

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

**1791 Tullie Circle, N.E./Atlanta, GA 30329  
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**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 8/04/2009

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

DATE OF MEETING 8/04/2009 LOCATION Phone Conference

Voting MEMBERS	YEAR APPT D	PRESENT ABSENT	Voting MEMBERS	YEAR APPTD	PRESENT ABSENT
David Moss	06	P	Chris Malone	06	A
Terry Rodgers	09	P	Tom Davidson	08	P
Richard Pavlak	08	P	Jack Glass	09	A
Roger Schmidt	09	A	Tim McCann	06	P
Mukesh Khattar	09	P	John Groenewold	06	A
David Quirk	09	A	Mike Patterson	06	P
Doug McLean	09	P	Francis Mills	09	Int'l
Fred Stack	08	P			
Corresponding Members		Not Recorded			

**DISTRIBUTION**

<i>All Members of TC/TG/TRG plus the following:</i>	
TAC Section Head: Van Baxter	
TAC Chair: Don Brundage	
Manager Of Standards	Stephanie C Reiniche
Manager Of Research & Technical Services	Mike Vaughn

These draft minutes have not been approved and are not the official, approved record until approved by this committee.

## Roster Voting Member Role Call

- Quorum present 8/5/1/1 (Present / Absent / Int'l / Chair)

## Contamination White Paper

- Purpose of discussion is to provide a forum for members to share information and opinions about the white paper with the voting members to assist their decision process for the vote to publish decision that will come via email ballot at the conclusion of the meeting.
- Introduced PJ as the Leader of the work group that will be writing the RTAR and subsequent work statement. Still open for more volunteers. Let me know if you are interested.
- PJ discussed the origins and main message within the proposed white paper.
  - Written and approved by 11 of 12 IT equipment OEM's. One no vote wanted the recommended restrictions to be tighter.
  - Table 4 on page 9 summarizes the recommendations of the paper.
  - Advises the paper is meant to explain the facts, concerns and remedies.
- Several members asked questions and stated opinions on the potential impact of the white paper. Most felt the paper exposes significant information that users and designers can use to make educated decisions about data center site selection.
  - There was some discussion on items not included in the paper such as
    - The actual sources of the contamination that one needs to be concerned with. - The paper does discuss some of the offending gasses, but wanted to stay with the facts that the concern is corrosion on copper and silver. Simple tests are defined to pre-test the air to determine if the combination of contaminants at any site could be a problem. The authors did not want to generalize or malign any industry or geography.
    - Time of year to do the test, or impact of wind direction. - Again the focus was on testing. This can also be done on a continuous basis by monitors that are available from several manufactures.
    - Specific failure numbers. - The paper discusses significant increases in the failure rate documented in six previous published works, but does not provide specifics because of the confidential nature of that information.
- Publication plans of the document was discussed
  - Will be posted for free on the TC 9.9 web site as well as the ASHRAE bookstore web site as was done with the last Special Publication Bulletin
  - The Bookstore will provide a free copy with each order for the publication *Contamination Considerations for Datacom Equipment Centers (2009)*
  - We will ask the ASHRAE Journal and Insite to publish an abstract of the paper advising its availability.
  - ASHRAE may issue a press release advising the availability of the main book and free White Paper.

## Programs Subcommittee report by Vali Sorel

- Program for Orlando
  - Proposals were made for one Forum and two Seminars.
    - The Forum will be led by Vali and is on LEED Requirements for Data Centers - Are special point guidelines needed
    - Mike Paterson will lead a Seminar that contains four presentations the expose the details of the demonstration recently completed extracting data direct from Servers to determine the CFM requirements of the CRAC units – and control them.
    - Bob Sullivan will lead a Seminar regarding how to utilize the entire server environmental operating range.
  - There are three transaction sections also submitted
    - T Rodgers – Monitoring of Data Centers
    - J Prisco - Contamination
    - E English – High Density Updates
- Program for Albuquerque
  - One Transaction Section with three papers has been submitted by M Scofield. With a theme of Evaporative Cooling of Data Centers
  - We do not have any Abstracts for conference papers submitted. These are due by Sept 25.
  - No Forum is planned
  - No Seminars have been submitted yet, but there is plenty of time.

- The Conference Paper is a new type of paper. Details are:

- The abstract undergoes review by the TC for acceptance / rejection
- Papers due 3 months after notification of acceptance.
- Paper undergoes a single-blind review by two reviewers minimum
- Maximum of 8 single spaced pages. Paper is submitted in “final” form using a template

## Handbook subcommittee report

- Not covered. My mistake Doug was on the line and had information to share. We will cover it in the next phone conference.

## ASHRAE 90.1 Mechanical Sub-committee

- Richard Pavlak has been formally named as the liaison to the 90.1 MSC
- The Public review for what was shared in Louisville has not yet been posted, but it will happen this month. I will send a notification when posted.

## **SPC 127 Subcommittee**

- Not covered – but here is the update
- The TC 9.9 vote was unanimous for the proposed scope and committee members.
- The proposal has been sent to ASHRAE. I will advise when we hear from them

## **Research subcommittee report By Robin Steinbrecher**

- Due to other commitments by Mark Hydeman, and the deadline of August 15 to submit the new work statement to ASHRAE (and other documents) the lead on finalizing the work statement has been shifted to John Haas.
- The remaining changes are felt to be minor
- The plan is to submit the final document to the voting members at the end of this week. We strongly want to have unanimous participation in the vote.

## **DOE Save Energy Now Data Center Awareness Training Program By Bill Tschudi**

- The first course is being delivered this month for Gov Energy. Since the presentation material is not yet finalized the instructors (Don Beaty and Roger Schmidt) will be using the material from the NYSERTA course.
- There will be a separate call very soon of the persons actively involved with the development of the materials to try and finalize some of the material
- We still need a program for how to select and certify the trainers. We do have a nice list of volunteers.
- There is a growing list of potential hosts for the event. The DOE will select a subcontractor in October to select, approve, guide the various hosts on their responsibilities

The next phone meetings will be

September 22 @ 4:00 PM EDT

November 3 @ 4:00 PM EST

December 15 @ 4:00 PM EST