



**AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR-CONDITIONING ENGINEERS, INC.**

Technical Committee TC 5.9 - Enclosed Vehicular Facilities

Meeting Minutes - June 29, 2004 - Nashville, TN

**Paul Miclea called the meeting to order at 3:40 PM.** 7 out of 12 voting members present provided quorum.

**Review of prior TC 5.9 Meeting Minutes (January 27, 2004 - Anaheim, CA).** John Murphy made a motion to approve the minutes; John Klote seconded the motion. The minutes were approved without revision.

**Section 5.0 Announcements:** TC5.9 Chair Paul Miclea reported that the individual TC websites were to be linked to the main ASHRAE website (effective July 1<sup>st</sup>), and that a standard format for future TC meeting minute preparation will soon be distributed. He also reported that improvements were being made to inter-committee communications - in the form of general message forwarding to the individual TC chairs, and that ASHRAE was continuing efforts to expand membership. In addition, Paul noted that seminar presentations were now being videotaped for future DVD distribution, and that electronic (chapter) links were being considered within the CD-version of the ASHRAE handbooks. Finally, he noted that ASHRAE had reported improvements in the Program organization/proposal submittal process via members' completion and filing of web-based forms.

**Program Sub-Committee Report:** Sub-Committee Chair Ray Sinclair made note of the Program events that were part of the Nashville meeting agenda, and summarized the proceedings of the TC5.9 Program Sub-Committee meeting (1:00 PM - 2:30 PM, June 29, 2004). During the Sub-Committee meeting, each of the TC5.9 Program scheduled events was re-visited in terms of: event type, proposed meeting date, topic, planned contributors and chairperson availability. The following is the current TC5.9 Program event status:

- **Nashville, TN (June 26-30, 2004)**

NA1: Seminar - 'Diesel Locomotives in Enclosed Vehicular Spaces' (Chair: Bob Henry)  
Bob reported that this event commenced as scheduled at 8:00 AM on June 29<sup>th</sup>, and that 16 guests attended. Few questions were asked during the Q&A segment and the slide projector had a minor malfunction that caused a delay in a presentation, but the event was rated favorably on the review sheets.

NA2: Seminar - 'Design Considerations to Limit Dispersion of Immediately Harmful Contaminants in Large Buildings and Enclosed Vehicular Facilities' (Chair: Paul Miclea)  
Five presentations scheduled for 8:00 AM on June 30<sup>th</sup> in Jackson Rooms C/D.

NA3: Poster Sessions - 'CFD-Based Parametric Study of Ventilation and Diesel Exhaust in Locomotive Facilities' and 'Overview of Existing Guidance and Ventilation Approaches for Control of Diesel Exhaust in Locomotive Facilities'  
Commenced as scheduled at 9:00 AM on June 29<sup>th</sup> in Tennessee Ballroom C.

- **Orlando, FL (February 5-9, 2005) – registration/submittal deadline is August 6, 2004**

OR1: Symposium - 'Ventilation and IAQ in Large Mass Transit Facilities' (Chair: G. Hadjisophocleous)

OR2: Seminar - 'Thermal Comfort and IAQ in Enclosed Vehicular Facilities' (Chair: Greg Sanchez)

OR3: Forum - 'Fire Detection & Instrumentation in Tunnels' (Chair: Sean Cassady)

- **Denver, CO (June 25-29, 2005) - registration deadline is September 24, 2004**

DE1: Seminar - 'Current Specifications & Practices for Enclosed Vehicular Facility Ventilation Equipment' (Chair: Gary Kile); possible combination with 'Testing & Maintenance of Life Safety Equipment' (Chair: Robert Smith)

- **Chicago, IL (January 14-18, 2006) - registration/submittal deadline is August 5, 2005**

CH1: Symposium - 'Evacuation Methods of Analysis in Mass Transit Facilities' (Chair: Jeffrey Tubbs)

CH2: Seminar - 'Emergency Transit Station Ventilation CFD Model Benchmark Roundtable'  
(Chair: TBD)

