

**Minutes of the Transport Stresses Working Group of the  
Committee for European Environmental Engineering Societies  
Held on 18th February 1999 at the Club Albert, Brussels, Belgium**

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

Dr. U. Braunmiller	GUS
Mr C. Broussy	ASTE
Mr J. Debille	BSMEE
Dr P. Dehombreux	BSMEE
Mr. M. Dumelin	SSEE
Mr H. Jansen	PLOT
Mr. D. Richards	SEE (Chairman)
Mr T. Trost	SEES
Dr K. Zieghan	GUS

### **Matters Arising**

Apologies were received from M. Juntunen, K. Ahlin and J. Moriceau.

A list of TSWG members, including corresponding members, was circulated. This list is attached to the minutes as Attachment No 1.

### **Systematisation of Measurement Methodologies**

**CEN TC 261** Thomas Trost reported that no meetings of Subcommittee No 1 have been held since the last TSWG. However a meeting was scheduled for 23rd March and Ulrich Braunmiller would be attending to present the SRETS results. Some discussion occurred as to the how the SRETS data would be used by SC1. Karl Zieghan reported that the Technical Committee (TC) had met at the EU. He explained that the EU had a set of expectations of the CEN committee as to how the TC would implement the EU directive. The commission had three criteria for the work of the TC and they had essentially met none of these.

**CEN TC 320 (Transport Quality)**. Karl Zieghan reported that he was no longer a member of this TC and had no information.

**DIN 30787**. Before the meeting Karl had supplied the chairman with an English language draft of the DIN. This had been prepared by Ed Furrer. Karl said that the GUS was proud to present this substantial, and he believed unique document, document. The starting point for the work was the IEST working practices prepared by Himenbleu, Piersol et al. The various parts of the document are in various stages of preparation. Some were published as "white" papers, some were currently been circulated for comment as "yellow" papers, the remainder are awaiting circulation. The final standard was expected to be published in June / July 1999. Karl said that GUS intended to supply the document to CEN & ISO. English language drafts of this DIN are available from the chairman.

**CEN TC104 WG 15**. David Richards reported on the recent TC 104 Working Group 15 meeting. This new working groups was created to establish databases on dynamic environments including transport (a sister group WG 14 was set up to establish databases on climatic environments - the convenor of that group is J. Moriceau). The main objectives of TC 104 WG 15 are;

- a. To identify data analysis methods suitable for collating mechanical environmental data.
- b. To collect mechanical environmental data in identified categories
- c. To collate mechanical environmental data into a database
- d. To verify the collected data and report on its validity
- e. To propose updates to IEC 60721-3.

A brief description of the scope and information to be collected by WG 15 is set out in attachment 2. This attachment is in fact a draft of the "request for data" to be used to approach potential participants. Anybody interested in contributing to the WG 15 database should contact the chairman.

**SRETS.** Ulrich Braunmiller gave a brief presentation on the progress of the SRETS work which is summarised below. The technical presentation he made was a precursor to that he intended giving to CEN 261 at the end of March. A particularly significant aspect of this presentation was the large variations in vibration severity levels evident when comparing current specification. However, the SRETS measurements had indicated almost the same variation even when measurements were made over similar routes, with similar payloads and similar vehicles.

Task 1 Identification of Damage Inducing Mechanisms. The report is now complete and has been printed as an EU report, available at Packforsk and the EU.

Task 2 Environmental Data. The measurements at PIRA/ J& B as well as Bosch are completed. A task report is completed.

Task 3 Methodological Strategies. The analysis and task report are complete.

Task 4 Testing Schedules Replicating the Damage Mechanisms of the Environment. Work and the task report is complete.

Task 5 Effects of Practical Testing Limitations. The task report is nearing completion.

Task 6 Comparison of Test Schedules with Field Trials. The task report is nearing completion.

Task 7 Practical Evaluation of the Test Schedules. This final task is underway.

