

DRAFT REPORT

OF THE TWENTYNINTH MEETING OF

**ISO/TC 108/SC 3 "Mechanical vibration and shock – Use and calibration of
vibration and shock measuring instruments"**

held on 2008-11-03 (p.m.) and 2008-11-07 (a.m.)

in St. Louis, USA

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LIST OF DELEGATES

to the 29th plenary meeting of

**ISO/TC 108/SC 3 "Mechanical vibration and shock – Use and calibration of
vibration and shock measuring instruments"**

held on 2008-11-03 (p.m.) and 2008-11-07 (a.m.) in St. Louis, USA

Chairman: Mr Torben Licht, Denmark

Secretary: Mr Leif Nielsen, Denmark

P-members:

France Mr Pierre Diakonoff Head of delegation

Germany Mr Hans-J. von Martens Head of delegation
Mr Thomas Bruns
Mr Thomas Damker
Mr Thomas Petzche

Japan Mr Takashi Usuda Head of delegation

South Africa Mr Ian Veldman Head of delegation

United Kingdom Mr Michael Gross Head of delegation

USA Mr David J. Evans Head of delegation
Mr Bruce Douglas
Mr Ali Herfat
Mr Macimissa Mezache

O-members:

Sweden Mr Alf Olsson Head of delegation

TC 108 Chairman: Mr Bruce Douglas, USA

TC 108 Secretariat: Ms Susan Blaeser, USA

TC 108/SC 2 Chairman: Mr Alf Olsson, Sweden

TC 108/SC 2 Secretariat: Mr Dieter Hansen, Germany

OIML: Mr Hans-J. von Martens, Germany

ADOPTED AGENDA

for the 29th plenary meeting of

**ISO/TC 108/SC 3 "Mechanical vibration and shock – Use and calibration of
vibration and shock measuring instruments"**

held on 2008-11-03 (p.m.) and 2008-11-07 (a.m.) in St. Louis, USA

1. Opening of the meeting (14 h 00)
2. Roll call of delegates
Doc. 108/3 N 471
3. Adoption of the agenda
Doc. 108/3 N 463, N 472
4. Appointment of the drafting committee
5. Report of the Secretariat
Doc. 108/3 N 468
6. Presentation of proposals for future work
7. Reports from working groups
Doc. 108/3 N 469
 - 7.1 WG 6 – Calibration of vibration and shock transducers
 - 7.2 WG 10 – Vibration condition monitoring transducers and instrumentation
8. Consideration of documents
 - 8.1 ISO/DIS 16063-31 "Methods for the calibration of vibration and shock transducers – Part 31: Testing of transverse vibration sensitivity" (Revision of ISO 5347-11:1993)
DIS 16063-31:2008, doc. 108/3 N 464
 - 8.2 ISO/CD 16063-41 "Methods for the calibration of vibration and shock transducers – Part 41: Calibration of laser vibrometers"
Doc. 108/3 N 453, N 462
9. Discussion of standards up for review in 2008
 - 9.1 ISO 8041:2005 "Human response to vibration – Measuring instrumentation"
Doc. 108/3 N 466
 - 9.2 ISO 16063-22:2005 "Methods for the calibration of vibration and shock transducers – Part 22: Shock calibration by comparison to a reference transducer"
Doc. 108/3 N 467
 - 9.3 ISO 16063-21:2003 "Methods for the calibration of vibration and shock transducers – Part 21: Vibration calibration by comparison to a reference transducer"
Doc. 108/3 N 465

10. Status on IEC/FDIS 60747-14-4 "Discrete semiconductor devices – Part 14-4: Semiconductor accelerometers" from IEC/SC 77E
11. Presentation from the CCAUV meeting, October 2008
Doc. 108/3 N 470
12. Disbanding of working groups
13. Decision on proposals for future work
(see item 6)
14. Work items on which no progress is being made – Status and action to be taken
15. Review of preliminary work items
16. Requirements concerning a subsequent meeting
17. Any other business
18. Approval of resolutions
19. Closing of the meeting

DRAFT REPORT

of the 29th plenary meeting of

ISO/TC 108/SC 3 "Mechanical vibration and shock – Use and calibration of vibration and shock measuring instruments"

held on 2008-11-03 (p.m.) and 2008-11-07 (a.m.) in St. Louis, USA

1 Opening of the meeting

The meeting was opened by the Emerson Senior Vice President and Chief Technology Officer, Mr Ledford.

The chairman, Mr Licht, welcomed the delegates to the meeting and thanked Emerson for the invitation to meet in St. Louis.

The first session took place on 2008-11-03 starting at 14 h 00, and the second session took place on 2008-11-07 starting at 10 h 00.

2 Roll call of delegates

A list of delegates announced to the secretariat before the meeting was given in doc. 108/3 N 472. The final list of delegates is included in this report.

