods, equipment and related items.
- Dangerous goods.

2.4 Documentation

2.4.1 Quality manual

INERIS has a comprehensive quality manual supported by other procedural documents, which refer to ISO 9001, ISO/IEC 17025 and ISO/IEC 17065 requirements. The Quality /manual was found to meet the requirements of the IECEx.

2.4.2 Procedures

INERIS has a very comprehensive range of procedures covering all aspects of the testing operations that were audited as part of this assessment. Where applicable each procedure has with it an associated test sheet for completion by the staff. These Procedures were found to meet the requirements of the IECEx.

2.4.3 Work instructions

Work Instructions are an integral part within the documented procedures. Hence no separate work instructions exist.

2.4.4 Records (including test records where relevant)

All records are appropriately maintained and stored as hard copy. There is an archiving process in place, also hard copy, in an alternative location as a backup for the records. The system was found to meet the requirements of the IECEx.

NOTE 1 Example records should be sought of oldest records both in electronic and hard copy to test the retrieval and existence of records, including archival records.

NOTE 2 Information should be sought on whether there is a method of secure disposal of hard copy records once they have been placed on an electronic system.

2.4.5 Document change control

Document change control is affected by having the master document as the electric document on the intranet.

Printed copies are effectively uncontrolled and show an expiry date one month after printing.

2.5 Confidentiality

All employees and members of committees sign confidentiality agreements. Examples of these were sighted by the team and found to meet the requirements of the IECEx

There is a system of security control at the main entrance gate and entrance to buildings is controlled by key or, in the case of newer buildings, by key pad.

2.6 Publications (Hard cover and Electronic)

IECEx scheme rules for INERIS Ex certification are available on the INERIS's website

2.7 Recognition and agreements

INERIS has several agreements with organisations in other countries.

2.8 Internal audit and periodic management review

There is an overall audit system for INERIS, including at technical level with the Ex operations. INERIS does have in place a method of regularly (generally on a monthly basis) investigating existing testing activities.

Internal audits are done once a year for each type of operation. There are separate audits for the ExCB and the ExTL.

The internal audit for IECEx to ISO/IEC 17065 carried out on 2 September 2015 was reviewed. The audit took place over a day and had a team of three auditors. The audit included review of two IECEx project files. There were findings from the audit relating to dates of certain documents. There were some observations also raised. The corrective action was viewed and found to be satisfactory.

The internal audit for IECEx to ISO/IEC 17025 carried out on 25 June 2015 was reviewed.

The audit took place over a half day and had a team of two auditors. No nonconformities were found.

The management review meeting that took place on 6 November 2015 was reviewed. It includes covers internal audits, corrective actions/accreditation audits, customer satisfaction (including complaints), data on number of certificates issued (including IECEx certificates), meeting of certification committee.

2.9 Contracting, subcontracting, use of other labs and use of other locations

Subcontracting is covered in PR0861, PR0868, PQ0083 which relates principally to the ExTL activity. The procedures state that for IECEx any subcontracting will be done to only another Accepted IECEx ExTL. This is related to special Ex tests. The only test that falls under this category is high voltage motors in flammable atmospheres. INERIS have both PTB and CESI as potential subcontractors for this test but there have been no requests for IECEx certificates to date that required this test. There has been one for an ATEX certificate and the test was performed at PTB.

Other subcontractors have been identified for the following tests:

- UV radiation – COFRAC accredited laboratory, SGS Sercovam or UL (Germany)
- Shock test for batteries - COFRAC accredited laboratory, Sopemea
- Fire resistance (IEC 60079-1) - COFRAC accredited laboratory, CREPIM
- SO₂ test (IEC 60079-7) - Accredia accredited laboratory, IMQ
- Vibration test (IEC 60079-7) - Accredia accredited laboratory, CENTROTECNICA s.r.l
- Ignition tests for IEC 60079-28 – PTB
- When off-site or witness testing is done, or proposed to be done, the procedures reference OD 024
- When it is being done, contracts are put in place
- The ExTRs clearly indicate when there has been witness testing done

2.10 Training and competence

All staff employed are selected for qualifications and/or experience relevant to their responsibilities. Each member of staff has a full job description, which comprehensively defines their responsibilities, job function, qualification requirements and their position within the organisation.



