

**AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR-CONDITIONING  
ENGINEERS, INC.  
1791 Tullie Circle, N.E./Atlanta, GA 30329  
404-636-8400**

**TC/TG/MTG/TRG MINUTES COVER SHEET**

(Minutes of all Meetings are to be distributed to all persons listed below within 60 days following the meeting.)

TC/TG/MTG/TRG No. TC 5.9 DATE June 30, 2015

TC/TG/MTG/TRG TITLE Enclosed Vehicular Facilities  
DATE OF MEETING June 30, 2015 LOCATION Atlanta, GA

VOTING MEMBERS PRESENT	YEAR APPT'D - TERM ENDING	VOTING MEMBERS ABSENT	YEAR APPT'D - TERM ENDING	EX-OFFICIO (CM) MEMBERS AND ADDITIONAL GUEST (G) ATTENDANCE
Igor Maevski Bill Lampkin Ahmed Kashef Jane Miller Robert Smith	2011-2015 2012-2016 2012-2016 2014-2018 2015-2019	Nader Shacheraghi Andrew Louie John Murphy	2014-2018 2014-2018 2014-2018	Kevin Chang (CM) Yuan Li (CM) David Newman (CM) Aresh Raychaudhuri (CM) Troy Goldschmidt (CM) Tom O'Dwyer (CM) Arthur Bendelius (CM) Jacob Carr (CM) Darby Benroth (G) Elias Papadopoulos (G) Michael Collarin (G)

**DISTRIBUTION**

*All Members of TC/TG/MTG/TRG plus the following:*

TAC Section Head:	Walter Grondzik
TAC Chair:	Kenneth Peet
All Committee Liaisons As Shown On TC/TG/MTG/TRG Rosters:	
Manager Of Standards Manager Of Research & Technical Services	Stephanie Reiniche Mike Vaughn

**AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR-CONDITIONING ENGINEERS, INC.**  
Technical Committee TC 5.9 – Enclosed Vehicular Facilities  
Meeting Minutes – 30 June, 2015 – Atlanta, GA

Igor Maevski called the meeting to order at 3:30 pm.

There were 5 out of 8 voting members present. The voting member attendance met requirements for a quorum.

Minutes of January meeting in Chicago were distributed and approved.

#### Chair Comments

TC 5.2 expanding scope of their TC – added fans, dampers to include an entire system – not just the ductwork, excluding chimneys

- How will this affect other TCs? Do they have right personnel to handle the rest of the system here
- Fans, ducts – others are split in the handbook
- Fans may not always include ducts
- TC is asking for comments
  - o Ductwork for TC projects is not same as for standard HVAC; should not impact this TC
  - o Other TC groups such as 5.1, 5.3 may have right expertise – could be a concern with change to TC 5.2

Letter to employer – thank you for involvement

Add discipline to on-line Bio

Need volunteers to review papers – send names to Igor

Subcommittee can meet via conference call

Standard 203 office equipment in buildings - just published

Upcoming meetings:	Orlando	January 23-27, 2016
	St. Louis	June 2016
	Las Vegas	January 2017

#### Orlando – 8 tracks

- 1 Systems & Equipment
- 2 Fundamental and Applications
- 3 Design Build
- 4 International Design
- 5 Standards, Guidelines and Codes
- 6 Cutting Edge Technologies
- 7 The Great Debate
- 8 Modern Residential Systems

Section 5 report presented by Ken Peet. The report included the following Topics:

Meeting Wednesday from 7 to 10 am with input from all TC heads. Will include discussion of TC 5.2 changes; advise if you have any comments.

Activity Report due tonight - June 30, 2015

**Program Sub-Committee Report:** (Tom O'Dwyer for Mark Colino)

Co-sponsor where possible. Internal Forums and Seminars to be at 1 pm instead of 5 pm on Tuesdays of conferences.

**2015 Annual Meeting – Atlanta, GA (Conference Paper Abstracts are due Sep 22, 2014; Conference Paper Submittals are due Jan 5, 2015; Seminar & Forum Proposals are due Feb 9, 2015)**

AT3 (Internal Forum) – “Discussion on Recent WMATA Fire Event”; Lead: David Newman **TODAY**

AT4 (Internal Presentation) – “Smoke Spread in Rail Cars”; Presenter: Ahmed Kashef for George Hadjisophocleous **TODAY**

**Note – there was conference paper by Andrew Rhodes/ARUP regarding ventilation of stations; was during the SPC217 meeting – similar topic to SPC217.**

**2016 Winter Meeting – Orlando, FL (Conference Paper Abstracts are due Mar 23, 2015; Conference Paper Submittals are due July 6, 2015; Seminar & Forum Proposals are due Aug 10, 2015)**

OR2 (Seminar) – “Ventilation Design for Road Tunnels Based on Risk Analyses”; Chair: Ahmed Kashef; Presenters: Alex Devs, TBD; Co-sponsor: TC5. Ahmed to review with Alex before deadline.

