

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

**1791 Tullie Circle, N.E./Atlanta, GA 30329  
404-636-8400**

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

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

TC/TG/TRG NO. TC 9.9 DATE 01/10/2013

TC/TG/TRG TITLE Mission Critical Facilities, Technology Spaces and Electronic Equipment

DATE OF MEETING 01/10/2013 LOCATION Phone Conference

Voting MEMBERS	YEAR APPTD	PRESENT ABSENT	Voting MEMBERS	YEAR APPTD	PRESENT ABSENT
Robin Steinbrecher - P	10	P	Ecton English - U	10	P
Terry Rodgers - G	09	A	Don Beaty - G	10	A
Nick Gangemi - G	11	P	Greg Jeffers - G	12	P
Roger Schmidt - P	09	A	John Bean - P	10	P
Mukesh Khattar - U	09	A	Joseph Gangemi	10	P
David Quirk - U	09	P	Rhonda Johnson - P	10	P
Chris Kurkjian - G	11	P	Herb Villa - G	10	P
David Moss - P	11	P	Francis Mills - G	09	A
Corresponding Members		Not Recorded			

**DISTRIBUTION**

<i>All Members of TC/TG/TRG plus the following:</i>	
TAC Section Head:	Dr. Tom Lawrence
TAC Chair:	William F McQuade, PE, LEED AP
Manager Of Standards	Stephanie C Reiniche
Manager Of Research & Technical Services	Mike Vaughn

These minutes have been approved and are the official, approved record by this committee.

## **Opening Remarks**

The meeting was opened at 4:00 pm EDT. David Quirk introduced himself

## **Agenda:**

### **Programs Subcommittee – Nick Gangemi, Chair**

Dallas schedule –2 seminars, 1 technical paper session, 1 conference paper session. 6 seminars were submitted. All seminars occur after Sunday's meeting. Number of seminars has gone way up; review the scores to see why your seminar may have been rejected. Nick will distribute the details during the Sunday meeting for those who need it. ASHRAE seems to be getting many requests for sessions and is denying more than they have in the past. They provide ratings for abstracts. Review this to understand how you can get your submittals approved in the future.

Denver schedule – All submittal deadlines have past except for Seminars. Deadline for seminars is Feb 11<sup>th</sup>, 2013. Dates for submissions for conferences are posted on the TC 9.9 Website. Forewarn Nick about them so he can help you if you need it.

### **Research Subcommittee – Mike Patterson, Chair (Not present, Dave Q. summarized)**

- 1499-RP – ESD study – On track, within budget. Next update at the Sunday TC 9.9 Research meeting in Dallas, David Swenson (who was in San Antonio) will present. Human testing nearly complete. Cabling testing on-going. One ASHRAE Transaction paper already submitted. Final report possibly at the summer meeting. A final paper also to be submitted.
- DC energy modeling Work Statement for 90.4P - Tom Davidson led work statement efforts. He was not on the call to give a status. WS has approval for expediting from ASHRAE skipping the first phase.
- 1675-RTAR - CFD Experimental Benchmark Data for Data Center Numerical Modeling. Joint effort with TC4.10. Voted out of both TC's in November. RTAR submitted in December. Currently waiting on Dallas RAC meeting. Jim VanGilder and Mark Seymour are the leads
- NFPA FPRF research project –Project is second phase of research. High airflow environments and detection strategies. One part CFD, 1 part testing, using UL labs. Outcome used by NFPA 76, 76 and 72 for high airflow monitoring requirements.

### **Handbook Subcommittee – Robert McFarlane, Chair**

New outline developed and being worked on by task group. Forth draft review of introduction and outline complete. Ed Gatowski lending services for review. Robert is requesting specific expertise on certain chapters for writing. Requesting if they can obtain electronic parts of the books for input into the HB to not require rekeying of data. Can distribute first draft of introduction for review. Membership to contact David Quirk/ e-mail if interested in helping/writing/proofing, etc. Schedule- don't think will take a long time if electronic material is available from the books. David to determine publication deadlines from staff, one annual and 4 year print update.

## **Webmaster – Ecton English**

Website updates-1000 downloads of the Thermal Guidelines whitepaper since June meeting. Standard 90.1 downloaded about 700 times. 4700 unique visitors; 6500 visitors since June.

## **Standards Subcommittee - 90.1- Rick Pavlak, Formal Liaison**

- Standards Subcommittee - 90.1- Rick Pavlak, Formal Liaison
  - Definitions for data centers and computer rooms have gone out for advisory public review. Those can be commented on by the public. If you are interested, please do that. 90.1 does not have to take action on advisory comments.
  - A lot of pushback on addendums but there have been meetings to help with the wording to make them more acceptable to 90.1.
  - PUE addendum passed full committee. It is now headed to the board.
- LEED for Data Centers - Rick Pavlak
  - Version 4 – Rick does not have specifics. It is going out for final review in April. Voting would be on June 1<sup>st</sup>. Data centers are picked up in this standard.
- SPC127 – John Bean and Rick Pavlak
  - It appears that AHRI will use the latest revised version (2012) rather than the 2007 version. There is still a challenge that the DOE used the 2007 update.
  - 90.1-2013 will use 2010 version of SPC- 127.
  - John Bean added comment- 2012 version of SPC-127, AHRI will be moving forward

## **IT Subcommittee – Roger Schmidt, Chair (Dave Moss gave updates today)**

- Update of Contamination Book - PJ Singh/D. Moore in progress
- Update of Liquid Book – no status
- Update of Structural Book - B. Notohardjono – no status
- IT Thermal Controls WP – Robin – out for review by voting members
- Networking Whitepaper including rate of change - J. Fitch provided input. Near completion, several drafts, few weeks turning over to TC9.9. A 30 Minute presentation in Dallas is planned. Good information during Monday meeting.

## **Publications Subcommittee – Don Beaty, Chair, not on call today, summarized by Dave Quirk**

- Agreement with TGG to jointly publish a book on PUE. A task group established and is reviewing. Committee vote forthcoming. More to come in Dallas.
- Structural Book 2<sup>nd</sup> being updated. Committee vote forthcoming. Will see some more updates in Dallas. TC 9.9 are also doing some new books.

## **Membership Subcommittee – Jack Glass, Chair (present)**

- Membership updates Added 8 more provisional corresponding members. TC 9.9 will update the official roster, send to section Head, for official July 1 date. Jack and Dave to update. TC 9.9 needs to have members to update their BIO for this process. Will send out instruction for what people need to do.

## **Standard SPC-90.4P**

- Committee was formally approved and formed and has a chair. Had first call two days ago. Will be meeting on Saturday and Monday Morning in Dallas, and had to work around a lot of other meetings.
- Meetings are open to everyone. Standard formed in San Antonio. Intended to replace 90.1 for Data Centers. It is a SPC currently not under continuous maintenance. Goal is to get published a and not be a continuous standard. Chair is Ron Jarnigan and is requesting an aggressive schedule.

### **Open Discussions**

New Business –No other discussion. Reiterated will be sending out new agenda for Monday Dallas meeting. David Quirk adjourned meeting.

**The call concluded at 4:50 pm EDT. Members will be notified of the next Conference Call The call in information will be distributed**