Every two months there is training of people in the ExCB and ExTL on the operations, outcome of audits, revised standards and procedures related to IECEx. An example of a comprehensive training session presentation was shown and was found to meet the requirements of the IECEx.

There is a competency matrix for all ExCB, with a separate one for the ExTL.

2.11 Complaints and appeals (including appeals to IECEx)

There is a general process in INERIS for internal complaints, internal and external audits, and external complaints. This covers the complaints mechanism requirements of the ExCB and ExTL.

In the Procedures PR0861 and PR0868, there are special clauses to ensure that complaints regarding certified products, service, presentation of results, methods or any other subject are effectively dealt with. Also to ensure that appeals and disputes in respect of certification activity and dealt with fairly and transparently. The procedures address the provision of appeals to IECEx and the applicants are advised of this facility.

2.12 Special facts to be noted

2.12.1 Supporting documentation

Copies of additional supporting information for this assessment have been provided to INERIS and the IECEx Secretariat. These are included in a site assessment report and include:

Details of issues raised and how these have been resolved
Completed Technical Capability Document (TCD)
Photos of the facilities/tests witnessed, included in the TCD
Assessors' notes

Tests witnessed:

79-0 – IP66 test
79-0 – Surface resistance test
79-0 – Measurement of capacitance
79-1 – reference pressure
79-1 – overpressure test
79-1 – transmission test
79-11 – spark ignition test
79-11 – temperature rise on batteries
79-18 – dielectric strength test
79-31 – pressure test

2.13 Recommendations

Based on the assessment performed on 18-20 November 2015, INERIS is recommended for continued acceptance in the IECEx scheme as:

- An ExCB in the IECEx Certified Equipment Scheme with scope extension for ISO 80079-36 and 37
- An ExTL in the IECEx Certified Equipment Scheme with scope extension for ISO 80079-36 and 37
- An ExCB in the IECEx Conformity Mark Licensing System



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

Ron Webb	Heinz Farke
Lead Assessor	Expert Assessor

Date: 4 February 2016



3 ExCB for IECEx Certified Equipment Scheme

3.1 Assessment references

- a) IECEx02 IECEx Certified Equipment Scheme covering equipment for use in explosive atmospheres – Rules of Procedure
- b) OD003-2 Assessment, surveillance assessment and re-assessment of ExCBs and ExTLs operating in the IECEx 02, IECEx Certified Equipment Scheme
- c) OD005-1 IECEx Quality System Requirements for Manufacturers – Part 1: Guidance on the establishment and maintenance of a quality system
- d) OD005-2 IECEx Quality System Requirements for Manufacturers – Part 2: Audit Checklist. (This is available in a Word format for use by ExCBs)
- e) ISO/IEC 80079-34 Edition 1, Explosive atmospheres – Part 34: Application of quality systems for equipment manufacture
- f) OD009 Issuing of CoCs, ExTRs and QARs
- g) IECEx Document OD 025 Guidelines on the Management of Assessment and Surveillance programs for the assessment of Manufacturer's Quality Systems in accordance with the IECEx Scheme
- h) OD0026 IECEx Certified Equipment Scheme – Guidelines for the qualification of Lead Auditor and Auditors, in accordance with the IECEx System
- i) ISO/IEC 17065, General requirements for bodies operating product certification systems
- j) IECEx Document OD17 Drawing and documentation guidance
- k) IECEx Technical Capability Documents (TCD)
- l) ExTAG decision sheets (DSs)

NOTE The latest editions of the above documents were applied

3.2 ExCB persons interviewed

Name	Position
Dominique Charpentier	Certification division Manager
Olivier Cottin	Head of Ex Certification Unit
Malika Azni	Quality Assistant
Thierry Houeix	Ex Certification Officer


3.3 Associated ExTL(s)

The ExTL is integral with the ExCB.

3.4 Associated certification functions

INERIS is a notified body under ATEX. It also issues certificates for explosives and machinery. They do voluntary certification for function safety SILs to IEC 61508. They are a notified body for pyrotechnics. They also do certification of repair workshops and personnel competency for local INERIS schemes. They are an ExCB for personnel competencies.