OR4 (moved to Internal Forum) – “Perspectives on Design-Build Projects”; Chair: Mark Colino; Presenters: Owner (TBD), Engineer (TBD), Manufacturer (TBD); Co-sponsor: TBD *move to forum, internal presentation with TC 5.9*

*Orlando Conference Tracks: Fundamentals & Applications; Systems & Equipment; Design Build; International Design; Standards, Guidelines and Codes; Cutting-Edge Technologies; the Great Debate (divergent methods for accomplishing the same task); Modern Residential Systems*

**2016 Annual Meeting – St Louis, MO**

ST1 (change to conference paper or tech paper) – “Innovative Rail Station Ventilation”; Chair: Mark Colino; Presenters: Tom O’Dwyer, Jim McCarron; Co-sponsor: TC5.6

ST2 (Seminar) – “Indoor Air Quality **Standard** in Road, Rail and Mass Transit Tunnels”; Chair: Igor Maevski; Presenters: Yuan Li, David Newman, Mark Colino, Robert Smith; Co-sponsor: TC 4.10

ST3 (Seminar) – “Introduction to Enclosed Vehicular Facilities”; Chair: Tom O’Dwyer; Presenters: Tom O’Dwyer, Jim McCarron, David Newman; Co-sponsor: TBD

*St Louis Conference Tracks: TBD*

**Future Program Topics**

Can Wireless Control Improve Ventilation Performance (Champion: Steve Presser)

Air Cleaning for Tunnels (Champion: Igor Maevski)

Extreme Events Ventilation Requirements (Champion: Greg Sanchez)

Best Practices for Enclosed Vehicular Facilities (Champion: Tom O’Dwyer)

Tunnel Ventilation Velocity Profile on Egress Calculations (Champion: Ahmed Kashef)

Matrix Development to Achieve LEED Certification in Station Design (Champion: Mohammad Tabarra)

Platform Screen Doors (Champion: Greg Sanchez)

Natural Ventilation Applications in Enclosed Vehicular Facilities (Champion: Mark Colino)

BIM in Tunnel Ventilation Design (Champion: Igor Maevski)

Parking Garage Ventilation (Champion: Troy Goldschmidt)

Special Ventilation Issues in High-Speed Rail Tunnels (Champion: Ian Ong)

Boundary Conditions for Tunnel Ventilation Modeling (Champion: Tom O’Dwyer)

**Standards Sub-Committee Report: (Yuan Li)**

The new standard project committee (SPC) 217 **Non-Emergency Ventilation in Enclosed Road, Rail and Mass Transit Facilities**. The committee is seeking new members. Interested persons should contact Igor Maevski, David Newman or Kevin Chang. Items of note:

- Six working groups have been established

- Committee met from 8 to 12:30 earlier today
- Conference call will continue with conference calls before next meeting in Orlando (tentatively Tuesday 9:00 AM to noon)
- Committee is seeking writers and reviewers
- A web site has established for SPC 217: <http://spc217.ashraepecs.org>

Should we reschedule SPC meeting? Agreed to keep on Tuesday – same day for all meetings.  
Also review if PDH credits are available for work on SPC standard – for New York State.

**Handbook Sub-Committee Report:** (Tom O'Dwyer for Andrew Louie)

No revisions will be made to 2015 Handbook  
Next update is scheduled for 2019.:

Send any changes to Andrew.

The expected significant changes to the 2019 handbook will be related to **Parking Garages** and the addition of a section on **Controls**.

Troy Goldschmidt presented one Parking Garage application:

- International going to ductless systems – US not as quick for this move
- Various international standards – not consistent
- Jet fans common – with CO2 sensors, various temperature requirements, fire sizes
- CFD - may be under very different conditions – fire size, boundary layer conditions, etc.

**Research Sub-Committee Report** (Ahmed Kashef)

1690-WS Interaction of Tunnel Ventilation Performance with Fixed Fire Suppression 5.09/5.06

- Resubmit Work Statement or Drop
  - First submission of WS was returned with comments by RAC in June 2014. 2<sup>nd</sup> draft returned with comments in Oct 2014. WS must be submitted and approved for bid by July 1, 2017 or topic will be dropped permanently by RAC. RAC conditionally approved RTAR at 2012 Winter Meeting.

1715- RTAR Pressure Transients in Rail Tunnels and Underground Stations 5.09

- Resubmit RTAR or drop
  - RAC rejected RTAR after 2014 Winter Meeting and 1<sup>st</sup> submission as RTAR to RAC. By rejecting this RTAR, RAC is strongly suggesting to the TC that this particular topic be dropped from the TC Research Plan based on the information that has been provided so far. Resubmit Revised RTAR with letter explaining how RAC's comments were addressed in revision with new TC vote if TC wishes to continue this topic or notify RAC that RTAR has been dropped by TC for further consideration.

**Web Site:** (David Newman)

ASHRAE is working to simplify our input (from David); please submit any information to David to add to web page.

**Liaison Reports:**

TC 5.1 (Asesh Raychaudhuri) Energy Performance - will co-sponsor

TC 5.6 (Josiah Wiley) absent

NFPA 130 (Tom O'Dwyer) upcoming changes in next 6 months

NFPA 502 (Igor Maevski) meeting in October for discussion of public comments

APTA - no update

Mining Industry (Jane Miller) 2015 Mine Ventilation Symposium - Virginia Tech

**Adjournment** Igor Maevski adjourned the meeting at 5:00 pm

Next Meeting scheduled for Orlando, FL - Tuesday, January 26, 2016.  
Recorded by Jane Miller, TC 5.9 Secretary.

Seminar presented by Ahmed and David at 5 pm: total of 31 in attendance