CH3: Symposium - 'Equipment Testing, Specifications and Performance' (Chair: Sudhir Agrawal)

- **Quebec City, CANADA (June 24-28, 2006)** - registration deadline is September 23, 2005

QC1: Symposium - 'Methods of Estimating Fire Heat Release Rates of Transit Vehicles' (Chair: TBD)

QC2: Seminar - 'Comparison of Tunnel Ventilation Simulation and Field Tests' (Chair: Jurij Modic)

QC3: Seminar - 'Fire Detection and Instrumentation in Tunnels' (Chair: TBD)

- **Dallas, TX (January 27-31, 2007)**

DA1: Forum - 'Alternate Fuel Vehicle Facilities' (Chair: TBD)

DA2: 'Guidelines to Improve Performance of Fans After Installation'

DA3: 'Commissioning and Manufacturing Requirements of Ventilation Equipment'

DA4: 'Sustainable Design'

DA5: 'CBR Issues'

DA6: 'Standards'

A discussion was held regarding ASHRAE's recording of Program seminar presentations for DVD packaging. One concern cited in this area was the possible distribution of unsanctioned materials - for which the sponsoring TC should either pre-review the presentation materials, or insert a disclaimer noting that the presentation has not been endorsed by the TC. Another concern was the potential disclosure of security-sensitive information - for which the presenter should be held responsible to either remove the sensitive information, or obtain the necessary clearance from the appropriate authority. TC5.9 Chair Paul Miclea to notify ASHRAE of these concerns.

**Research Sub-Committee Report:** Sub-Committee Chair John Murphy reported that he had drafted a new Research Topic Acceptance Request (RTAR), entitled 'Subway Vehicle Fire Scenarios'. As discussed in the TC5.9 Research Sub-Committee meeting (2:30 PM - 3:00 PM, June 29, 2004), the RTAR is in need of cost estimates. Estimates were requested of G. Hadjisophocleous for Phase One (physical testing), and from Igor Maevski, Paul Miclea, Greg Sanchez & Jeffrey Tubbs for Phase Two (CFD analyses). The Phase One estimate was to be based upon the possible transport of truck-less Amtrak coaches to within 3 km of the test site, and the potential funding, up to a maximum of \$150k, of Phase One by Amtrak. The completed RTAR will be distributed for TC5.9 vote during the week of July 26<sup>th</sup>; the intended submittal date for the RTAR is August 1<sup>st</sup>.

**Presidential Ad-Hoc Committee Recommendation #10:** As a result of TC5.9's receipt of Recommendation #10, a task group discussion was held during the Sub-committee meetings (3:00 PM - 3:20 PM, June 29, 2004). The Ad-Hoc Committee requested TC5.9 to 'develop guidance to address the vulnerability of enclosed vehicular facilities to extraordinary incidents'. John Murphy suggested that a special forum be requested for the 2005 Winter Meeting in Orlando, FL. Greg Sanchez made a motion for TC5.9 to adopt this suggestion; Gary Kile seconded the motion. This forum will be organized by ASHRAE; TC5.9 will provide the moderator (Paul Miclea).

**Handbook Sub-Committee Report:** Sub-Committee Chair Colin Macedo reported that a correction had been issued to the Railroad Tunnels section of the 2003 HVAC Applications Handbook edition, and that authors were being organized for the 2007 Handbook edition. The following authors were confirmed: Art Bendelius (Road Tunnels), Paul Miclea (Rapid Transit), Joe Grella/Bob Henry (Railroad Tunnels & Diesel Locomotive Facilities), John Murphy (Equipment - Fans) and, Roger Lichtenwald/Gary Kile (Equipment - Dampers). Author confirmations are needed for the following chapter sections: Tollbooths, Parking Garages, Bus Garages and Bus Terminals. The Diesel Locomotive Facilities section is to include the Handbook material prepared as a result of RP #1191; new chapter sections are still under consideration for Automotive Repair Facilities and CNG Facilities.

