ASHRAE TC 9.9
Minutes for 4/7/2009 Phone Conference
4:00 PM EDT to 5:00 PM

1. **3/11 Minutes**
   a. Minutes are posted at http://tc99.ashraetcs.org The motion was received to accept the minutes from 3/11 as written.

2. **Program for Louisville and Orlando** – The table below shows the current schedule corrected from the 3/11 meeting

Louisville	Transactions	Free Cooling Opportunities for Data Centers	Terry Rodgers	Bill Tschudi, Steve Greenberg, Amit Khanna Jeff Stein Robert Sullivan	High Performance Computing with High Efficiency Waterside Economizing in Data Centers: Design and Control Considerations Introducing Using the Heat Wheel to Cool the Computer Room
Louisville	Transactions	Cooling of Telecom Centers	Magnus Herrlin	David Quirk Herman Chu	Convergence of Telecommunications & Data Centers Hurdles in Deploying Liquid Cooling in NEBS Environments
Louisville	Seminars	DOE Certified Energy Practitioner (CEP) Program for Data Centers	Jack Glass	Bill Tschudi Paul Scheihing (DOE) Magnus Herrlin	This seminar will be presented as part of the TC 9.9 main meeting Monday PM
Orlando	Transactions	Recent Advances in Monitoring of Data Center Energy Efficiency	Terry Rodgers		Data Center Efficiency Metrics Evaluation Data Centers' Energy Auditing and Benchmarking - Progress Update Data Centers' Energy Numeric Analysis of Telco & Data Center Cooling & Humidification Options Design Consideration of Airside and Waterside Economizer for Data Center Project
Orlando	Transactions	High Density Cooling Issues Update	Ecton English		Top-Level Dashboard for Data Center Monitoring TBA

					TBA
Orlando	Transactions	Contamination Issues in Data Centers	Joe Prisco		Contamination in the Data Center: the Impact of CRAC Belt Dust What's Creeping Around in Your Data Center
Orlando	Seminar		Bob Sullivan		

3. RTAR Status - Robin Steinbrecher

Our RTAR on the impact of low humidity within the Data Center is still approved and active. Answers to the questions poised to our work statement are being collected by Mark Hydemann. The final corrections will have to be voted approved by the TC 9.9 committee before May 15th to be considered. We must have more affirmative votes than just a quorum to be accepted.

The Work statement for the RTAR we co-sponsored on Simplifying the Rack boundary condition for CFD modeling has been approved

4. Recommendation for 90.1 changes – Status – Rick Pavlak

Rick Pavlak stated the subcommittee had a productive call last Thursday and another call would be scheduled this week. We have been invited to present the TC 9.9 recommendations at the 90.1 meeting in Atlanta on Thursday April 23. The subcommittee is attempting to have their recommendation finalized before the meeting, but it is doubtful there will be time for the voting members to vote it our prior to the meeting in Atlanta. An attempt will be made, but at a minimum the draft document will be presented. Several members are currently planning on attending the meeting in Atlanta. They include John Bean, David Quirk, Greg Jeffers, Jeff Stein, Mark Hydeman and Fred Stack.

5. DOE / ASHRAE Seminar Program – Bill Tschudi

Significant progress has been made on the training material for the DOE seminar program. The first usage of the material is planned for a Saturday Tutorial in Louisville. To make this deadline the subcommittee plans to release the presentation material for comments before April 24. The expectations are the input and corrections can be made by May 29 giving the voting members time to review and approve the content. If necessary the approval will be on a section by section basis to insure we have some approved content in time for the June Tutorial. There has been interest expressed by several organizations to be hosts for this DOE sponsored training. Two were discussed -- Gov't Energy in Providence in August and Labs 21 in Portland, OR in September. It was pointed out there are two big steps which need to start soon:

- The defining of the process that will be used to identify and certify the required trainers, and

- The process that will be used to identify and qualify potential hosts

6. BICSI – Rhonda Johnson

BICSI is publishing a data center standard. They have requested a review by ASHRAE TC 9.9 on the mechanical chapter of this document. Their dead line for final comments is April 27. I stated the committee can not provide a formal approval in the time allowed, but I approved some members providing guidance independently. Rhonda agreed to consolidate all responses within the BICSI required documentation approach. The following members agreed to perform a review – David Quirk, john Bean, Jeff Trowler, Greg Jeffers,Rick Pavlak, and Rhonda Johnson.

7. Update on Books

a. Thermal Guidelines, Design Considerations & Best Practices for Energy Efficiency are all out to the printer and should be available for purchase in the ASHRAE Bookstore.
b. Contamination – all edition efforts are complete and has been submitted to the printer. It is in que for printing. It will be printed prior to the Louisville meeting
c. Measurements – Tahir Cader -- Significant progress is being made. All chapters except one are at 90% complete. It is expected to be makde available to the voting members by Mid May so they can read and be prepared to vote at the meeting in Louisville.
d. Green Tips – No update at this time
e. Economizers—No update. The last update was it was 70 – 70% complete. More details soon

8. LEED Rating for Data Centers

The USGBC has formed a committee to review the documents submitted by LBNL that was based on input from many sources including TC 9.9 and TGG. This document was targeted for new construction. LBNL is seeking funding to write a similar document for existing buildings. A concern was raised that the efforts on updating the 90.1 document were not in parallel with either of these efforts. This was acknowledged and it was stated there would be significant time to address these differences during the review process.

The next conference calls are scheduled for 4:00 PM EDT on

- May 12
- June 9