3.5 National marks and certificates

INERIS is a notified body for the European ATEX directive 94/9/EC under which the  Mark is controlled. INERIS, as of June 2010, has been approved to issue the IECEx Conformity Mark License.

3.6 Standards accepted

See clause 1.5 of this report

3.7 National differences to IEC standards

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

3.8 Organisation

3.8.1 Names, titles and experience of the senior executives

Name	Title	Experience
Dominique Charpentier	Certification division manager	26 years, 8 in Ex
Thierry Houeix	Ex Certification Officer	<ul style="list-style-type: none"> Ex Certification Officer since 2007 Ex expert since 1995 SC31M ISO/IEC MT80079-34 MT Leader SC31M ISO/ MT80079-36 PT Leader
Olivier Cottin	Head of Ex Certification Unit	12 years in Ex

3.8.2 Name, title and experience of the quality management representative

Name	Title	Experience
Landa Reine	Quality manager	Since 2001

3.8.3 Name and title of signatories for certification

Name	Title	Comments
Dominique Charpentier	Certification division manager	26 years, 8 in Ex
Thierry Houeix	Ex Certification Officer	<ul style="list-style-type: none"> Ex Certification Officer since 2007 Ex expert since 1995 SC31M ISO/IEC MT80079-34 MT Leader SC31M ISO/ MT80079-36 PT Leader
Olivier Cottin	Head of Ex Certification Unit	12 years in Ex

3.8.4 Other employees in ExCB activity

Name	Title	Responsibility and Experience in Ex
Olivier Mirabel	Factory auditor	13 years
Eric Faé	Project Manager & Factory auditor	16 years
Claude Demaret	Project Manager	25 years
Florian Boquillet	Project Manager	3 years
Benjamin Goy	Project Manager	7 years
James Jessu	Project Manager	15 years
Fabio Morara	Project Manager	7 years
Marco Toninelli	Project Manager	3 years

3.9 Organizational structure

See Annex A



3.10 Administration

3.10.1 Administrative structure

Sufficient administrative assistance is provided

3.10.2 Indemnity insurance

INERIS holds professional indemnity and public liability insurance. These are covered in one policy from Allianz which was reviewed and found to be valid to 31 December 2015. The cover is considered acceptable.

3.11 Resources

There are appropriate resources in terms of buildings, equipment, services and trained personnel. A business plan is produced from which budgets are set and reviewed quarterly during the Directors' meetings. There is an annual appraisal system that helps ensure competent staff through identification of future training needs.

3.12 Committees (such as governing or advisory boards)

The composition and terms of reference of the Certification Committee are given in PR0864 (general requirement for committees) and DI0950 (specific requirements for ATEX and IECEx – The Ex Equipment Committee). The Ex Committee comprises representatives of manufacturers, users, standardisation and governmental interests with no single interest predominating. The content of the procedures meet the requirements of ISO/IEC 17065 and the IECEx requirements. Impartiality is also considered by IM1523.

3.13 Certification operations

3.13.1 National approval/certification methods

The national certification system for Ex products is that of the ATEX directive 94/9/EC. Under the directive Zone 0 and Zone 1 electrical products are required to undergo type examination by a notified body with the manufacturer of the products being subject to quality assurance monitoring or product verification by a notified body. Because there is no requirement for a notified body to undertake design and manufacturing conformity assessments, the European ATEX system cannot be regarded as a true Type 5 system. The standards and methods used for the various conformity assessment activities do, however, relate closely to those employed within IECEx.

3.13.2 Certification policy

The Quality Manual is available in the website and in printed form. It contains a quality policy that makes reference to product certification. Further aspects related to certification policy are covered in procedures PR0861, PR0868 and PR0864 and were seen to be in conformity with the requirements of ISO/IEC 17065 and IECEx 02

3.13.3 Application for certification

The applicant can ask for an application for certification by any method, including by e-mail, in person, by writing etc. Once this is done a technical and commercial offer is sent to the applicant.

By issuing his purchase order, the customer admits having knowledge of the sales and certification general and specific terms applicable to INERIS as stated in the offer.

