

Reference number of document: ISO/IEC JTC1/SC17/WG1 N **1309**

Date: 2003-11-13

Committee identification: ISO/IEC JTC1/SC17/WG1

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Title : Minutes of WG1/TF2 2003-10-06, Singapore

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Requested action : for information / perform action items

Document type: WG1 Committee Document

Document subtype: N/A

Document stage: N/A

Document language: E

WG1/TF2 MEETING MINUTES

SC17 WG1/TF2-Card Service Life

October 6, 2003

Singapore

1. Opening of the Meeting - Monday October 6, 2003

Dr. Felix Shvartsman opened the meeting at 11:00

Dr. Shvartsman explained we have two principal contributions to draft the first WD 1N1293 and 1N1270R. Much needs to be worked out between these two contributions before the first WD can be submitted to SC17. We expect the first WD will be submitted to SC17 next year.

2. Adoption of Draft Agenda

Gene M. made 1st motion. Denny W. made 2nd motion. The Agenda was accepted.

3. Introductions and Roll Call of the Experts

- | | | |
|-----|----------------------|---------------------|
| 1. | Dr. Felix Shvartsman | USA / TF2 Convenor |
| 2. | Terry Schindler | USA / TF2 Secretary |
| 3. | Manuel DELOCHE | France |
| 4. | Michel Dancygier | France |
| 5. | Dr. Martin Albrecht | Germany |
| 6. | Akira Nakazawa | Japan |
| 7. | Yoshikazo Yorimoto | Japan |
| 8. | David May | UK / WG1 Convenor |
| 9. | Steve Brunt | UK / WG1 Secretary |
| 10. | Joe Naujokas | USA |
| 11. | Denny Warwick | USA |
| 12. | Gene Meier | USA |
| 13. | Werner Koekemoer | South Africa |
| 14. | Johan Vorster | South Africa |

4. Review of all Action Items from the Past TF2 Meetings.

Action 2003-06/01: All outstanding actions relating to the Blue Wool test to be completed by next meeting. **Completed** - FOGRA produced blue wool samples and distributed the samples to the US and France. Delta E measurements have been returned to FOGRA. Summary of results report from FOGRA will be distributed for review at the March 2004 meeting.

Gene M. explained that the US-NB has not had a chance to discuss blue wool as an informative calibration test for xenon arc. US-NB expects to have a position at the next meeting.

Action 2003-06/02: Manuel D. to produce an Informative Annex for the working document based upon 1N1263. **Completed** - See 1N1281 UV light exposure vade mecum

Action 2003-06/03: Gene M. to modify and arrange for re-issue of the US contribution issued by WG1/TF2 as 1N1270. The modification will incorporate the amendments and additional material presented by GM to WG1/TF2 on 2003-06-03. Steve B. will re-issue this as 1N1270R. **Completed** - 1N1270R was distributed in July.

Action 2003-06/04: Gene M. to send ANSI/NCITS-B10.3 Presentation, and Manuel D. to send the AFNOR/DIN/ANSI Presentation to Steve B. for WG1 distribution. **Completed** - 1N1270R ANSI/NCITS-B10.3 Presentation was revised in June 2003.

Open - Manuel D. to send the AFNOR/DIN/ANSI Presentation to Steve B. for WG1 distribution.

Action 2003-06/05: Submitted Work Proposals (1N1270R and 1N1262) will be taken back to National Bodies for detailed comparative review and discussions. **All national bodies have been requested to make recommendations to the TF2 on the correct approach for continuation of this work by the next TF2 Meeting in Singapore.**

Open Issue:

David M. expects the UK to form a position about the two TF2 contributions by the next meeting.

Dr. Shvartsman asked Japan if their national body could form a position about the two WD contributions by the next meeting. Japan expects to have a position by the next meeting.

Action 2003-06/06: All experts to be prepared for more discussion about the score weight to the frequency of use relationship to card durability class at the next TF2 meeting. All experts also need to consider aspects of security (especially counterfeiting) that may be affected by the items under discussion here. **Completed.**

Action 2003-06/07: Terry S. will mail 150 of one-type Xavier University cards to be shared by Germany and France (75- each to Stephan W. and Manual D) for additional life test evaluations. **Completed** - Germany and France received the samples in August. First test results will be reviewed at the London TF2 meeting.

Action 2003-06/8: Uwe T. to re-submit the paper relevant to the survival testing of ICs. **Completed** - see 1N1204 UT 020604 durability testing

5. Group Discussion of Two Existing Draft Proposals.

Gene M. reviewed the US position. Gene pointed out that the US is open to all new test methods.

Manuel D. expressed that the cards must meet ISO 7810 before the first aging cycle. This explains the French comment for scope distributed in 1N1290.

Scope re- wording:

- OK for sentence modification
- Second paragraph: it explains that no additional test will be performed on card applications already covered by ISO 7810 (basically the applications falling into the first cell of the durability table "0 cycle / 1000 bandings"
- Position of this paragraph (foreword or elsewhere) still open; to be discussed.

The second France comment references an Editor's rule that only existing ISO documents may be listed as normative reference.

Normative reference:

- ANSI INCITS 322 standard has no equivalent at an international level so can't be included in references. But it will be mentioned in bibliography.
- Gene M. explained that US-NB thinks the exposure to fuel B is not realistic in real use.
- Dr. Albrecht explained that the combination of fuel B and UV light has effect on cards and has been accepted as aggressive chemistry. The end result from aging cycles with fuel B is better than not using fuel B.
- Gene M. thinks the US would feel less reluctance to using a chemical that is more commonly exposed to cards in real use.

