



## **INTERNATIONAL ELECTROTECHNICAL COMMISSION**

### **IEC SCHEME FOR CERTIFICATION TO STANDARDS FOR SAFETY OF ELECTRICAL EQUIPMENT FOR EXPLOSIVE ATMOSPHERES (IECEx SCHEME)**

**Ex Management Committee, ExMC**

### **Report from Working Group WG1 – Revision of IECEx 02**

#### **IECEx 02 - Rules of Procedure of the IEC Scheme for Certification to Standards for Electrical Equipment for Explosive Atmospheres (IECEx Scheme)**

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#### **Introduction**

This document contains a report of the Working Group, WG 1 meeting held on 25 and 26 April 2002, in Geneva.

The report is issued to Members of ExMC and ExTAG for information purposes.

You will note from the report, that WG 1 is to issue a proposal, towards the end of May, concerning the revision of IECEx 02, IECEx Scheme Rules and Procedures, for consideration by ExMC and ExTAG Members.

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# **Report of Working Group, WG 1 Meeting**

**MEETING DATE:** Thursday 25 and Friday 26 April 2002

**LOCATION:** IEC Central Office Meeting Rooms  
3, rue de Varembe Geneva,  
Switzerland

**ATTENDANCE:**

**Mr C Agius, IEC ExMC Secretary and WG1 Convener**  
**Mr H Berger, IECEx Treasurer, SEV (CH)**  
**Mr I. Cleare, EECS (GB)**  
**Mr J. Gryn, CSA International (CA)**  
**Dr U. Klausmeyer, PTB (DE)**  
**Mr J. Munro, TestSafe and TC 31 Chairman**  
**Mr B. Vries, KEMA (NL)**  
**Mr R. Wigg, Gerard Industries (AU)**

Apologies were received from:

Mr M. Brenon, Secretary IEC ExTAG (FR) – with comments  
Mr J. David, SAI, (AU) – with comments  
Mr I. Vanatoru, INSEMEX (RO) – with comments  
Mr P. Bremer, SP (SE) – with comments  
Mrs Bo, (CN)

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## **Background**

WG1 was formed by the IECEx Management Committee, ExMC, to consider a revision of the IECEx Rules and Procedures. During the 2001 Bern meeting of the ExMC, WG1 was requested to consider the revision in the following two stages:-

- 1) Development of Enhanced rules to the transitional phase
- 2) Proposal for the complete revision of the IECEx 02 Scheme rules and procedures

Refer to 2001 ExMC minutes (ExMC/113/RM) for details.

## **Report of the meeting**

### **1) Introduction**

Mr Agius as WG1 Convener welcomed WG1 Members noting apologies and comments received from WG 1 members.

The Convener outlined the task for this meeting as detailed in the meeting agenda (ExMC WG1/02/DA) and minutes of the ExMC 2001 Bern meeting.

### **2) Implementation of ExMC Decisions from Bern 2001 meeting (Stage 1 Revision of Scheme Rules and Procedures)**

The meeting reflected over the decisions of the ExMC 2001 Bern meeting and addressed the following key issues:-

- **Enhanced Rules for Participation at Transitional Level**
- **Introduction of new IECEX Type Examination Certificate**
- **Introduction of assessment of manufacturer's Ex quality system**
- **Comments from ExMC Members detailed in ExMC/95A/CC**
- **Comments submitted from WG1 Members**
- **Other items detailed in ExMC/113/RM section 6 and 7**

A considerable amount of time was spent discussing the practical process of the current Transitional Phase of the IECEX Scheme, including the preparation and issuing of IECEX Assessment and Test Reports (ATRs) by Accepted Certification Bodies, ACBs. The discussion highlighted a number of issues such as:

- Possible confusion in the roles between ACB and ExTL
- The responsibilities of both ExTL and ACB
- Time taken to complete detailed evaluation records
- The need for a receiving ACB to have sufficient information in order to make an informed judgment
- The expectations of manufacturers and users of Ex equipment

A practical demonstration on the completion of an ATR and associated evaluation record was conducted.

The meeting also noted the ExMC decision to allow an ExTL to use its own test report format to be attached to a detailed Section 1 of the ATR where detailed Evaluation Record Templates are not yet available. The meeting discussed the need for the Section1 checklist to be more detailed in such instances, as a means to demonstrate that each and every requirement of the standard has been satisfactorily addressed.

