



ExMC/144/CD
2002 10

INTERNATIONAL ELECTROTECHNICAL COMMISSION

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

For Consideration by Members of the IECEx Management Committee, ExMC

This document contains a proposal from the UK Member Body for discussion under Agenda Item 8 of ExMC/127A/DA

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L/10: THE UK Ex FORUM

(A Committee of the British Electrotechnical Committee)

The Association for the British
Electrotechnical Industry

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Proposal by GB for auditing of the work of ACB's and Ex TL's

Checking of ACB and Ex TL Reports and Certificates

Background

It is known that throughout the world where standards are used for certification and testing, different interpretations and understandings are placed not only on the requirements in the clauses, but also on the tests and how they should be conducted together with the results expected. The depth of the problem is illustrated by the number of interpretations which have been made in Europe, first by HOTL and now by the "Notified bodies group" under the ATEX directive. These are available on the ATEX web site.

As there are an increasingly large number of bodies both well resourced and established, and more recent and less well known, operating under the scheme GB believes that a form of auditing is needed. This would underpin the scheme and establish a greater degree of credibility during the early years.

In particular, now that IEC Ex has accepted a two-tier approach to the scheme i.e. fully compliant with the IEC or compliant with differences, it is considered that interpretation and variable degrees of depth in assessment will become problems. It is necessary to ensure not only that all points required have been included in the reports but also that common interpretations and test method are applied. In particular where the ACBs and ExTLs do not fully comply with IEC requirements and have different test requirements, how it has been considered that the product being certified complies with the IEC such that transparency of the document is achieved.

It will be necessary to set up an interpretation scheme similar to that operating in Europe. As the standards are only slowly being revised to eliminate anomalies the Europe data base could be adapted. However all standards contain new material and further anomalies can arise. This means that an ongoing scheme is needed.

Proposal : Audit

We have considered that we introduce a scheme where an independent expert person or panel prior to final issuing of documentation to the manufacturer checks ACBs or ExTLs outputs.

However we consider that this would be excessively expensive and time consuming.

It would also be possible to audit work on a selective basis after it had been issued. The problem would be that faulty work would need to be updated, perhaps re-tested and even rescinded. This would lead to commercial problems.

It is therefore proposed that 10% of certificates and test reports are subject to audit before issue. This would be done by an independent expert person or panel as appropriate and designed to be completed in 14 days or less.

It is accepted that there will be costs associated with the introduction of this requirement, however these costs should be limited to at best one days work. It is proposed that the cost is borne by the relevant ACB or ExTL and not the customer directly. It is hoped that this charge will encourage test and certification bodies to accept common test procedures and interpretations and also those not fully compliant to move quickly to a common standard.

Ex TL's and ACB's would advise the Ex MC of certificate and test report references immediately on completion but before issue. Ex MC using a random system would do the selection of the 10% average for a particular body. Using modern data communication it should be possible for documents to be transmitted back and forth extremely quickly.

As with all auditing systems, frequency of audit could be varied above a selected minimum, say 4%, by looking at the experience of the work of a particular body.

Summary

GB feel that it is absolutely necessary to establish both an auditing system and an issued list of interpretations.