**Monograph on Round Robin Methodologies.** The chairman apologised that this was not yet complete. A copy of the draft had been circulated before the meeting for discussion. However, time did not permit this. Work continues on this topic. Copies of the draft are available from the chairman.

### **Round Robin Exercise**

The chairman supplied a paper which addressed the results of the first round robin and included revised results of the second round robin exercise. However, time did not permit discussion of this paper and the result. Work continues on this topic. Copies of the draft are available from the chairman.

### **Presentation of PLOT**

Harro Jansen made a presentation of work been proposed by PLOT to acquire transportation data. The work is to be undertaken in association with the Dutch Packaging Society. Currently some 20 to 25 companies had agreed to take part. However, initial precursor work is been taken with only two companies. Harro was asking the group whether anybody would be interested in participating. Harro said that initial discussion with the various companies had indicated different people wanted different information. Some wanted general levels, some were interested in composite levels covering the entire transport train, some were interested in the levels for each phase and others levels per kilometre. If anybody is interested in this they should contact Harro directly.

### **Any Other Business**

Thomas Trost reported a Swedish conference on paper transportation.

Karl Zieghan Said that the 5th EU research framework was about to be initiated. Information on this is published by the EU.

### **Next Meeting**

The date of the next meeting of the TSWG is planned for 30th September 1999 in Switzerland.

**Attachments**

- 1 Names and Addresses of TSWG Members
- 2 IEC TC 104 Working Group 15

**Distribution**

As attachment 1  
plus CEEES President and Secretariat

**Attachment 1**  
**Names and Addresses of TSWG Members**

## **Attachment 2**

### **IEC TC 104 Working Group 15**

In order to permit the selection of realistic environmental test severities IEC Technical Committee (TC) number 104 have initiated a programme to update IEC 60721. That document is used by the environmental test procedures of IEC 60068, as well as numerous other IEC and ISO standards, to establish test severities. To facilitate the update of IEC 60721 a database of mechanical and climatic environmental information is being compiled. The work is being undertaken by two working groups (of TC104); one group is responsible for collecting and collating the climatic environmental data and the other responsible for the mechanical environmental data.

The two working groups are currently attempting to identify potential sources of environmental data. At this time the supply of the actual data is not required. Moreover, an expression of interest to supply data is not an obligation to do so. Should you be in possession of any data which may be of use in this International exercise we would be like to hear from you.

Although this approach was initiated by the working group collating the mechanical environmental data, information on available climatic environmental information is also welcome and will be passed onto the appropriate working group.

The conditions for which mechanical and climatic data are required include;

- Storage
- Handling
- Road Transport
- Rail Transport
- Sea Transport
- Air Transport - including; jet aircraft, propeller aircraft and helicopters.
- Installed Inside Buildings - including; industrial, domestic, office and laboratory.
- Installed Outside
- Installed in Road Vehicles
- Installed in Off Road Vehicles
- Installed in Rail Vehicles
- Installed in Ships
- Installed in Aircraft - including jet aircraft, propeller aircraft and helicopters.

The working group is interested in any mechanical environmental data (i.e. shock, vibration and acceleration) relating to the above conditions. The extent, type and format of any data that you may have available is not critical. Even a small amount of information may prove useful. This is because it will almost certainly prove necessary to verify the database by comparison with independent data from similar environmental conditions. As such even limited data may prove crucial to in this verification process.

The only criteria we are is that we would ask that any data should be “transportable” that is it should relate to the platform or transport medium and not specific to a particular item of equipment. We would also ask that the data has supporting documentation (although that document is not required at this time) which indicates how the data was acquired and processed. Exhaustive documentation is not expected, indeed one of the objectives of the working groups is to set documentation requirements and criteria for future data collection exercises.

It is anticipated that most participants in this exercise will submit data on an open access basis. Obviously, participants contributing data on such a basis will have access to the entire “open access” database. However, should confidentiality be required this is also possible. In such a case the participants data will not be included in any final database but could be used to verify other data.