3 Adoption of the agenda

The notice of meeting and first draft agenda, doc. 108/3 N 463, had been circulated on 2007-01-29. A revised draft agenda, doc. 108/3 N 471, had been circulated 2008-10-21.

In relation to the first draft agenda, the following changes had been made:

- Removal of item 9.2, Review of ISO 16062-21:2003 "Vibration calibration by comparison to a reference transducer"
- Addition of a new item 10, Status on IEC/FDIS 60747-14-4 "Discrete semiconductor devices – Part 14-4: Semiconductor accelerometers" from IEC/SC 77E"
- Addition of a new item 11, Presentation from the CCAUV meeting, October 2008, by Mr von Martens, doc. 108/3 N 470
- Addition of document numbers

After the circulation of the revised draft agenda, the secretariat had, however, been advised about a number of late comments on the ISO 16063-21 review. This item had, therefore, to be re-introduced in the agenda as item 9.3.

The revised draft agenda with the addition of item 9.3 was adopted. The adopted agenda is included in this report.

4 Appointment of the drafting committee

Mr Gross, UK, was appointed member of the drafting committee to assist the secretariat with the preparation of the draft resolutions.

5 Report of the secretariat

The secretariat presented its report given in doc. 108/3 N 468.

The chairman's term of office would expire by the of 2008. The secretariat informed that Mr Licht had accepted the nomination by the TC 108/SC 3 secretariat for another 3 year term.

Concerning the constitution and organization of TC 108/SC 3, Sweden had become O-member since the last meeting.

The status of work items was only briefly reviewed since most of the items were to be dealt with during the meeting.

It was noted that a corrigendum to ISO 8041 had been published.

The secretariat referred to a number of administrative issues, which had been presented at the opening TC 108 plenary meeting.

The report of the secretariat was approved.

6 Presentation of proposals for future work

The chairman informed that no written new proposals for future work had been received for this meeting.

The chairman reminded, however, of the potential French proposal concerning calibration of velocity pick-ups. The French delegation informed that they were trying to establish a more active participation in TC 108 but at the moment there was no further background for pursuing this item.

7 Reports from working groups

The list of members registered by the secretariat was given in doc. 108/3 N 469. Formally, all changes have to be introduced by the member bodies through the Global Directory, however, as long as this is not being consistently used by all member bodies, the TC 108/SC 3 secretariat had required that appointments and changes of members to working groups also be submitted by e-mail to the secretariat.

Further, the secretariat was grateful to receive direct information at the meeting and offered to assist in getting changes formally registered, if necessary.

Full titles of work items in the following can be found in the secretariat's report, doc. 108/3 N 468.

7.1 WG 6 – Calibration of vibration and shock transducers

WG 6 met in St. Louis. The report of the WG 6 meeting, given in Annex A, was recognized.

In addition to the decisions taken under 8.1, 8.2, 9.2, 9.3 and item 10 of the TC 108/SC 3 agenda concerning DIS 16063-31, CD 16063-41, review of ISO 16063-22, review of ISO 16063-21 and the IEC/SC 47 document, the specific items below relating to WG 6 required formal decisions by TC 108/SC 3:

7.1.1 PWI 16063-42 "Methods for the calibration of vibration and shock transducers – Part 42: Calibration of seismometers"

Annex A, item 8 refers. It was decided to leave PWI 16063-42 at the preliminary stage and to request the potential project leader, Mr Otake, Japan, to prepare a third preliminary working draft for discussion at the next WG 6 meeting. Further, he was asked to provide some material about seismometers for the information of the WG 6 members, who turned out not to be familiar with this type of transducer. Resolution 3 was taken.

Action: Mr Otake

7.1.2 PWI 16063-32 "Methods for the calibration of vibration and shock transducers – Part 32: Resonance testing – Testing the frequency and the phase response of accelerometer by means of its excitation" (Revision of ISO 5347-14:1993)

Annex A, item 9 refers. The potential project leader, Mr Smirnov, Russian Federation, had unfortunately been obliged to send an apology to this meeting. Action could, therefore, not be taken on this item, and it was decided to leave PWI 16063-32 at the preliminary stage with the decision from the last meeting to request Mr Smirnov to prepare a third preliminary working draft with an extended scope for a combined revision of ISO 5347-14:1993 and ISO 5347-22:1997 for discussion at the next WG 6 meeting. Resolution 4 was taken.

Action: Mr Smirnov

7.1.3 PWI 16063-23 "Methods for the calibration of vibration and shock transducers – Part 23: Angular vibration calibration by comparison to reference transducers"

Annex A, item 10 refers. In the continued absence of anyone able or willing to take the leadership, it was decided to leave PWI 16063-23 at the preliminary stage without allocation of a potential project leader and any discussion of the item at this meeting. Resolution 5 was taken.

