

INTERNATIONAL ELECTROTECHNICAL COMMISSION

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

**DRAFT MINUTES OF THE ExTAG BERN MEETING
8th to 9th OCTOBER 2001**

| NAME | COUNTRY | POSITION in Delegation Head Delegate/ Delegate |
|--|----------------------------|---|
| Dr Wolf Dill Mr Michel Brenon | DE FR | Chairman Secretary ExTAG |
| Mr R Wigg Mr J Munro Mr J Birch Mr J David Mr D Gray | AU AU AU AU AU | Head Delegate Chairman TC 31 Delegate Delegate Delegate |
| Mr J Gryn (ExMC Vice-Chairman) Mr B Shao | CA CA | Head Delegate Delegate |
| Mr H Berger (Treasurer) | CH | Head Delegate |
| Dr U Klausmeyer Mr K Schwedt | DE DE | Delegate Delegate |
| Mr J Nittegaard | DK | Head Delegate |
| Mr R Sulonen | FI | Head Delegate |
| Mr B Piquette | FR | Delegate |
| Mr J Hanko Mr Bela Csonev | HU HU | Head Delegate Delegate |
| Mr Y K Kim Mr H D Kim Mr H-K Chung | KR KR KR | Head Delegate Delegate Delegate |
| Mr B Vries | NL | Head Delegate |
| Mr T Andersen Mr R Hoel | NO NO | Head Delegate Delegate |
| Mr V Grudtsyn Mr P Shumilikhin Dr A Zalogine | RU RU RU | Head Delegate Delegate Delegate |

| NAME | COUNTRY | POSITION in Delegation Head Delegate/ Delegate |
|-------------------------------------|----------|---|
| Mr P Bremer | SE | Head Delegate |
| Mr I Likar | SI | Head Delegate |
| Mr K McManama Mr J Rennie | US US | Head Delegate Delegate |
| Mr R Viljoen | ZA | Head Delegate |
| Mr Chris Agius Ms Christine Kane | | Secretary ExMC Assistant Secretary ExMC |

IECEX Scheme

ExTAG Secretariat

5th Meeting of ExTAG Draft Report Berne(Switzerland) 2001-10-8 and 9

1 Opening and Welcome

The ExTAG Chairman, Dr Dill, welcomed all participants and reminded the difficult environment of this new era marked in 2001 by sad events and had a word of sympathy to the US colleagues in the name of the ExTAG group

Mr Heinz Berger pronounced kind words of welcome to the participants and briefly introduced SEV.

Apologies from Romania and Ian Cleare for not attending are noted.
C.Agius as ExMC Secretary informed ExTAG that US and Finland are new members of IECEX.

2 Approval of the Agenda

See ExTAG/09-D/DA.

Agenda is approved. No additional subjects were raised.

3 Minutes of the 4th ExTAG Meeting

- 3.1 To note the confirmed minutes of the fourth (4th) Meeting of ExTAG Braunschweig (Germany) 200/09/4-5
See ExTAG/07/RM.

Minutes are noted

- 3.2 Matters arising from these minutes.
None

4 New Applicant Status Short Review.

C.Agius commented briefly on the topic that will be developed in more detail within ExMC.

5 Assessment of ExTL Short Review.

C.Agius informed the meeting that this would be further developed in ExMC .
He reminded that the assessment process is an essential element to install the credibility in the scheme

No specific questions were raised.

- 5.1 Information on actual process.
5.2 Status review.
5.3 Observations and suggestions to be possibly made to ExMC.

6 Working Group Status-Review.

- 6.1 IECEX TAG WG1 (Report by P.Smith)
P.Smith is not attending Bill Shao gives the report.
See report given as green document ExTAG(Bern/CSA)04

Attention is drawn on:

Status of decision 00/02: Continuous target

Status of decision 00/04: continuous process to be updated in the light of IECEx02 proposed modifications

Status of decision 00/05: done

Status of decision 00/08: see review below

Status of decision 00/10: No comments received by WG1

Decision of ExTAG is to maintain Word97 as common platform.
Word 2000 should be applicable for test purposes.

