

**AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR-CONDITIONING
ENGINEERS, INC.
1791 Tullie Circle, N.E./Atlanta, GA 30329
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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 27, 2017

TC/TG/MTG/TRG TITLE Enclosed Vehicular Facilities
DATE OF MEETING June 27, 2017 LOCATION Long Beach, CA

VOTING MEMBERS PRESENT	YEAR APPT'D - TERM ENDING	VOTING MEMBERS ABSENT	YEAR APPT'D - TERM ENDING	EX-OFFICIO MEMBERS AND ADDITIONAL GUEST ATTENDANCE (CM) (G)
Kevin Chang Jane Miller Asesh Raychaudhuri Troy Goldschmidt Yuan Li Robert Z Smith	2015-2019 2014-2018 2015-2019 2016-2020 2016-2020 2015-2019	John Murphy David Newman Andrew Louie Nader Shadcheraghi	2014-2018 2015-2019 2014-2018 2014-2018	Ahmed Kashef (CM) Michael Feuser (CM) Igor Maeviski (CM) Kumaresan Mariappan (CM) Yoon Ko (PM) David Hahm (PM) Larry Stegall (CM) Mina Samini (PM) Duncan Phyfe (PM) Richard Yargus (CM) Ian Ong (CM) Chris Hawkins (G) John Klote (CM) Anthony York (CM) Kyle Vach (G) Joe Davis(G) Matthew Davey (PM)

DISTRIBUTION

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

TAC Section Head:	Kenneth Peet
TAC Chair:	Michael Biderbeck
All Committee Liaisons As Shown On TC/TG/MTG/TRG Rosters:	James Bochat, James Arnold, Harris Sheinman David John, Arsen Helikov, Michael Vaughn
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 – 27 June 2017 - Long Beach, CA

Kevin Chang called the meeting to order at 3:30 pm.

There were 6 of 10 voting members present. The voting member attendance met requirements for a quorum.

Chair Comments by Kevin Chang.

Section 5 - report presented by Ken Peet. *(Activity Report due June 27, 2017)*

Subcommittee reports

Program Sub-Committee Report: (Yoon Ko)

2017 Annual Meeting – Long Beach, CA

Conference Paper – “Ductless Car Park Ventilation: Global Trends and Design Practices”; Author: Troy Goldschmidt; Conference Paper Tuesday June 27 5-6 pm (after TC 5.9 general meeting)

2018 Winter Meeting – Chicago, IL

10 tracks

- 1 *Systems & Equipment*
- 2 *Fundamentals & Applications*
- 3 *Standards, Guidelines & Codes*
- 4 *Earth, Wind & Fire*
- 5 *Transportation IAQ & Air Conditioning*
- 6 *Tall Buildings*
- 7 *Modeling Throughout the Building Lifecycle*
- 8 *Heat Exchange Equipment*
- 9 *Refrigerant Mini Track @ Expo*
- 10 *Residential Mini Track @ Expo*

Seminar submitted and approved under “Earth, Wind & Fire” track:

- Ventilation Equipment and Systems for Underground Railway Facilities
- chaired by Igor Maevski
 - co-sponsor with 5.1, 5.6

2018 Annual Meeting (Houston, TX)

Tracks

- 1 *HVAC&R Systems & Equipment*
- 2 *Fundamentals & Applications*
- 3 *District Energy & Cogeneration Plants*
- 4 *Safeguarding your HVAC&R System*
- 5 *Residential – Modern buildings in Hot and Humid Climates*
- 6 *Commissioning – Optimizing New & Existing Buildings and their Operation*
- 7 *Research Summit*
- 8 *HVAR&R Control Freaks*
- 9 *HVAC&R Analytics*

Conf paper due August 28 / abstract

Suggested: Design fire for car park

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)
Ventilation Design for Road Tunnels Based on Risk Analyses (Champion: Ahmed Kashef)
Perspectives on Design-Build Projects (Champion: Mark Colino)

Standards Sub-Committee Report: (Yuan Li)

Committee for SPC 217 met today from 7:30 am to noon. This committee is developing a new standard "Non-Emergency Ventilation in Enclosed Road, Rail and Mass Transit Facilities".

- *Long Beach SPC217 meeting met this morning, 7:30 to 12:15 today.*
 - *Reviewed Chapter 9 this morning – reviewed all but Appendix C, general overall agreement*
 - *Will continue review/discussion by conference call between ASHRAE meetings, generally every 2 months*

Handbook Sub-Committee Report: (Andrew Louie chair – Kevin Chang presenting)

On track for 2019 update:

NEED TO REVIEW PRIOR ON PORTAL SITE BY ALL VOTING MEMBERS

- **Suggest contacting all voting member, to review portal or send copy/locked version**
 - **Forward to all member soon, to allow comments – and follow-up review PRIOR to January**
- **Troy to contact Andrew**

Vote in Jan 2018 meeting – plan longer handbook sub-committee mtg/full - 60 pages
Need to review all references/verify no conflicts, up to date

To Submit - May 3, 2018

Suggestions on wireless, warehouse, etc - needs to be reviewed by all

EDITING – need at least one consultant, one mfg, one owner for each section

- Consultants David Newman, Igor Maevski
- Manufacturers Michael Feuser, David Presser
- Owners Kevin Chang, suggested to contact Elias Papadopoulos
- Add section on Car Parks Troy Goldschmidt

Research Sub-Committee Report (Ahmed Kashef)

One active work statement - 1690 (fixed fire suppression)

On the books for 5-6 years, now with strong interest FHWA

Phase 1 – most funding from FHWA, with \$25k from ASHRAE/mainly for travel of committee members

In danger of ASHRAE dropping – but with outside funding, may be able to maintain ASHRAE support

Work statement - to redirect to better meet FHWA, not ASHRAE standpoint

ASHRAE suggested co-sponsorship here, and FHWA, transit and others are definitely interested

Several potential topics – need champion to move ahead

- *(Mohammed Tabarra) criteria for stations in UK*

- *(need to work on international input - international members)*
- *Alternate fuels (ASHTA support)*

Web Site: (David Newman)

Liaison reports

TC 5.1 Ashesh

- no papers/seminars for Long Beach
- will have FEI (fan efficiency index) as topic in Chicago

TC 5.6 John Klote

- Research RTAR with a lot of interest; long atria – such as train terminal; co-sponsor with TC 5.9 – would this help move this along? Agreed by Ahmed to co-sponsor

NFPA 502 (Igor Maevski)

same track as 130; latest issue 2017 - new cycle starts in October – asking for comments/review online (next due in 2020)

PIARC Ahmed design fire report – started 7 years ago; issued yesterday!!! English/French - access online

APTA no report

Mining (Jane Miller) North American Mine Symposium was held June 19-21, 2017 in Golden, CO; next in Montreal May 2019

NFPA 88A (Troy Goldschmidt) added today

Upcoming conferences BHR Sept 13-15, 2017 Lyon, France open for registration now

Adjournment Kevin Chang adjourned the meeting at 5:00 pm; seminar followed – see below.

Next meeting scheduled for Chicago – Tuesday January 23, 2018.

❖ SEMINAR 5 – 6pm Ductless Car Park Ventilation: Global Trends and Design Practices

❖ Presented by Troy Goldschmidt

Submitted by Jane Miller, Vice Chair – TC 5.9