Action: Secretariat

7.1.4 PWI 11362 "Parameter identification of accelerometers by primary methods"

Annex A, item 11 refers. It was decided to focus the document on primary calibration and to ask the potential project leader, Mr Bruns, Germany, to prepare a revised preliminary working draft for discussion and possible activation at the next meeting. Resolution 6 was taken.

Action: Mr Bruns

7.1.5 PWI 21691 "Dynamic force transducer calibrations"

Annex A, item 12 refers. WG 6 recommended that the method had to be further validated by the potential project leader, Mr Bruns, Germany, before progressing into a working draft. It was, therefore, decided to leave PWI 21691 at the preliminary stage. Resolution 7 was taken.

Action: Mr Bruns

7.2 WG 10 – Vibration condition monitoring transducers and instrumentation

WG 10 met in St. Louis. The report of the WG 10 meeting, given in doc. 108/3 N 473, which was distributed at the meeting, and is also reproduced as Annex B, was recognized.

Due to a large work load and in the lack of contributions by members of the working group as promised at the last meeting, the convenor, Mr Hackstein, Germany, had informed the secretariat that he had to resign as convenor and project leader. In his absence, the chairman of TC 108/SC 3, Mr Licht, had undertaken to conduct the WG 10 meeting in St. Louis and to substitute as convenor.

As result of the meeting it had been recognised that there is, at the moment, simply not sufficient resources to proceed with the ambitious project originally foreseen as work item 13377. It had, therefore, been decided to recommend to TC 108/SC 3 that the work be restricted to a pure revision of ISO 2954:1975 to constitute the instrumentation basis for the ISO 10816 and ISO 13377 series of documents on evaluation and condition monitoring of machine vibration from TC 108/SC 2/WG 1.

The work should, therefore, also be conducted under the work item number 2954, and Mr Licht had undertaken to prepare a first working draft to be circulated to WG 10 before the end of January 2009.

The German delegation stated that in their opinion, ISO 2954:1975 is so outdated that, basically, it should not even be revised but rather be withdrawn. However, since work on a revision had already been started the way of proceeding suggested by WG 10 was probably the best compromise.

Resolution 11 was, therefore, taken.

Action: Mr Licht

SECRETARIAT NOTE: At the subsequent TC 108 meeting the chairman of TC 108/SC 2, Mr Olsson, Sweden, urged WG 10 to get an official CD circulated before the next TC 108/SC 2 meeting in March 2009, if possible.

8 Consideration of documents

8.1 ISO/CD 16063-31 "Methods for the calibration of vibration and transducers – Part 31: Testing of transverse vibration sensitivity (Revision of ISO 5347-11:1993)"

DIS 16063-31 had been circulated for voting by 2008-12-02. As appeared from the voting result given in doc. 108/3 N 464, the DIS had been approved with a 100% support.

Somewhat unexpectedly, however, a number of comments had been submitted. These had been dealt with at the WG 6 meeting in St. Louis, and a revised text had been prepared and was distributed as doc. 108/3 N 474. This was immediately supported, and the chairman concluded that doc. 108/3 N 474 (with correction of DIS to FDIS layout on the front page) should be circulated as an FDIS. Resolution 1 was taken.

Action: Secretariat

8.2 ISO/CD 16063-41 "Methods for the calibration of vibration and transducers – Part 41: Calibration of laser vibrometers"

A second CD 16063-41, doc. 108/3 N 453, had been circulated for voting by 2008-01-31. As appeared from the voting result given in doc. 108/3 N 462, the CD had been approved with a large number of comments, which had been dealt with at the WG 6 meeting in St. Louis. As result, a revised text had been prepared and was distributed as doc. 108/3 N 475. This was immediately supported, and the chairman concluded that doc. 108/3 N 475 should be circulated as a DIS. Resolution 2 was taken.

Action: Secretariat

9 Discussion of standards up for review in 2008

9.1 ISO 8041:2005 "Human response to vibration – Measuring instrumentation"

The result of the review enquiry given in doc. 108/3 N 466 showed a great majority support for confirmation. The German member body had, however, called for revision and had submitted a number of suggestions for corrections and improvements. ISO 8041 had been prepared by the former JWG 1 together with CEN/TC 231. JWG 1 had, however, been disbanded at the publication of the standard, and none of the members of the former working group were present at the meeting in St. Louis.

Prior to the meeting the secretariat had consulted the former project leader and convenor, Mr Pitts, UK, who acknowledged the comments but recommended that more experience with the standard should be gained and compiled for consideration e.g. at the next regular review.