Softener storage:

- Gene M. pointed out that liquid DOP is preferred over plasticized vinyl. The US is mostly concerned about the variability of vinyl sheets.
- Germany and France have a common concern that liquid DOP is a suspected carcinogen and special practices and equipment are needed for handling of liquid DOP.
- Dr. Albrecht will distribute a document that explains the use of vinyl DOP in aging of cards.

Blue wool strips:

- The US-NB is in favor of developing a control card over using blue wool. The US doesn't object to keeping blue wool as an informative method for checking equipment calibration.
- Manuel D. explained that blue wool method from the textile industry was chosen because it met two objectives low cost and simplicity.
- Dr. Albrecht explained that the idea of creating a plastic card reference was passed over because the development is very expensive.
- Terry S. recalled that magnetic stripe card references had development price tags of about \$30K US dollars.

UV light source:

- The US-NB questioned how the range 300nm to 800nm is derived.
- Manuel D. explained that PVC for instance is most sensitive to 340nm band. The wide band covers a range a sensitive bands for all card materials.

Temperature cycling:

- The US is concerned that the cost of environmental test chambers with fast reaction programmable controls is very expensive and may be out of reach for small test labs.
- Manuel D. explained that thermal shock is needed for complex card constructions built in layers of dissimilar materials. Contactless cards are a prime example of complex layers of dissimilar materials.
- Dr. Shvartsman commented that we must be careful not to produce a document that is not economically feasible for the industry. Some members of the US-NB think a thermal chamber that reacts to the shown cycle would be very costly.
- Terry S. asked for discussion about moving the cards from a hot chamber to a cold chamber for thermal shock. This would resolve the idea of using expensive fast reaction chambers.
- Gene M. explained the US is concerned about testing which relies on long test sequences. We estimate each Sequence takes 8 days and a 3-Sequences test would take 24 days. This will be very expensive. Furthermore the error adds up with the addition of every test in the sequence, which would results in large variation in final results.

- Joe N. said the US expressed concern that none of the cards testing by Germany and France were reported to crack and the cards returned for examination appeared to have excessive wear to the outer layer.
- Dr. Albrecht explained that several cards did crack after bending stress when exposed to more UV light. It was believed that the chamber was out of calibration and exposed the cards to more UV light.
- David M. pointed out that he hoped to gain the approval from SC17 this week to approve a WD for card durability. He feels we are so far apart in the two approaches under discussion.
- Gene M. pointed out that the US is totally open to all test methods. The differences that need compromise occur at the front end and the back end of the two approaches. Somehow we need to come together by compromise.

AFNOR comments 1N1292:

- Manuel D. reviewed 1N1292. Global Two- Dimensional approach.
BUT HOW TO DETERMINE A DEFINED APPLICATION LOCATION IN THE 2D COORDINATE SYSTEM?
- Denny W. asked if usage and age are two independent measurements.
- Manuel explained that usage and age are measured independently however they are linked by a Two-Dimensional grading tool. Manuel continued to review the logical choices made to calculate the Two-Dimension card grade.
- Denny W. pointed out that the Two-Dimensional tests does not actually assign numeric grade. The test result could give a pass result on a card construction that comes very close to failure.
- Complexity of the bending test was discussed. One thousand bends means 250 long frontward, 250 long backwards, 250 short frontward and 250 short backward.
- Dr. Albrecht suggested we try to simplify the test by performing only torsion test. Only one test setup will replace 4 setups.
- Germany proposes a round robin test between France, Germany, USA, and possibly Japan.
- Dr. Shvartsman suggested the test be setup by email after this meeting. The start date will be dependent on a US company to buy equipment and test soil for the soil test. Also a donation of cards for the round robin test is needed.
- Terry S. suggested the cards for the first round robin should be typical construction that everyone is familiar with.
- Manuel D. proposed providing PVC cards with non-functional chip and functional magnetic stripe.
- Manuel D. committed to producing one set of test cards all from the same batch.
- Gene M. will check with DataCard for approval to purchase soil test equipment.

France will take two sets of test cards

Germany will take two sets of test cards

USA will take one set of test cards

Japan will take one set of test cards.

6. Discussion of New Work Proposal Submission.

Japan will submit acceptance of the New Work Proposal by November 15th.

The USA will submit acceptance by February 15th.

The UK will submit acceptance by November 15th.

Dr. Albrecht will send an edited version of 1N1292 to Steve Before submission as WD to SC17.

7. Other Business.

There were no other business discussions.

8. Action Items List.

Action 2003-10/01: Dr. Albrecht will distribute a standard document that explains the use of plasticized vinyl.

Action 2003-10/02: Manuel D. committed to producing one set of test cards PVC with non-functional chip and functional magnetic stripe D2T2 / mass transfer personalization and clear topcoat all from the same batch.

Action 2003-10/03: Gene M. will discuss with members of B10.3 for commitment to purchase soil test equipment by the end of October.

Action 2003-10/04: Japan national body will confirm participation in the round robin testing and state the number of participating organizations by the end of October.

France will take two sets of test cards.

Germany will take two sets of test cards

US will take one set of test cards

Japan will take one set of test cards.

Action 2003-10/05: Steve B. will circulate the updated 1N1102 by October 15 to the members of WG1 who will return comments from their national bodies before February 15th.

Action 2003-10/06: Steve B. will circulate ISO 105B02 again.

9. Next Meetings.

March 2004 - London, UK

June 2004 - Okinawa, Japan

October 2004 - City/TBD, Australia

ADJOURNMENT: TF2 Meeting was adjourned on October 6, 2003, at 5:30PM.