Comments:

60079-15 (2001-02): ATR for "n" was under the responsibility of EECS (Ron Sinclair). Due to the situation that evolved from information given by EECS it was discussed if another volunteer should be nominated to this task. Clarification will be asked from Ian Cleare (EECS) during the ExMC meeting.

AU bodies advised ExTAG members that they have withdrawn from participating in the use of this standard, same for USA at local level acceptance.

It's the case of a standard accepted in IEC but not accepted by a large number of participants.

This may be an issue to the IEC ExMC

ExTAG considers unanimously transferring this issue to the ExMC for consideration (e.g.: revision of IECEx 01)

60079-1(1998-08) ED 3.2: PTB is volunteer to up date the ATR accordingly.

60079-2(2001-02): Will need another volunteer than DMT that wrote the first ATR on this issue, as DMT will transfer its offices and will have no time. Therefore a volunteer is sought: KEMA accepts to the update

60079-7 will have a third edition expected in one year, so it is possible to wait until next meeting to request a volunteer to update the corresponding ATR. It is suggested that PTB could check. PTB accepts this task.

60079-11 Ed 2:

In relation to the above standard, taken as practical example, Test Safe noted the problem of the actual content that may not be sufficient for the receiving laboratory.

General comment: Perhaps is there a need to co-ordinate the work in order to assess that the content is assumed to be acceptable: Validation of acceptance
May be an issue.

Suggestion is made that P.Smith could be in charge of such an issue.
CSA to check if possible and to confirm to the EXTAG secretary.

PTB notes it also exists the problem of the link with "Decision sheets " that are related to the concerned standard.

It was decided that these issues have to be covered in more detail by an ad-hoc working group constituted by: J Munro, P. Bremer, and W. Dill.
The outcome shall be presented at the next meeting.

61241/4 March 2001: Kerry McManama volunteers to contribute to the ATR.
Within ?

61779-1 ATR to be produced by DMT

It is noted that the general secretariat will produce the updated checklist referred to as section one

6.2 IECEX TAG WG 3 Documentation (Report by J.Birch). Jim Birch passed an electronic copy of the document to the EXTAG secretary for distribution to members.

6.3 IECEX TAG WG 4 Uncertainty of Measurement (Report by R.Jacobi)
Attention is drawn on Status of decision 00/12.

Roy Jacobi reported in e-mail that no comments were received so far.
Also due to change in responsibility in his organisation he resigned from his position of convenor.

The question is raised to know if this topic is to be maintained and consequently if a new convenor is to be nominated.

The ExTAG chairman reminded that this an issue that is often dealt by accreditors.
The IECEX Secretary reminded that it is an issue dealt also by ILAC
And concluded that ExTAG should takes seriously this matter.

The group is invited to give its views:

PTB refers to a guide document they have developed internally and that they are currently using as a good tool for classification of accuracy of instruments. And it is suggested to recommend that each laboratory do the same screening.
CSA reported experience derived from various areas (e.g. IECEE) to restrict the consideration of measurement to the accuracy of the instrument.
Chairman suggested that this might be a track that can be explored by the group.

Hungary reminded that measurements are greatly affected by other parameters (human factors, gas composition, and humidity control) than those strictly related to the instrument finally effecting the actual measure.
AU would like to have the term of references to be precise again knowing it has been already set in document ExTAG/08/INF in Braunschweig.
Upon displaying it again, it is agreed by the group that no changes is to be made to the original terms of reference

Table circulated by Roy Jacobi is to be reviewed to align its content to the term of reference by the WG and to recalculate the new draft to the whole group.

Volunteer to convene: Ulrich Johannsmeyer is envisaged, for at least one year. To be confirmed to the secretary by Uwe Klausmeyer.

It is noted that the group has considered the question of proficiency testing issues.
For the moment being it is felt that it is an issue to be possibly raised at ExMC as it is a part of the credibility of the Scheme.