An ad-hoc meeting to review the German comments was held during the meetings in St. Louis, and as a result it was agreed that the German delegation would prepare a specific draft for a technical corrigendum to be submitted to the TC 108/SC 3 secretariat. Resolution 12 was taken.

Action: German delegation

9.2 ISO 16063-22:2005 "Methods for the calibration of vibration and shock transducers – Part 22: Shock calibration by comparison to a reference transducer"

The result of the review enquiry given in doc. 108/3 N 467 showed 100% confirmation with one comment from USA. At the meeting the US delegation, however, withdrew their comment. It was, therefore, decided to confirm ISO 16063-22. Resolution 9 was taken.

Action: Secretariat

9.3 ISO 16063-21:2003 "Methods for the calibration of vibration and shock transducers – Part 21: Vibration calibration by comparison to a reference transducer"

The result of the review enquiry given in doc. 108/3 N 465 showed 100% confirmation with no comments. Therefore, in preparing the revised draft agenda, the secretariat had removed it from the agenda. However, just before the meetings the German member of WG 6 had detected a number of corrections, which were considered at the WG 6 meeting in St. Louis, Annex A, item 13 refers.

The item had, therefore, been reintroduced on the agenda, and as result of the discussion in WG 6, a proposal for a corrigendum had been prepared, which was distributed at the meeting as doc. 108/3 N 476.

The chairman concluded that doc. 108/3 N 476 with a minor correction made at the meeting was approved for publication as a technical corrigendum. Resolution 8 was taken.

Action: Secretariat

10 Status on IEC/FDIS 60747-14-4 "Discrete semiconductor devices – Part 14-4: Semiconductor accelerometers" from IEC/SC 77E

The result of the present status and the discussions between the IEC/SMB and the ISO/TMB was briefly given in the secretariat's report, doc. 108/3 N 468, action on resolution 9 from the last meeting.

It was regretted that the official representative of the IEC committee had cancelled his participation at this meeting as originally foreseen. The item had, however, been intensively discussed in the WG 6 meeting, Annex A, item 14 refers, and the convenor of WG 6, Mr Douglas, USA, expressed particular thanks to the Japanese member, Mr Usuda, for his assistance in conveying information to and from the Japanese committee behind the IEC draft without being a formal representative.

As result of a lengthy discussion in WG 6, it was decided to recommend that basically, the first part of the IEC document be permitted to be circulated for FDIS voting as suggested by the IEC/SMB. However, obviously the document would have to edited to reflect the splitting up in two parts, and TC 108/SC 3 requested that Messrs Licht and Evans, who were appointed as points of contact, be allowed to review the draft prior to the processing by the IEC Central Office.

Any further calibration methods not covered by the ISO 5347- and ISO 16063-series particular to semiconductor accelerometers, which might be deemed necessary, should be developed in cooperation between TC 108/SC 3 and IEC/SC 47E. Resolution 10 was taken.

SECRETARIAT NOTE: This resolution was subsequently adopted also by TC 108, and the chairman of TC 108, Mr Douglas, USA, would bring this response to the attention of the ISO/TMB.

Action: TC 108 chairman

11 Presentation from the CCAUV meeting, October 2008

The report given in doc. 108/3 N 470 was presented and reviewed in detail by the representative of TC 108/SC 3 to CCAUV, Mr von Martens, Germany.

12 Disbanding of working groups

No working groups were disbanded.

13 Decision on proposals for future work

No proposals had been put forward.

14 Work items on which no progress is being made – Status and action to be taken

The secretariat had received warning notes from the ISO/CS concerning DIS 16063-31 and CD 16063-41. However, with the progress and decisions at this meeting on these documents to proceed to the next stages, the warnings were overcome.

15 Review of preliminary work items

All preliminary work items had been dealt with during the review of the working groups.

16 Requirements concerning a subsequent meeting

To be held in conjunction with the next meetings of TC 108.

Preliminary plans were mentioned to organize a future meeting of TC 108 and all of its subcommittees in Paris. If this was to be in 18 months, this would fit within the normal meeting schedule of TC 108/SC 3.

However, if such a full meeting could not be organized until in 2 years, it would probably be necessary to try to organize a TC 108/SC 3 – or at least working group meetings – in between in order to ensure progress, and the IMECO meeting in September 2009 in Lisbon, where a number of the experts participating in TC 108/SC 3 would be present anyway, might be an opportunity.

17 Any other business

Nothing.

18 Approval of resolutions

The draft resolutions, doc. 108/3 N 477, were distributed and approved with some minor corrections. The adopted resolutions, given in doc. 108/3 N 478, are included in this report.

19 Closing of the meeting

The chairman expressed his thanks to the convenors and delegates for their efficient work and cooperation.

Special thanks were extended to Emerson for having provided such good meeting facilities and for having sponsored the social event.