The meeting noted the availability of all ATR templates on the IECEX website.

### **3 Review of Current IECEx Transitional Arrangements – Enhanced Rules**

A review of the current IECEx transitional arrangements was conducted during the meeting, in light of the ExMC Bern meeting decisions and the role that the transitional arrangements play in providing a streamlined approach to national certification of Ex equipment.

The meeting noted current work of IEC TC 31 and the fact that “certification” is to be included in the new generation IEC 60079-0. It was suggested that IECEx should demonstrate a synergy between the ACB and ExTL assessments and the accreditation provided by accreditation bodies and the need to ensure that IECEx is following the appropriate ISO/IEC Guides and Standards.

The meeting felt that caution needs to be exercised in the manner with which the IECEx Transitional Phase is presented to the marketplace, noting that while the transitional phase supports certification, it is currently not a true certification scheme as defined by ISO/IEC Guide 65. In some areas the transitional phase is seen as an international accreditation system rather than an element of a certification scheme.

The meeting then discussed the task assigned by ExMC regarding the introduction of an IECEx Certificate to be made available during the transitional phase of the scheme.

In discussing the framework to support the availability of an IECEx Certificate “Type Examination Certificate” the meeting reflected over the following issues:-

- Decisions of the ExMC 2001 Bern meeting
- The current rules of IECEx 02
- Previous comments from ExMC Members (ExMC/95A/CC)
- The role and possible misuse of a Type Examination certificate
- Compliance with ISO/IEC Guides and Standards on Conformity Assessment

It was at this point that the meeting felt that while the introduction of an IECEx Type Examination Certificate may help to solve immediate problems associated with the completion and issuing of ATRs, it does not solve the broader issue of promoting true standardization of Ex product design and certification.

Therefore the meeting felt that resources should be spent on revising the IECEx Scheme rules in a manner that will enable the IECEx Scheme to operate as a true certification system with provision for an International IECEx Certificate of Conformity and Mark.

The meeting reflected over its terms of reference and tasks assigned by the ExMC noting that the overall revision of the IECEx Scheme is within their role.

#### 4 Review of IECEx Scheme Concepts to Facilitate introduction of an IECEx Certificate of Conformity

The meeting then commenced discussions on a possible way by which the immediate needs of industry and regulators for an IECEx Certificate to be made available as well as the broader issue of facilitating expansion of the IECEx Scheme to provide longer term benefits for all users and stakeholders of IECEx.

In discussion the meeting identified the following reasons why changes to the current IECEx Scheme arrangements are necessary:-

##### Reasons for Change

- Current arrangements are too confusing for manufacturers and regulators
- Need for a Certificate as a defined output of the process, that is available now
- Having a certificate provides promotion of the scheme and its members
- Recognition of IECEx in non-participating countries
- Alignment with existing national and international Schemes
- Alignment with ISO/IEC Guides and Standards
- Current two levels of participation for ACBs should relate to output and not ACB capability
- Providing a clear focus on IEC standards in the Ex field
- Emphasizing the convergence between national and IEC Standards
- Provides immediate benefits to the scheme's customers through access to an IECEx Certificate of Conformity
- Need to clarify the roles of the scheme's operators, ExTLs and ACBs

