

ASTM SUBCOMMITTEE E17.52
on
TRAFFIC MONITORING DEVICES
Minutes of December 5, 2000, Meeting
Rosen Centre Hotel - Orlando, Florida

CALL TO ORDER

The meeting was called to order at 1:10 p.m. by Chair, Luz Elena Y. Mimbela. The following were present:

Members

John Hamrick
Perry Kent
Ralph Gilman
Rudi Schoenmackers
Clyde Lee
J. Mulder Brown
Larry Klein
Jerry Legg
Ryan Gidluck
William Tansil

Non-members

Edward Duffy
Bill McCall
Farideh Amiri
Jeff Patton
Rick Stalowski

MINUTES

Minutes of the June 20, 2000 meeting were approved as written.

TASK GROUP REPORTS

E17.52.92.2 - Pneumatic Road Tube (Perry Kent - Chairman)

Perry Kent reported on the status of the standard specification titled "Standard Specification for Pneumatic Tubing for Roadway Traffic Monitoring Devices." Dr. Clyde Lee revised the existing version of this standard. The revised draft is included as attachment 1.

Also, the current draft contains a reference to a pressure plate device used for repeated deformation of a road tube test specimen in section 8.1 (Procedure for Evaluating High-Temperature Performance Under Repeated Loads). The subcommittee decided that this device needed to be located or at least detailed instructions as to how it should be built needed to be located. As of January 23, 2001, this pressure plate deformation device had not been found either as a whole or instructions as to how to make one. Therefore, plans are to contact road tube manufacturers and identify another test for evaluating high-temperature performance under load for road tubes. Once another method is identified, it will be incorporated into the current draft. Plans are to review the draft again in June and make a decision at that time if the draft is ready for balloting once more.

E17.52.97.1 – Test Methods (Chairman - John Hamrick)

John Hamrick reported on the status of the standard test method titled “Test Method for Validating Vehicle Data Collection Devices Used for Vehicle Counts & Classification.” During the December, 2000 meetings, there was considerable discussion on the type of standard this draft should be (e.g. Test Method, Specification, Classification, Practice, Guide, or Terminology). To help with the discussion on the type of standard to develop, Larry Klein referred the group to an article by Richard Wilhelm titled “Know Your Types of Standards” that was published in the October 2000 issue of Standardization News on pages 22 and 23. After the discussion, it was decided that the draft should be a specification with test method such as the WIM standard. Since the current draft only includes a test method, the rest of the work during the December 2000 meetings concentrated on the development of the specification portion of the draft.

Larry Klein volunteered to lead the development of the specification portion of the draft. It was decided that the specification portion of the draft will be based on performance criteria for specific equipment types. The equipment types will be delineated based on equipment use (e.g. traffic counting, speed monitoring, etc.). During the Task Group meeting on December 4, 2000, the following types were identified:

- Type A – Traffic Counter
- Type B – Traffic Counter/Classifier (subclasses: B1-axle, and B2-length)
- Type C – Incident Detection (subclasses: C1 and C2 one with density and one without)
- Type D – Speed Monitoring
- Type E – Metering
- Type F – Signal Control
- Type G – Enforcement (subclasses: G1-speed, G2-red light, G3-dimensions)

The following function parameters were used to develop the types and subclasses:

0. Axle count
1. Vehicle count
2. Speed
3. Class by length
4. Class by axle
5. Vehicle presence
6. Lane occupancy
7. Traffic density
8. Time stamp

Several action items were identified to continue with the development of the specification. These action items are listed below with the person(s) responsible for their completion also listed:

- Define functions – Larry Klein and John Hamrick
- Develop matrix of functions – Ralph Gillman
- Collect performance requirements - All
- Mention applications – Ralph Gillman

E17.52.97.4 - Revamp E1572 - 93 (Chairman - John Hamrick)

The revamping of E1572 - 93, which is the "Standard Practice for Classifying Highway Vehicles from Known Axle Count and Spacing" will include replacing the existing program with a new C⁺⁺ program developed by the Idaho State Transportation Department.

E17.52.97.3 - Traffic Device Interconnect (Chairman - Peter Keen)

Rick Stalowski reported on the status of the DCM working group standards development activities. Rick discussed the latest version of the draft object tree structure developed by the DCM working group (see attachment 2). Rick encourages everyone to review the draft. However, comments will not be accepted at this time, as work is still underway to finalize the draft.

E17.52.98.1 - Review of E1442-94 (Chairman - Perry Kent)

The "Standard Practice for Highway Traffic Monitoring," E1442-94, was recommended for withdrawal from the Annual Book of ASTM Standards. The recommendation was balloted. A negative was submitted from Ralph Gillman opposing the withdrawal of E1442-94 on the grounds that 1)it is a useful standard whose defects can be fixed, and 2)the suggestion to incorporate it into the FHWA's Traffic Monitoring Guide won't be followed. The negative was ruled non-persuasive with the following vote count: 8 (for), 1 (against) and 1 (abstain). Therefore, E1442-94 will be withdrawn from the Annual Book of ASTM Standards and thus Task Group E17.52.98.1 will be disbanded.

Also, Ralph's suggestion that subcommittee E17.54 take over E1442-94 was not accepted by E17.54. Please note that this will be the last mention of this standard.

E17.52.98.2 - Piezo Sensor (Bill McCall, Chairman)

Piezo sensor task group chairmain, Bill McCall reported on the status of the development of the standard practice for using and installing piezoelectric sensors. Bill presented a first draft of this practice. The possibility of including the Kistler Quartz piezoelectric WIM sensor in this practice was discussed. Plans are to talk with Kistler personnel and get their input and discuss this at the June 2001 meeting.

E17.52.98.3 - Revamp of E1318 (Perry Kent, Chairman)

The revision of the "Standard Specification for Highway Weigh-in-Motion (WIM) Systems with User Requirements and Test Method" was submitted for ballot during the April-May 2000 balloting process and passed. However, some important comments were not addressed in this revision. Plans are to submit additional changes during the next balloting process. The latest version of E1318 is attached (see attachment 3).

Also, Clyde Lee reported an error in the AASHTO Pavement Design Guide dealing with the ESAL numerical example. A suggestion was made to write a letter from E17 to AASHTO informing them of the error.

NEW BUSINESS

E17.52 Subcommittee members were hosted by Mr. Ron McCollum and Dr. Amos J. Chenoweth of Schwartz Electro-optics, Inc. in Orlando Florida from 9:30 to 11:30 a.m. on December 5, 2001. The purpose of the field trip to the SEO Orlando facility was to educate the group on non-intrusive vehicle detection technologies. Specifically, examples of the types of devices commercially available and their applications. This type of information will prove valuable when the subcommittee tackles the development of the specificaiton and test method that will include non-intrusive devices as well as intrusive. The field trip proved to be both informative and enjoyable!

FUTURE MEETINGS

June 24-27, 2001 - Norfolk, VA

December 2-5, 2001 – Dallas, TX

June 23-26, 2002 – Salt Lake City, UT

ADJOURNMENT

The meeting was adjourned at 5:00 pm.