Finally, the chairman expressed his thanks to the secretariat for their preparation of the meetings and to the delegates for their cooperation.

The meeting was closed at 11 h 30 on 2008-11-07.

5 Status of documents

The status of the documents under development in WG 6 would appear under their respective items in the following.

6 Consideration of the voting result on 16063-31 "Methods for the calibration of vibration and shock transducers – Part 31: Testing of transverse vibration sensitivity" and preparation of a revised text

DIS 16063-31 had been circulated for voting in the period 2007-05-02/2007-10-02 with the result as given in doc. 108/3 N 464. It was noted that unexpectedly, a number of comments, notably from China and USA, had been submitted.

The comments were mostly editorial and contained suggestions for improvement of wordings to become more clearly understandable. With the assistance of the secretariat the convenor, Mr von Martens, had prepared a draft for actions on the comment, doc. WG 6 N 174, as well as a draft for a revised text, doc. WG 6 N 173, which had been circulated prior to the meeting. These documents were reviewed in detail at the meeting, and a final text was established. As a result, WG 6 agreed on the following

DECISION: It was recommended to TC 108/SC 3 that the revised text prepared at the meeting be approved for FDIS circulation.

Action: Secretariat

SECRETARIAT'S NOTE: The revised text was established after the meeting as doc. 108/3 N 474 and subsequently adopted by TC 108/SC 3 for FDIS circulation, resolution 1 of doc. 108/3 N 478 refers.

7 Consideration of the voting result on second CD 16063-41 "Methods for the calibration of vibration and shock transducers – Part 41: Calibration of laser vibrometers", and preparation of the DIS layout

The second CD 16063-41, doc. 108/3 N 453, had been circulated to TC 108/SC 3 for voting in the period 2007-10-31/2008-01-31. As could be seen from the voting result given in doc. 108/3 N 462, the document was basically approved for DIS circulation but there were a number of comments.

In preparation for the meeting the project leader, Mr von Martens, had prepared a number of supporting documents as listed on the agenda. Notably some of the comments from China were due to misunderstandings or were incorrect. The project leader had, therefore – subsequent to the first set of documents with proposed actions – prepared an additional response to the Chinese comments given in doc. WG 6 N 169 as well as an updated version of the DIS layout given in doc. WG 6 N 171.

These documents were reviewed in detail, and as a result, WG 6 agreed on the following

DECISION: It was recommended to TC 108/SC 3 that the revised text prepared at the meeting be approved for DIS circulation.

Action: Secretariat

SECRETARIAT'S NOTE: The revised text was established after the meeting as doc. 108/3 N 475 and subsequently adopted by TC 108/SC 3 for DIS circulation, resolution 2 of doc. 108/3 N 478 refers.

8 Consideration of PWI 16063-42 "Methods for the calibration of vibration and shock transducers – Part 42: Calibration of seismometers with high accuracy using acceleration of gravity"

As decided at the last meeting, the potential project leader, Mr Otake, had prepared a revised document, doc. WG 6 N 167, which had been circulated prior to the meeting. A careful review of the document and discussion notably of the scope revealed that many WG 6 members are not familiar with this type of equipment and were, therefore, at present not able to constructively contribute to the processing of the document to the active stage.

The question was also brought forward whether this was not actually a revision of ISO 5347-5, but according to results of specific discussions of this question in the Japanese committee this was not the case. In conclusion, WG 6 agreed on the following

DECISION: The project leader was asked to prepare a revised draft for consideration at the next meeting. At the same time he was asked to provide whatever kind of information he was able to – publications, references, links to appropriate websites – which can explain the members how this type of transducer is functioning, and which may be included in a Bibliography to support readers of the future standard in their understanding.

Action: Mr Otake

9 Note of PWI 16063-32 "Methods for the calibration of vibration and shock transducers – Part 32: Resonance testing – Testing the frequency and the phase response of accelerometer by means of its excitation" (Revision of ISO 5347-14:1993)

In the absence of the potential project leader, Mr Smirnov, who had been able to attend this meeting, and in the absence of any new draft from him, WG 6 quickly agreed on the following

DECISION: The item should stay at the preliminary stage and was postponed until the next meeting.

Action: Mr Smirnov

10 Consideration of PWI 16063-23 "Methods for the calibration of vibration and shock transducers – Part 23: Angular vibration calibration by comparison to reference transducers"

This was still considered an important work item. However, in the lack of anyone willing or having resources to take the project leadership, WG 6 quickly agreed on the following

DECISION: The item should stay at the preliminary stage without allocation of a project leader.