7 Technical Discussions

- 7.1 Discussion related to document ExTAG/05/CD (Report by W.Dill)
July 2000

Attention is drawn on : Status of decision 00/17
Status of decision 00/20.

No comments received so far. The group presents no comments.
DMT is OK to presents an update of this decision due to various evolution.
(E.g.: Changes in the standard)
DMT to re-circulate the draft for comments

See also green paper ExTAG (Bern/Chairman) 03
General process of issuing the Decisions is there proposed for consideration by the
Group (to be approved?)

Comments: mainly editorial.

- 7.2 Discussion on document ExTAG/10/INF*** (Report by W.Dill)
Topic: Is it necessary to triplicate SMD shunt safety components
(e.g.: Z-diodes) in infallible shunt assemblies?
See also connected comments of AU ExTAG 17/INF under n°4 and of PTB in
ExTAG21/INF

Q1 if this question is brought to the maintenance team how long would
it is possible to obtain a usable result.
Chairman of T31 answers no idea but the actual need for a practical solution
is recognised.
ExTAG Chairman reminded the need is to have procedure to harmonise the
practice, not to substitute to standardisation.

TestSafe, PTB, DMT to come with a new proposal, by end of February 2002
but every one is asked to comment through e-mail.

- 7.3 Discussion related to document ExTAG/06/CD***
(Report by the Australian National Committee representative)
Attention is drawn on : Status of decision 00/21
Outcome of ExMC on the subject (Report by C.Agius).

In his capacity of ExMC secretary, C.Agius informed the group that
ExMC/81/CD now replaces ExTAG/06/C as agreed.
The received comments will be considered in ExMC through document
ExMC/97/CC.

- 7.4 Discussion on document ExTAG/11/INF***
Insulation resistance test-clause 20.4.7.6 of IEC 61241.1.1:1999 - Australian
paper n°1 (Report by D.Gray)

A criteria is missing in the standard. Therefore it is suggested to have one.

US delegation considers the proposal should be dealt by Standardization, in
principle.

Does the group agree to adopt the proposal as a decision?
Proposal is accepted by consensus.

- 7.5 Discussion on document ExTAG/12/INF***
Certification of apparatus using lamps/glass envelopes in their construction - Australian paper n°2 (Report by J.Munro)
No comments on the proposal received so far.
Case of a torch is briefly evoked.
No consensus being reach on the issue, the group agrees to forward the proposal to TC SC31G and to the maintenance team.
Action: J.Munro TestSafe
- 7.6 Discussion on document ExTAG/13/INF***
Requirement for diffusion gas sensing heads - Australian paper n°3 (Report by J.Munro)
Question of Chairman: is the code "s" usable with a marking related to the conformity to a standard?
The standards we use reflect only zone 1 and 2.
Question of the Chairman: is this proposal in the scope of ExTAG or outside?
SABS looks for harmonisation and a decision is wished for practical reason.
Suggestion: to be forwarded to TC31 to develop an annex seems not a good approach. TC 31 just disbanded a standard project

J.Munro, in view of the previous discussions, suggested guidance is still needed and could be restricted to zone 1 and 2.

Yes, but in that case is the AU proposal still necessary?

J Munro: It's to be seen more as a clarification.

On this occasion, Hungary reminded it exists three different classes of gas sensors therefore the AU paper refers only to pellistor for flammable gases because other classes do not create problem.

Various comments came from the floor.

In the end the group agreed the following:

- 1) the group agreed to put to the ExMC the question of using code "s". Action : the group agreed (W.Dill)
- 2) AU to redraft their proposal to Zone 1, mentioning breathing and draining devices based on 79-0 an 79-1.in order to ExTAG in order to come to a decision.

- 7.7 Discussion on document ExTAG/14/INF***
Testing and assessment of enclosures, for compliance with clause 16 of IEC 60079.0:1998 – Cable entries – Australian paper n°4 (Report by J.Birch)

No comments have been received so far.

If the gland is not threaded it is usually, in DMT, to certify with the envelop noted the Chairman.

SP supports the AU proposal.