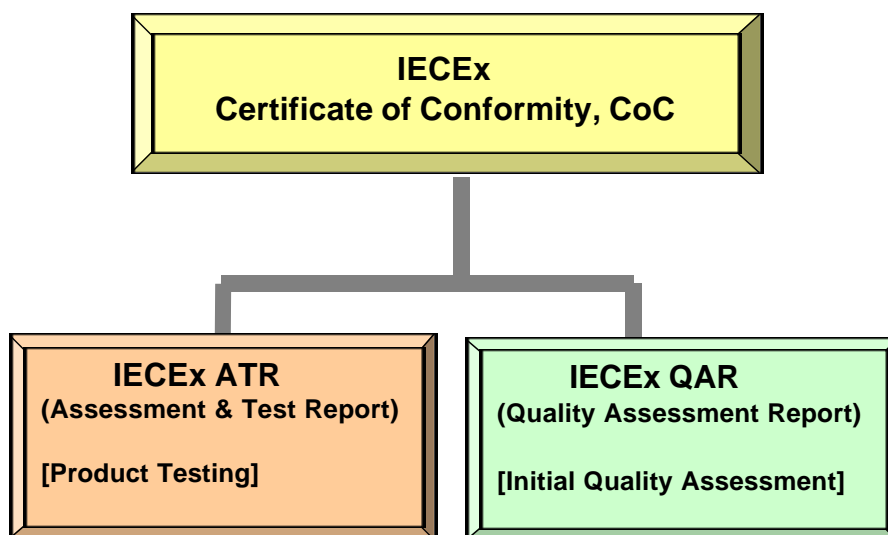
The meeting then considered the basic framework of the current Scheme as detailed in the current edition of IECEx 02 and felt that the basic structure for "Full Participation" in the Scheme was sound but a number of items need to be revised, such as:-

- **Removal of Clause 5.4 in IECEx 02** This clause currently prevents an ACB from issuing IECEx Certificates of Conformity until their National Committee achieves full alignment with IEC TC 31 Standards. The meeting felt that removal of this restriction promotes the availability of an IECEx Certificate of Conformity will further assist in the convergence between national and IEC Standards.
- **Inclusion of an IECEx Quality Assessment Report** for the assessment of manufacturer's Ex quality systems. In the same manner as IECEx provides for common approaches to product testing and assessment, there is a need to ensure a common approach to the assessment and reporting of Ex manufacturer's quality system. The meeting noted that WG5 have progressed this work significantly.

- **Revision of ACB assessment procedures** To ensure that the IECEx assessment process adequately address the ACB's ability to competently conduct assessments of manufacturer's Ex quality systems.
- **Confidence Building.** The current transitional arrangements provide an inbuilt confidence building system through peer assessment of ATRs. This supplements the initial assessment of ExTLs and ACBs and provides the basis for achieving greater uniformity in approach. The Working Group recognised the value of this provision which will need to be considered along with the proposed move to immediate participation at the full level.
- **Expansion of the IECEx Scheme Scope** To review the scope of the IECEx Scheme to ensure that the needs of the international Ex community are adequately serviced and that the Scheme covers additional areas to assist industry, e.g. product standards produced by TC 31 and other IEC TCs and SCs.

The meeting also discussed the current work of WG 8 in seeking regulatory recognition of IECEx noting that a change in this direction will greatly assist in presenting IECEx as a true International model for adoption by regulatory agencies.

In conclusion, the meeting felt that removal of the current restriction to full participation would result in a combining of the current "Transitional Level" and "Full Level" into one single International Certification Scheme providing the following Scheme outputs:



The meeting agreed that while both an IECEx ATR and IECEx QAR are required to be completed before an IECEx CoC can be issued, the individual ATR or QAR could be used on their own and submitted to a receiving National Certification or Approval Body to obtain approval or certification at national level.

The meeting then discussed the possible roles for ACBs and ExTLs under such an arrangement and agreed that the ExTL issues the ATR, to its associated ACB the ACB completes the QAR and issues the IECEX CoC.

The meeting conducted a detailed SWOT analysis (Strengths, Weakness, Opportunities and Threats) of this concept and concluded that the Strengths and Opportunities far outweigh the weakness and any threats. The meeting then agreed to put forward a proposal to ExMC for consideration.

## **5 Actions and work program arising out of WG 1 meeting**

The meeting determined the necessary actions and work program arising from the WG 1 meeting and agreed to the following:-

<b>May 31 2002</b>	WG 1 issues Concept document to ExMC and ExTAG for comments
<b>July 21 2002</b>	Closing date for comments from ExMC and ExTAG members
<b>August 25 2002</b>	WG1 issues draft amendment to IECEX 02 for comment
<b>October 11 2002</b>	Close date for ExMC and ExTAG comment
<b>October 25 2002</b>	ExMC meeting, Seoul

## **6 Close of Meeting**

In closing the meeting the Convener thanked members for their attendance and valuable contributions and commented that the significant achievements made over the past 2 days could only have been made as a result of taking the time to come together as a group and exchange ideas and views.

He then wished members a safe journey back home.

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