Action: Secretariat

11 Consideration of PWI 11362 "Parameter identification of accelerometers by primary methods"

The potential project leader, Mr Bruns, presented doc. WG 6 N 160, which had been circulated well in advance of the meeting. It was recognized that the method could well be applied to both primary and secondary calibration. It was decided, however, that as a first step, a standard aiming at primary calibration should be prepared, foreseeing a possible subsequent part on secondary calibration at a later time. WG 6 agreed on the following

DECISION: The item should stay at the preliminary stage until the next meeting. The potential project leader would prepare a revised WD for discussion and possible activation at the next meeting.

Action: Mr Bruns

12 Consideration of PWI 21691 "Dynamic force transducer calibrations"

The potential project leader, Mr Bruns, had recognized that there had not been resources to progress on this work item since the last meeting and he wanted some more validation before proceeding with it as an official item. WG 6, therefore, agreed on the following

DECISION: The item should stay at the preliminary stage awaiting further development.

Action: Mr Bruns

13 Consideration of the review result of ISO 16063-21:2003 "Methods for the calibration of vibration and shock transducers – Part 21: Shock calibration by comparison to a reference transducer"

After the termination of the first regular 5-year review, which had given rise to 100% support for confirmation and no comments, the German member of WG 6 had detected a number of misprints and errors as given in doc. WG 6 N 172. The document had, therefore, been reintroduced on the agenda for the TC 108/SC 3 meeting. Doc. WG 6 N 172 was reviewed, and WG 6 agreed on the following

DECISION: It was recommended to TC 108/SC 3 that the corrections be published as a corrigendum to ISO 16063-21:2005.

SECRETARIAT'S NOTE: A draft corrigendum was prepared after the meeting as doc. 108/3 N 476 and subsequently approved by TC 108/SC 3 with a minor correction (given in doc. 108/3 N 476corr) for publication as a corrigendum, resolution 3 of doc. 108/3 N 478 refers.

14 Discussion of processing of IEC/FDIS 60747-14-4 "Discrete semiconductor devices – Part 14-4: Semiconductor accelerometers" from IEC/SC 47E

The convenor briefly reminded of the history, which had led to a TC 108/SC 3 resolution from the last meeting. Since then he had reported to the ISO/TMB and also met with Japanese experts. As explained in the TC 108/SC 3 secretariat's report, doc. SC 3 N 468 under the item "actions on resolutions from the last meeting", resolution 9, the IEC/SMB had suggested to the ISO/TMB that the document should be split into two parts of which the first should be released for FDIS voting and the second part, containing specific description of a number of calibration methods, should be further developed in a joint working group between IEC/SC 47E and TC 108/SC 3 to be set up.

It was the intention that a representative of IEC/SC 47E should have participated in the meetings in St. Louis, and the ISO/TMB was awaiting the result of this consultation, but unfortunately, he had cancelled his participation. The convenor expressed the hope that the Japanese member of WG 6, though not an official representative of IEC/SC 47E, could help to find a compromise solution. He had participated in discussions in Japan and conveyed a number of questions concerning the authority of TC 108/SC 3, which were discussed, and replies were given, which he would refer back to the Japanese committee.

Further, as result of a long discussion, a resolution was drafted, basically stating the acceptance to let the first part of the IEC document proceed for FDIS voting as suggested by the IEC SMB. However, obviously the document would first have to be edited to reflect the splitting up into two parts and to reference the TC 108/SC 3 calibration standards series instead of annexes D-H, and TC 108/SC 3 requested that Messrs Licht and Evans, who were appointed as points of contact, be allowed to review the edited text prior to the FDIS processing by the IEC Central Office. Any further calibration methods deemed necessary particularly to semiconductor accelerometer calibration should be developed in cooperation between TC 108/SC 3 and IEC/SC 47E. Agreement was thus reached on the following

DECISION: It was recommended that the draft resolution prepared be adopted by TC 108/SC 3 as response to the request from the ISO/TMB.

SECRETARIAT NOTE: The resolution was subsequently adopted by TC 108/SC 3, resolution 10 of doc. 108/3 N 478 refers.

15 Presentation from the last CCAUV meeting, October 2008

Presentation made at the TC 108/SC 3 meeting, see item 11 of the main report.

16 Any other business

Nothing.

17 Next meeting

To be held in connection with the next meeting of TC 108/SC 3. Final decision was deferred to the subsequent TC 108/SC 3 plenary meeting.

18 Closing of the meeting

The meeting was closed at 15 h 15 on 2008-11-06.

A N N E X B

DRAFT MINUTES

from the meeting of ISO/TC 108/SC 3/WG 10 "Vibration condition monitoring transducers and instrumentation"

2008-11-04 (p.m.) in St. Louis, USA

1 Opening of the meeting

The meeting was opened by the chairman of TC 108/SC 3, Torben Licht, who regretted that the convenor of WG 10, Holger Hackstein due to a large work load had been obliged to resign as convenor of WG 10 and project leader for WI 13377/ISO 2954:1975 revision. In the absence of any other WG 10 member present being willing to take over the leadership, the TC 108/SC 3 chairman had undertaken to conduct the WG 10 meeting in St. Louis.

