

**Minutes of the Transport Stresses Working Group of the
Committee for European Environmental Engineering Societies
Held on 16th February 1995 at The Dome Hotel Brussels**

Present at the Meeting of the Transportation Stresses Working Group (TSWG) were;

Mr. U. Braunmiller	GUS
Mr. E. Furrer	SSEE
Mr. K.H. Hansen	GUS
Mr. M. Dumelin	SSEE
Mr. C. Lalanne	ASTE
Mr. C. Karlsberg	SEES
Mr. T. Trost	SEES
Mr. J. Debille	Guest
Mr. D. Richards	SEE (Chairman)

Actions Arising

Although Ulrich Braunmiller had supplied the name and address of Soren Østergaard, the chairman had not been able to send him an invitation as intended. The chairman agreed to do so.

Bibliography

The original bibliography has now been distributed to the various societies. A short discussion took place on future intent. Thomas Trost agreed to collate any new references relating to transportation stresses. The members of the TSWG were encouraged to inform Thomas of any new references.

Systematization of Measurement Methodologies

A number of aspects were addressed under this heading.

CEN/TC 261 WG. Ulrich Braunmiller & Thomas Trost indicated that this working group activities still continue. The random vibration test (circulated and commented upon by the TSWG) is likely to be agreed. However, this will probably be without the test severities (which were the greatest cause of comment).

CEN/TC/320 WG. Ulrich Braunmiller reported that the preliminary meeting of this working group (on Transportation Quality) took place towards the end of September 1994. At the meeting two proposals were tabled. Currently the WG were trying to merge the two. In Ulrichs view this would prove difficult as the two proposals were radically different. One of the two proposals (the Danish one) was circulated with the minutes of the last TSWG. At the moment Ulrich did not have a copy of the alternative French proposal.

DIN 30787. Ed Furrer updated the meeting on the progress of DIN 30787 (on reporting transportation measurements). He said that it will shortly be published, for comment, as a DIN "yellow paper". As this would prevent circulation to the TSWG an early copy is attached to these minutes.

Monograph on Round Robin Methodologies. The chairman reported that work on this monograph was underway.

Technical Documents. Christiane Lalanne circulated a document he had written entitled "Mechanical Environment Test Specification Development Methods". Christiane kindly permitted the chairman to reproduce this document for circulation to the TSWG.

Presentation. Marcus Dumelin made a presentation (on behalf of Rolf Finger) on recent work undertaken by SSEE, to determine whether truck measurements made under the cargo bed were representative of

those made on its upper surface. Copies of the VU-foils used by Marcus are attached to these minutes. The TSWG thanked Marcus (and Rolf) for the presentation.

Round Robin Exercise

Following the success of the last round robin exercise some consideration has been given to both further work on the results from the original exercise and a new exercise. Three specific points of discussion were addressed at the meeting.

Round Robin Exercise on Transportation Shock. The concept of a round robin exercise on identifying shocks from within transportation vibration was put on “hold” at the last meeting until further information was available on an apparently similar exercise to be run by the IES. The chairman reported that it was looking more likely that the purpose of the IES exercise would be to investigate different numerical approaches to shock analysis. The concept of the TSWG exercise was aimed at identifying the difficulties of identifying shocks within vibrations. Ulrich Braunmiller reported that GUS was currently addressing the relationship between transport shock and vibration. In particular they had discussed the need for separate consideration of shock and vibration testing. They are intending to consider the separation of embedded shocks from within measured data in the near future. The chairman suggested that the TSWG may be of assistance in this. Some discussion took place on methods of combining shock and vibration transportation tests. In particular Thomas Trost explained the method they have established for a Swedish company.

Embedding Classic Shocks with Vibration. The chairman reported that the generation of a tape containing classic shocks embedded within defined vibrations was possible. A proposal to use such a tape as the basis for a round robin exercise was tabled by Karl-Heinz Hansen at the last meeting. Although the proposal had merit, it was felt to a largely “training exercise”. Whilst, this did not prevent CEEES undertaking such an exercise, it may involve a different group of participants than used for the last round robin. It was agreed that this suggestion be retained for consideration at a later date (probably after further work on the existing exercise - see below).

Further Work on the Original Exercise. A proposal to continue the work of the last round robin exercise was made, at the last meeting, by Ed Furrer. He expanded his suggesting at this meeting into a proposal to work out guidelines for data validation and analysis specifically for transportation data (copies of the VU-foils used by Ed are attached). The idea was to improve the estimates made by the last round robin by implementing better procedures. This is essentially the process used by the measurement & testing directorate of the EU to improve measurement quality. Ed Furrer undertook to look at what would be involved in generating suitable guidelines. Additionally the chairman undertook to contact Darrel Charles (Cranfield University) in the UK to see if he had more information that had already been published.

Brite-Euram

No response was been submitted to the current Brite-Euram call for proposals. However, future co-operation in this regard was considered likely.

Mil Std 810F

Several of the TSWG members had commented on the draft portions of Mil Std 810F circulated with the last minutes. No response had been received from the US nor any further portions for comment.

Any Other Business

Thomas Trost proposed that the TSWG undertake a comparison of different transportation testing standards. This was briefly discussed and Thomas took an action to identify the standards he thought should be compared.

It was agreed that a list of names and addresses of TSWG members would be circulated with the minutes.

Next Meeting

The next meeting of the TSWG will be held on the 21st September 1995 in Paris at a location still to be defined.

Distribution (including enclosures unless stated)

Enclosure 1 - Proposed DIN 30787

Enclosure 2 - Mechanical Environment Test Specification Development Methods

Enclosure 3 - Vu-foils of Marcus Dumelins Presentation

Enclosure 4 - Ed Furrers Proposal for Further Work on Round Robin Exercise

Mr. U. Braunmiller Less enclosure 2

Mr D. Charles

Mr C.G. Dalhl

Mr. J. Debille Less enclosure 2

Mr. M. Dumelin Less enclosure 2

Mr. R. Finger

Mr R. Frauenfelder

Mr P. Frostell

Mr. E. Furrer Less enclosure 2

Mr. K.H. Hansen Less enclosure 2

Mr K. Janousky

Mr H. Jansen

Mr. C. Karlsberg Less enclosure 2

Mr. C. Lalanne Less enclosure 2

Mr U. Ostblad

Mr. D. Richards Less enclosure 2

Mr T. Schriber

Mr H. Torstensson

Mr. T. Trost Less enclosure 2

Mr. B. Wouters

Dr. K. Ziegan

plus CEEES Secretariate

Enclosure 1

Proposed DIN 30787

Enclosure 3

Vu-foils of Marcus Dumelins Presentation

Enclosure 4

Ed Furrers Proposal for Further Work on Round Robin Exercise