In the earlier TC5.9 Handbook Sub-Committee meeting (3:20 PM - 3:45 PM, June 29, 2004), it was decided that the Chapter 13 Introduction needed to be expanded, and that the entire Handbook chapter would need to be re-written in order to fully integrate the new Introduction. Art Bendelius was named as lead author for the Introduction section. The deadline for the submittal of the Chapter 13 manuscript (2007 edition) was noted as June 2005.

**Liaison Reports:** Asesh Raychaudhuri reported that the TC5.1 Handbook chapter review was in-progress, and that co-reviewers were being sought from TC5.9 (with Asesh Raychaudhuri and Chuck Howard coordinating). TC5.1 is also seeking TC5.9 co-sponsorship of Program events during the 2005 Winter Meeting in Orlando, FL. Gary Lougheed reported on the TC5.6 events, including Forum 26 - 'What Fire and Smoke Control Research is Needed?' (which is co-sponsored by TC5.9), that is scheduled for 10:00 AM on June 30<sup>th</sup>. Gary also noted that TC5.6 was planning a seminar for the 2005 Winter Meeting in Orlando, FL.

Mark Colino read an update of the NFPA 130 committee activities that was provided by Chair Bill Kennedy. Possible enhancements to the 2006 edition of NFPA 130 standard have been compiled; the list of text revisions will be distributed to the TC5.9 membership for review. Comments should be directed to the specific NFPA 130 Task Group leaders; a list of which (with e-mail addresses) will be provided when the text revisions are distributed. Input was requested by mid-September 2004. Art Bendelius reported that the 2004 edition of NFPA 502 standard was to be published in August/September of 2004; work will then begin on the 2007 edition of NFPA 502.

Art Bendelius also provided a liaison report for PIARC activities. Later this year, PIARC is set to publish a new 12-chapter volume entitled, 'Systems and Equipment for Fire and Smoke Control in Road Tunnels'. This new text will be a companion volume to PIARC's current text entitled, 'Fire and Smoke Control in Road Tunnels'.

Kirk McDaniel reported on the mining industry and noted that a North American Mine Ventilation Symposium was held during May 2004 in Anchorage, AL. Approximately 90 technical papers were presented. Two general discussion items were the advanced age of the known experts on mine tunnel ventilation, and the need for an international certification program on mine ventilation. The next symposium is scheduled for 2006 at Penn State University; an International Mining Congress is scheduled for 2005 in Brisbane, Australia.

Paul Miclea reported that Tunnel Management International was planning a Tunnel Fires Conference for October 2004 at South Bank University in London, England. Paul also reported that the American Public Transit Association had met in Miami, FL earlier this year, and had conducted forums on both safety and ventilation.

**Membership:** Paul Miclea made note of ASHRAE's desire for TC membership growth. Jeffrey Tubbs, Jim Guinan, Ian Ong and Arun Vohra all requested to become corresponding members of TC5.9. Members were requested to review their personal data on the official ASHRAE TC rosters.

**Website:** Colin Macedo reported for TC5.9 Webmaster Sean Cassidy. The new RTAR proposal and a list of authors for the 2007 Handbook edition will be posted on the website. Member's login/password data repeated to facilitate access. In anticipation of the transfer to the ASHRAE server, the TC5.9 website files will be backed-up.

**New Business and Comments:** Arun Vohra introduced himself as a TC5.9 meeting guest and a representative of the United States Department of Energy. On behalf of the US DOE, Arun expressed an interest in energy usage as it relates to ventilation system design for enclosed vehicular facilities.

Jim Guinan reported that the IBC has been adopted (in some form) by 48 states, and that the IBC excludes fixed guideway systems. Jim also noted that the IBC is developing a new section for 'underground buildings', where the extent of smoke control system requirements is dependent upon the depth of the room below ground.

**Adjournment:** John Klote made a motion to adjourn; Ray Sinclair seconded the motion. TC5.9 Chair Paul Miclea adjourned the meeting at 4:40 PM. Next meeting is scheduled for February 8<sup>th</sup> in Orlando, FL.