KEMA suggestion: The threaded joint of an envelop should be tested with a dummy representing the worst condition.

It appears a general support of the ExTAG to this proposal which includes now the supplement suggested by KMA.

Proper wording to be supplied to the ExTAG secretary

Action Jim Munro +Bert Vries. And will be distributed as decision.

- 7.8 Discussion on documents ExTAG/15/INF***
(Report by J.Hanko, Hungarian National Committee)
Topic: presentation of information related to some basic aspects of flame transmission according to IEC 79-1.

Mr Janos Hanko makes introduction of the problem, which is fully developed in the document above referenced.

Presentation has been appreciated and considered as a good contribution to the knowledge in explosion transmission
AU / two types of issues are here raised some are related to procedural aspects and therefore could be dealt by the ExTAG. Others issues are more fundamentals and therefore are related to some extent to standardisation. recommendation of the group. This work should be disseminated largely to the scientific/engineers staff of the testing houses dealing with flameproof testing.

Aspect of safety factors affects the application of the standard.

Canada: Could the ExTAG make a recommendation to the TC31 to have a closer look. This is in line with its role as set in the IECEx 01 ITEM. 9.7

Hungary made already a proposal to TC31A that has made the suggestion which is dealt in the next item.

- 7.8 Discussion, in light of Item 7.8, on the possibility to set a joint ExTAG/IEC-SC31A Working Group concerning flame transmission testing according to IEC 79-1. Document ExTAG/16/INF***
Germany not in favour due to the traditional functioning of the standardisation.
The TC31 IEC Chairman confirms this.
Canada reminded that TC31 Chairman and secretaries of subcommittees are members ex officio of the ExTAG.

Chairman was not in favour of creating a new "group".

It is felt that it should be reported to TC31A that :
Laboratories that are able in principle able to contribute to the understanding of the Hungarian proposal and able to participate in a co-operation with the standardisation committees are listed as follow :

LCIE, UL, INERIS, DMT, PTB, BKI, SABS, SIQ.

These could participate in the clarification , on their own responsibility, provided the term of reference is clearly set.

It is observed that this problem should be handled by the Standardisation through a specific WG or through maintenance team.

The ExTAG chairman will write a letter to TC31 A including the views from the ExTAG feeling.

- 7.10 Discussion on document ExTAG/17/INF***
The Australian National Committee has noted that the understanding, interpretation or methods of reporting results on standards that are being applied in Australia do not always accord with those being used in

the ATRs received to date. Eleven (11) points are proposed for discussion– Australian paper n°5
(Report by the Australian National Committee representative)
Comments from BVS: ExTAG/18/INF*** and ExTAG/19/INF***
Comments from PTB : ExTAG/20/INF*, ExTAG/21/INF* and ExTAG/22/INF*

1) Nomenclature issue :

Decision : Agreement on the AU proposal concerning Nomenclature
Relevant part of IEC 79-0 is therefore to be read accordingly.
AU to provide the proper writing to ExTAG Secretariat.

2) Electrolyte leakage issue

No comments received to be reported
It is recognised that there may be slightly different requirements in two different parts of the relevant generating a risk of inconsistency.

It is suggested to set a small ad hoc group to come to a new proposal draft in view of coming to a decision.
The ad-hoc group is constituted of :
Test Safe, SABS, SP, SIMTARS, and DMT and is intended to propose a draft.
The ad-hoc group proposed a drafting that has been discussed.

The main out come of the discussion is that a decision was reached by consensus.

This decision is to be edited by AU and shall be passed to ExTAG sec. for distribution

3) Number of cells, which need to be short-circuited at the same time for temperature rise test.

No written comments received.
USA : not in agreement . The standard is clear : no need for the proposal.
Problem to be transfer to the maintenance team of TC31 J accompanied with the background : SIMTARS to prepare the relevant document with a copy to all members of ExTAG

4) Duplicate SMD components not be considered as infallible assemblies.
Already discussed.