The approach is laid out in procedure PR0868. This procedure was checked and found to meet the requirements of the IECEx

3.13.4 Certification decision

In principle, the certification decision is taken by INERIS General Manager (Raymond Cointe), but he has delegates who are:

- Christian Michot – Chief Certification Officer
- Dominique Charpentier – Certification Division Manager
- Thierry Houeix – Ex Certification Officer
- Olivier Cottin - Head of Ex Certification Unit

The above is documented in the PR0861 clause 12 and PR0868, clause 12. Normally for Ex product certification Thierry Houeix is the independent reviewer and he takes the decision based on the ExTR and the certification file, but other persons listed can also sign the ATEX and IECEx certificates. Only Thierry Houeix has access to the level 1 password to make the certificate current. The competency matrix DI-1213 shows him as the only person with the authority to carry out this action

3.13.5 Suspension and cancellation of certificates

The suspension of certificates rules is well defined in PR0868 document and there is specific reference as to how this relates to the IECEx System.

3.14 Certificates issued

Number of certificates issued under for the preceding four years for each type of protection.

Standards	Title	2015	2014	2013	2012	2011
	Number of CoCs	121	126	106	72	56
60079-0	General requirements	121	126	106	72	56
60079-1	Flameproof enclosures 'd'	86	104	66	51	43
60079-2	Pressurized enclosure 'p'	4	3	6	0	0
60079-5	Powder filling «q»	1	0	0	0	0
60079-6	Oil immersion «o»	0	0	0	0	0
60079-7	Increased safety "e"	36	41	29	12	28
60079-11	Intrinsic safety "i"	47	44	44	21	14
60079-15	Type of protection "n"	7	4	11	6	2
60079-18	Encapsulation "m"	8	3	3	3	1
60079-25	Intrinsic safety System	2	1	0	0	0
60079-26	Protection level (EPL) Ga	1	8	14	4	4
60079-27	Fisco	0	0	0	0	0
60079-28	Optical	0	0	0	0	0
60079-31	Enclosure "t"	73	79	60	48	20
61241-0	General requirements D	0	0	0	3	25
61241-1	Enclosure "tD"	0	0	0	3	25
61241-11	Intrinsic safety 'iD'	0	0	0	0	5
61241-18	Encapsulation "mD"	0	0	0	0	0
EN 13463-xx	Non-electrical equipment *	22	21	38	19	12



* Non-electrical certificates for ATEX Category 1

ISO 80079-36+37: Regarding non-electrical equipment, INERIS have extensive experience conducting testing and assessments of non-electrical equipment under the ATEX Directive

During the site assessment visit as part of the review of completed files, the assessment team reviewed a number of test files including those associated with non-electrical equipment in line with the draft IECEx Guides prepared by WG15 and found that the files were complete and assessments were conducted in line with the draft ISO Standards and IECEx Guide.

3.15 National accreditation

INERIS has COFRAC accreditation to ISO/IEC 17065 as a certification body. The certificate is valid until 31 December 2015 and a copy is shown at Annex B of this report. The link to the Cofrac site is <https://www.cofrac.fr/annexes/sect5/5-0045.pdf>

3.16 Assessment of manufacturers and issue of QARs

Procedure PR0861 addresses assessments of manufacturers. The report format includes the all requirements from the IECEx Scheme together with ATEX requirements.

For ATEX and IECEx certification schemes a set of documented procedures is in place to enable surveillance to be carried out in accordance with the criteria of the certification systems. The requirements for manufacturing surveillance activities (including initial and ongoing inspection of product during manufacture, audit of quality system and audit of products) are detailed within the relevant scheme rules and in relevant PR0061 procedures.

3.17 Comments (including issues found during assessment)

Minor issues were found which were cleared to the satisfaction of the assessment team during the visit.

These included:

- the reference to instructions in the certificate
- The correct use of templates
- The need to keep paper documents (records) secure.

No issues requiring action remained after the visit

4 ExTL for IECEx Certified Equipment Scheme

4.1 Assessment references

- m) IECEx 02 IECEx Certified Equipment Scheme covering equipment for use in explosive atmospheres – Rules of Procedure
- n) IECEx OD003-2 Assessment, surveillance assessment and re-assessment of ExCBs and ExTLs operating in the IECEx 02, IECEx Certified Equipment Scheme
- o) IECEx OD009 Issuing of CoCs, ExTRs and QARs
- p) ISO/IEC 17025:2005 Edition 2, General requirements for the competence of testing and calibration laboratories
- q) IECEx Document OD17 Drawing and documentation guidance
- r) IECEx Technical Capability Documents (TCD)
- s) ExTAG decision sheets (DSs)

NOTE The latest editions of the above documents were applied.