2 Attendance

Substitute convenor and ISO/TC 108/SC 3 chairman

Mr T Licht, Denmark

Members

Mr T Usuda, Japan

Observers

Mr H-J von Martens, Germany

Mr M Gross, UK

ISO/TC 108/SC 3 Secretariat

Mr L Nielsen, Denmark

Mr A Smirnov had submitted an apology for absence at this meeting.

SECRETARIAT'S NOTE: Correction to the list of members given in doc. 108/3 N 469: Messrs Evans and Douglas, USA, are not members of WG 10.

3 Approval of the draft agenda, doc. WG 10 N 29

The draft agenda was approved.

4 Note of the minutes from the last meeting, doc. WG 10 N 27

The minutes were noted.

5 Discussion of WI 13377 "Transducers and instrumentation for vibration condition monitoring of machines (including revision of 2954 "Mechanical vibration in rotating machinery – Requirements for instruments for measuring vibration severity")

As clearly recorded in the minutes from the last meeting, doc. WG 10 N 29, a detailed action plan had been established requiring the preparation of clauses of the draft by a number of members of the working group.

However, with the exception of Mr Groß, DIN, none of the contributions had been prepared. The convenor had recognized that he would not have the resources to do all of the work himself. He had, therefore, decided that if the members appointed by the member bodies, which in the formal approval of the work item had indicated that they would participate actively did not do so in practice he would have to resign as convenor and project leader.

After a long discussion it had to be recognized that there are at present simply insufficient resources available to fulfil the original plan for the work to develop a document, which includes both instrumentation requirements and guidelines for monitoring. On the other hand, TC 108/SC 3 had received – and approved – a very specific request from TC 108/SC 2 to revise ISO 2954, which is technically completely outdated but for which it was recognized that there is still a need. It was further noted that the ISO/CS would delete the work item if no progress was made before June 2009.

It was decided that the only possible way to proceed if the work should not be totally given up would be to restrict the already ongoing work to a pure revision of ISO 2954, and it was realised that, actually, the German comments contained as Annex B in the result of the voting on the original work item proposal, doc. 108/3 N 449, constituted a very specific basis for preparing a draft.

Conclusion

The chairman of TC 108/SC 3, Mr Licht, undertook to act as substitute convenor in order to be able to maintain WG 10 and to prepare before 2009-01-31 a first working draft for a revision of ISO 2954 based on the above decision to be circulated to the members of WG 10 for comments. If progress was proven according to this action plan the secretariat would arrange that steps would be taken to ensure that the work item was not automatically deleted by the ISO/CS.

Action: Mr Licht, WG 10 members

Even though the existing ISO 2954 is outdated, a possible decision to ask for withdrawal of the standard was postponed until the next meeting.

7 Any other business

None.

8 Next meeting

Depending on progress. Likely to be in connection with the next meeting of TC 108/SC 3.

9 Closing of the meeting

The meeting was closed at 16 h 00.

RESOLUTIONS ADOPTED

at the 29th plenary meeting of

**ISO/TC 108/SC 3 "Mechanical vibration and shock – Use and calibration of
vibration and shock measuring instruments"**

held on 2008-11-03 (p.m.) and 2008-11-07 (a.m.) in St. Louis, USA

Resolution 1 – DIS 16063-31

ISO/TC 108/SC 3 approves doc. 108/3 N 474, draft layout for FDIS 16063-31 "Methods for the calibration of vibration and shock transducers – Part 31: Testing of transverse vibration sensitivity (Revision of ISO 5347-11:1993)" and requests the secretariat to send it to the ISO/CS for circulation as a Final Draft International Standard.

Resolution 2 – CD 16063-41

ISO/TC 108/SC 3 approves doc. 108/3 N 475, draft layout for DIS 16063-41 "Methods for the calibration of vibration and shock transducers – Part 41: Calibration of laser vibrometers" and requests the secretariat to send it to the ISO/CS for circulation as a Draft International Standard.

Resolution 3 – PWI 16063-42

ISO/TC 108/SC 3 decides to leave PWI 6-16063-42 "Methods for the calibration of vibration and shock transducers – Part 42: Calibration of seismometers", at the preliminary stage and requests the potential project leader, Mr Yuji Otake, Japan, to provide the members of WG 6 with information material relevant to seismometers and to prepare a third preliminary working draft. The revised draft will be circulated to the members of WG 6 prior to discussion at its next meeting.