5) Failure of switching mode circuit (including integrated circuits)

No written comments.
No comment from the group : EXTAG accepts this as being a decision
AU to write the decision.
Will be issued as decision and will be distributed by ExTAG secretariat.

6) Ratings of components

Chairman noted the implication of the AU proposal : no possibility of overriding the specifications of the manufacturer by additional testing made by the testing house.

Comments were received from PTB see ExTAG/21/INF
AU considers that the proposal of PTB has merit as it gives effectively more flexibility in some circumstances.

Chairman draws the attention on clause 10.8 in 79-11, which may be useful. to understand the context.
(Original intention : it was meant as an opening of the standards to new components, but could be used to guidance)
Canada expressed some concerns as laboratories are dealing with safety components.

Proposal of PTB is accepted in principle to be a decision, with some needed rewriting
Revised text to be established by :
PTB+AU+SP+CSA to write the decision which will be distributed by ExTAG secretariat.

7) Battery chargeable equipment and rating components

No comments. In the future it should mean immediate acceptance
No comment from the floor.
AU to draft it as decision and transmit it to ExTAG secretariat for distribution.

8) Spark ignition containing capacitors

No written comments received
Proposal of AU was noted and it was considered that it needs not any decision as being already covered by relevant standard 79-11 Annex 3B last paragraph.

9) Consideration of addition of voltage due to memory retention cells

No written comments received
Comments from the floor:
Nothing new :it is in the standard.
It is suggested that the AU proposal to be used as a reminder intended for the Testing houses.

AU and Canada wish to have a decision.
Accepted AU to write the decision and transmitted to ExTAG secretariat for distribution.

10) Consideration of addition of voltage and current due to electrotechnical sensing cells

See received comment from DMT ExTAG/19/INF
Rewording to be drafted by BKI/AU/DMT for a new draft proposal in view of obtaining a decision.
The members could put this document on the Website for consideration.

11) Consideration of temperature rise of diodes under fault condition

Comments received from PTB see EXTAG/22/INF

AU has sympathy for the PTB comments and suggests putting proposal modifications to TC31.

Comment from the floor :

Is it appropriate to issue a decision bearing in mind that a new EN standard is to be issued on the subject?

AU proposal is adapted to the present relevant IEC standard.

The AU proposal should be supplemented with a note to SC31G explaining that ExTAG is in favour of the draft modification proposed in Europe.

8) Contact with other International and Regional Bodies – Status review.

See ILAC issue in 9.1

9) Miscellaneous

It is proposed that ExTAG chairman Bern 03 to be reviewed as an OD by the IECEx officers.

The group agrees.

9.1) Review on how ISO 17025 is actually implemented by the ExTAG members (All members).

The ExTAG is advised that ILAC informed that this document is to be implemented by end of 2002.

AU has already some bodies under this new scope.

CSA is already under 17025.

LCIE will be in line before the end of 2002.

DMT has applied for accreditation under the 17025

It should be noted that the ExTAG group has the feeling that the requirements of several clauses of 17025 may appear to be in some occasion more adapted to metrology labs than to testing labs.

Chairman outlined that the outcome of the working group on uncertainty is therefore valuable to the ExTAG members.

9.2) Review on ILAC Issues (Report by C.Agius).

See CAB/317/INF***

Direct contact with ILAC has been made by C.Agius

In view of a future co-operation.

It is felt that as IECEx scheme is not fully operating, therefore it may be premature to invite external bodies as observer.

8 Set up of New Working group Specific to ExTAG.

No need expressed.

9 Confirmation of next meeting, year and place (to be normally aligned with ExMC meeting :

See (ExMC/93/DA***, item 19)

Proposal for shortening of the meeting is made.

It is noted that this is possible if comments are really provided before so that only decision can be taken.

Various reactions are shown.

As a consequence a 1-day and half is proposed and it was agreed to take this as a target for the next ExTAG meeting.

It is noted that if ExMC reduces its duration obviously more time could be allowed to ExTAG if the number of technical issues is increasing.

10 Close of Meeting.

* **distributed with agenda**