4.2 ExTL persons interviewed

Name	Position
Bernard Piquette	Ex TL Manager
Thierry Delbaere	Head of ATEX unit
Stephanie Lemaire	Quality Assurance Manager for ATEX and IECEx testing laboratory
Reine Landa	Quality and Metrology Manager
Claude Demaret	IS Assessor
Eric Gillet	IS Assessor and Tester
Eric Mager	Ex Assessor and Tester
Fabio Morara	IS and Ex Assessor
James Jessu	Ex Assessor and Tester
Malik Amimar	Team Manager
Xavier Ceschini	Technician
Maxime Berthaud	Technician
Zameer Abdoul	Technician
Vincent Griffon	Technician
Yannick Ollier	Technician

4.3 Associated ExCB(s)

The ExTL is integral with the ExCB

4.4 Organisation

4.4.1 Names, titles and experience of the senior executives

Name	Title	Experience
Bernard Piquette	Ex TL Manager	32 years
Thierry Delbaere	Head of ATEX unit	10 years

4.4.2 Name, title and experience of the quality management representative

Name	Title	Experience
Reine Landa	Quality and Metrology Manager	14 years
Sylvie Ponthieu	Quality Manager for	9 years

Name	Title	Experience
	Accidents and Risk Division	
Stephanie Lemaire	Quality Assurance Manager for ATEX and IECEx testing laboratory	14 years

4.5 Organizational structure

See Annex A

4.6 Resources

The Ex operation at INERIS has several professional and technical staff involved in Ex testing. It has a comprehensive range of testing equipment and good facilities for this type of testing.

4.7 Test reports issued

Number of test reports (ExTRs) issued under for the preceding four years for each type of protection.

Standards	Title	2015	2014	2013	2012	2011
Year	Number of ExTRs	112	126	108	77	44
60079-0	General requirements	112	124	108	77	44
60079-1	Flameproof enclosures "d"	78	106	66	46	34
60079-2	Pressurized enclosure «p»	3	0	5	5	0
60079-5	Powder filling «q»	1	0	0	0	0
60079-6	Oil immersion «o»	0	0	0	0	0
60079-7	Increased safety "e"	33	39	28	15	17
60079-11	Intrinsic safety "i"	45	41	45	29	13
60079-15	Type of protection "n"	8	4	11	5	1
60079-18	Encapsulation "m"	8	3	1	2	2
60079-25	Intrinsic safety System	2	1	0	0	0
60079-26	Protection level (EPL) Ga	1	7	13	7	3
60079-27	Fisco	0	0	0	0	0
60079-28	Optical	0	0	0	0	0
60079-31	Enclosure "t"	64	81	62	45	18
61241-0	General requirements D	2	0	1	2	13
61241-1	Enclosure "tD"	2	0	1	3	13
61241-11	Intrinsic safety 'iD'	0	0	1	1	3
61241-18	Encapsulation "mD"	0	0	0	0	0
EN 13463-xx	Non-electrical equipment *	22	21	38	19	12

* Non-electrical project reports for ATEX Category 1



4.8 National accreditation

INERIS has accreditation from COFRAC: Certificate No 1-0157 to NF EN ISO/IEC 17025. A copy of the accreditation is attached at Annex C. The link to the Cofrac site is: <https://www.cofrac.fr/annexes/sect1/1-0157.pdf>

4.9 Calibration

The majority of test equipment is sent out for calibration by an external calibration facility. These calibration facilities are COFRAC accredited. The exception to this is equipment for measuring temperature and pressure which are done within house by INERIS. All test equipment examined had an indication of the calibration status. Original copies of the calibration certificates for all apparatus are stored at the facility in which the test equipment resides. A database also exists for equipment indicating the calibration status. This database can be interrogated to determine which equipment needs to be re-calibrated. A random sample of the test equipment used in Ex was chosen and the records for these examined.

4.10 Proficiency

INERIS partakes in the Proficiency testing organised by PTB. The results of the reference pressure tests and the temperature rise tests show that they are achieving good results.