Resolution 4 – PWD 16063-32

ISO/TC 108/SC 3 decides to leave PWI 6-16063-32 "Methods for the calibration of vibration and shock transducers – Part 32: Resonance testing" (Revision of ISO 5347-14:1993) at the preliminary stage awaiting the potential project leader, Mr. Andrey Smirnov, Russian Federation, to prepare a third preliminary working draft with an extended scope for a combined revision of ISO 5347-14:1993 and ISO 5347-22:1997. The revised draft will be circulated to the members of WG 6 prior to discussion at its next meeting.

Resolution 5 – PWI 16063-23

ISO/TC 108/SC 3 decides to leave PWI 6-16063-23 "Methods for the calibration of vibration and shock transducers – Part 23: Angular vibration calibration by comparison to reference transducers" at the preliminary stage without allocation of a potential project leader at present.

Resolution 6 – PWI 11362

ISO/TC 108/SC 3 decides to leave PWI 11362 "Parameter identification of accelerometers by primary methods" at the preliminary stage and requests the potential project leader, Mr Thomas Bruns, Germany, to prepare a revised preliminary working draft. The revised draft will be circulated to the members of WG 6 prior to discussion at its next meeting.

Resolution 7 – PWI 21691

ISO/TC 108/SC 3 decides to leave PWI 21691 "Dynamic force transducer calibrations" at the preliminary stage.

Resolution 8 – ISO 16063-21 review

ISO/TC 108/SC 3 confirms ISO 16063-21:2003 "Methods for the calibration of vibration and shock transducers – Part 21: Vibration calibration by comparison to a reference transducer". At the same time it requests the secretariat to submit the corrections given in doc. 108/3 N 476 as corrected at the meeting to the ISO/CS for publication as a Technical Corrigendum.

Resolution 9 – ISO 16063-22 review

ISO/TC 108/SC 3 confirms ISO 16063-22:2005 "Methods for the calibration of vibration and shock transducers – Part 22: Shock calibration by comparison to a reference transducer".

Resolution 10 – IEC/FDIS 60747-14-4

TC 108/SC 3 recognizes the IEC SMB decision 132/13:

“SMB Decision 132/13 - Semiconductor Accelerometers - SMB/3740/DC

The SMB invites TMB to concur with the following proposal to IEC SC 47E and ISO/TC 108/SC 3:

to divide the existing draft IEC 60747-14-4 into two parts, Part A and Part B.

- Annexes A, B, and C, fall in Part A which will be immediately circulated as FDIS with IEC logo.
- Annexes D, E, F, G and H, fall into Part B, with the discussion restarting at the CD stage by a joint ISO/IEC WG, the resulting document to be issued with a ISO and IEC double logo.”

In response to that decision, SC 3 concurs with the IEC proposal to continue with the development of IEC 60747-14-4 part A with the following proviso: SC 3/WG 6 review the proposed standard prior to FDIS circulation. This review will only cover areas within the scope of SC 3. This proviso should ensure coherence between ISO and IEC regarding jurisdictional aspects of this issue. SC 3/WG 6 has appointed Messrs. Torben R Licht and David J Evans to act as points of contact for this review. SC 3 requests that Messrs. Licht and Evans receive the final official draft of part A of this document prior to processing by the IEC/CO to carry out their review. In addition, SC 3 stipulates that part B be deleted. All calibration methods described in the document consistent with the ISO 5347 and 16063 series should be substituted with normative references to these standards in part A. All calibration methods not consistent with ISO 5347 and ISO 16063 should be submitted as NWIPs for consideration in SC 3 except for methods unique to semiconductor accelerometers. For those methods SC 3 invites IEC/SC 47E to send participants to the next meeting of SC 3/WG 6 for the purpose of establishing a joint ISO-IEC Working Group involved in vibration and shock transducer calibration standards that are unique to semiconductor accelerometers.

Resolution 11 – WG 10, PWI 13377 and revision of ISO 2954

ISO/TC 108/SC 3 recognizes the resignation of the convenor of WG 10 and project leader for work item 10-13377 "Transducers and instrumentation for vibration condition monitoring of machines" (including revision of ISO 2954:1975 "Mechanical vibration in rotating machinery – Requirements for instruments for measuring vibration severity") and acknowledges that the chairman of ISO/TC 108/SC 3 will, at present, substitute as convenor and project leader. At the same time ISO/TC 108/SC 3 decides to ask WG 10 to continue with the work as a revision of ISO 2954 under the work item number 2954 and to delete work item number 13377.

Resolution 12 – ISO 8041 review

ISO/TC 108/SC 3 confirms ISO 8041:2005 "Human response to vibration – Measuring instrumentation". At the same time it requests the German delegation to prepare a draft for a Technical Corrigendum to account for a number of errors and inconsistencies pointed out in some of the comments from Germany given in doc. 108/3 N 466 and to submit this to the ISO/TC 108/SC 3 secretariat.