4.11 Comments (including issues found during assessment)

Minor issues were found which were cleared to the satisfaction of the assessment team during the visit.

These included:

- The need to correctly complete the test report to explain the reasoning both for 'PASS' and for 'N/A'
- To completely define the test requirements when subcontractors are used
- To correctly specify the characteristics of one of the dust chambers
- To complete a procedure for thermocouple preparation and use based on TAG DS 2015/011
- As a result of the reduction in equipment calibration interval to ensure that equipment is adequately marked
- To clarify in the procedure for the capacitance test the need to eliminate, as far as possible, the effects of stray capacitance
- To consider the calibration period required for the surface roughness test equipment

No issues requiring action remained after the visit



5 IECEx Conformity Mark Licensing System

5.1 Assessment references

- a) IECEx04 IECEx Certified Equipment Scheme covering equipment for use in explosive atmospheres – IECEx Conformity Mark Licensing System – Regulations
- b) IECEx04A IECEx Certified Equipment Scheme covering equipment for use in explosive atmospheres – Guidance for making applications for and use of IECEx Conformity Mark
- c) OD022 IECEx Certified Equipment Scheme covering equipment for use in explosive atmospheres – Rules and Procedures for the granting of Licenses to issue and use the IECEx Conformity Mark
- d) OD023 IECEx Certified Equipment Scheme covering equipment for use in explosive atmospheres – Terms and Conditions for use of the IECEx Conformity Mark

NOTE The latest editions of the above documents were applied

5.2 Comments (including issues found during assessment)

There have been 10 requests for the Mark and 6 have been issued. These were viewed on the IECEx website.

The application details and signed agreements for INE007 were viewed and found to meet the requirements of the IECEx.

6 Annexes

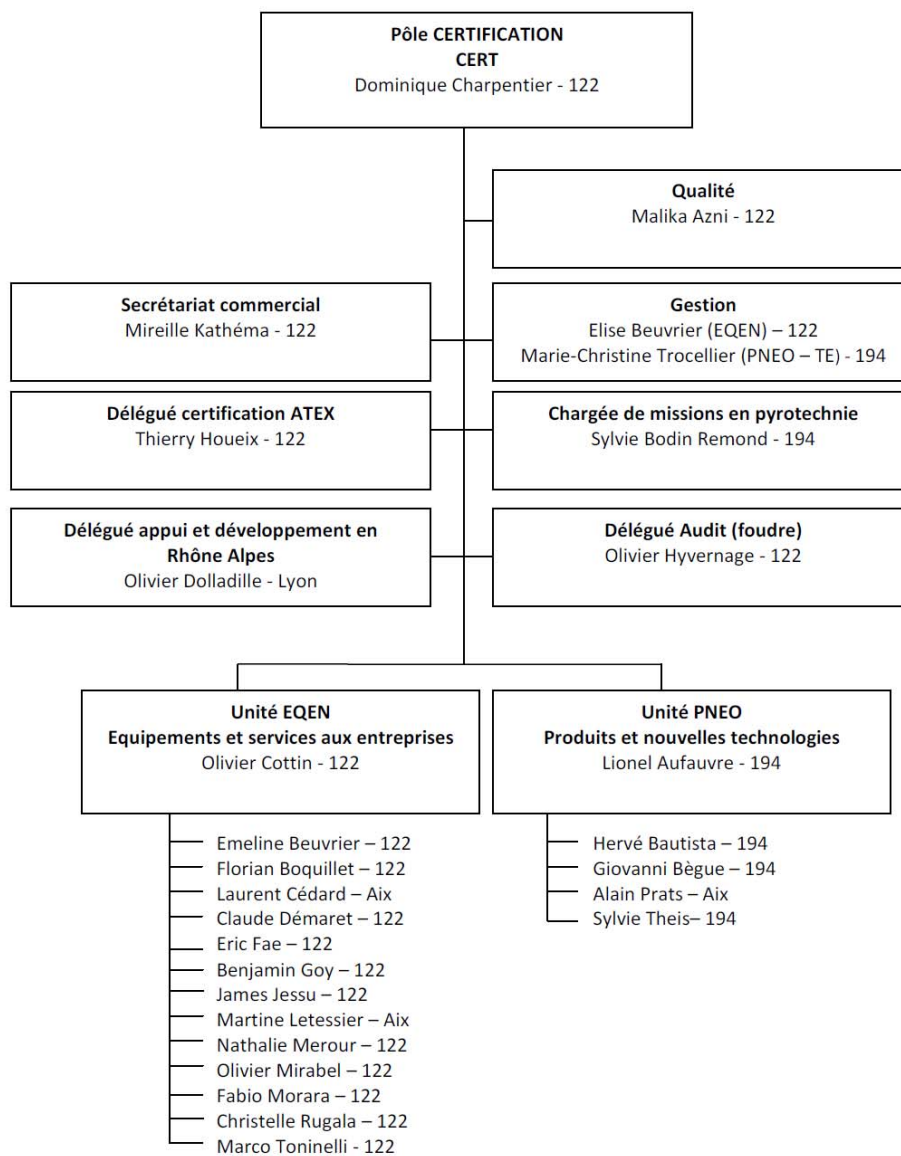
See Contents. (add, modify or delete annexes as necessary). Please note the following instructions for the IEC template:

NOTE When creating a new annex **DO NOT** type the word Annex, just create a new empty page and then apply the styles ANNEX_title to the first (empty) line. The word "Annex" followed by the letter "A" or "B", etc will automatically appear.

Annex A Overall Organisation Chart



Ce document a été émis et est géré par CERT



Nota : Christian MICHOT, rattaché à DSCG, occupe en plus de ses missions, la fonction de Délégué Général Certification (DI-1278 « Organigramme de la DSC »)

Annex B
Accreditation Certificate for ISO/IEC 17065

COMITE FRANCAIS

D'ACCREDITATION

cofrac
CERTIFICATION
DE PRODUITS
ET SERVICES

INERIS

Parc Technologique Alata

BP 2

60550 VERNEUIL EN HALATTE

est accrédité
is accredited

par la section Certifications
by section Certifications

selon la norme NF EN ISO/CEI 17065:2012 et les règles d'application du Cofrac
sous le numéro

in compliance with ISO/IEC 17065:2012 standard and the Cofrac rules
of application under n°

5-0045

Les activités couvertes et la validité de l'accréditation ainsi que les sites concernés sont précisés dans l'attestation en vigueur qui lui a été délivrée, disponible sur www.cofrac.fr.
Durant cette période, l'organisme s'engage à respecter à tout moment les exigences de l'accréditation.

The activities covered and the validity of accreditation as well as concerned sites are stipulated in the accreditation certificate in force which has been issued with it, available on www.cofrac.fr.
During this period, the organisation undertakes to abide at all times by the requirements of accreditation.

Le Directeur Général
General Director



Bernard DOROSZCZUK

CERT CPS FORM 11 – Rév. 01 – Novembre 2013



5-0045 Rev 12.pdf

Annex C
Accreditation Certificate for ISO/IEC 17025

COMITÉ FRANÇAIS D'ACCREDITATION

cofrac
ESSAIS

Diplôme d'accréditation

Ce document atteste que :

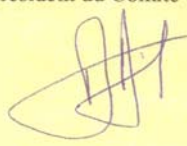
INERIS
Parc Technologique Alata
B.P. n° 2
60550 VERNEUIL EN HALATTE

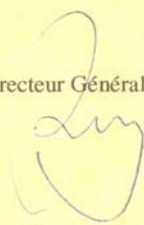
est accrédité par la Section Laboratoires du Comité Français d'Accréditation pour effectuer des prestations d'ESSAIS ainsi que pour procéder aux activités traitées de façon modulaire par la norme NF EN ISO/CEI 17025, précisément définies dans l'annexe technique

N° 1-0157

et délivrer des documents d'essais portant le logotype du Cofrac pour lesdites prestations et activités.

La validité de l'accréditation est précisée dans l'attestation d'accréditation ou dans son avenant en vigueur. Durant cette période, le laboratoire s'engage à respecter à tout moment les exigences d'accréditation du COFRAC, en tout point conformes à la norme NF EN ISO/CEI 17025.

Le Président du Comité de Section : 

Le Directeur Général du Cofrac : 



1-0157 Rev 3.pdf