

**1. Chicago Minutes & Roster update**

- a. Asked members to review Chicago minutes that are posted at [tc99.ashraetcs.org](http://tc99.ashraetcs.org) for errors or omissions and advise via email
- b. Roster Changes
  - i. Magnus Herrlin resigned from Vice Chair for personal commitment reasons – Thanks Magnus for your efforts and continued involvement with TC9.9
  - ii. Now Vice Chair – Jack Glass
  - iii. Interested in being Secretary? Contact F Stack
  - iv. Voting Members resignations New total is 14. 5 others terms expire in July. 6 have been nominated to ASHRAE for voting member status in July.

2. **Program for Louisville and Orlando** – The table below shows the current schedule per ASHRAE, but there is confusion regarding this as it does not exactly reflect our notes and desires from Chicago. We will get clarification and report back.

3.

Louisville	Transactions	Free Cooling Opportunities for Data Centers	Terry Rodgers	Bill Tschudi, Steve Greenberg, Amit Khanna  Brue Hellmer  Jeff Stein  Robert Sullivan	High Performance Computing with High Efficiency Introducing Using the Heat Wheel to Cool the Computer Room Waterside Economizing in Data Centers: Design and Control Considerations
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	Free Cooling Opportunities for Data Centers	Terry Rodgers	Bill Tschudi  Vali Sorell  Ray Pfeifer  Richard Jones	Lessons from the field: DOE's benchmarking efforts for data centers An end user's perspective how to use real time benchmarking to improve operation LEEDing the pack, measurement requirements in the proposed LEED criteria for data centers Redefining performance, new data center metrics in development at Green Grid

Orlando	Transactions	Free Cooling Opportunities for Data Centers	Terry Rodgers	TBD	Data Center Efficiency Metrics Evaluation Data Centers' Energy Auditing and Benchmarking - Progress Update Climate Impact on Data Center Energy Efficiency
Orlando	Transactions	High Density Cooling Issues Update	Ecton English	TBD	

### 3. RTAR Status

Our RTAR is still approved and active, but our work statement has been rejected. We have a list of items that need to be addressed, some simple clerical issues, but several of much greater sustenance. These items were discussed and Robin Steinbrecher indicated he had Mark were addressing them and he did not see any major difficulties. One of the items was for us to reference the “abundant research that the California Energy Commission has done in this area to help better identify gaps”. Several on the call requested copies or direction where to find the CEC work referenced. This information was emailed to those requesting it after the conference call.

### 4. Recommendation for 90.1 changes – Status

Rick Pavlak stated the minutes of his subcommittee were sent to the subcommittee for review and would be shared with the voting members next week after all corrections are made. His team is committed to developing a draft proposal by our next call April 7 that the voting members will be able to review and comment on. Rick also volunteered to become a permanent liaison member with the 90.1 committee, becoming more active in their meetings in addition to the TC 9.9 activities.

### 5. DOE / ASHRAE Seminar Program

Significant progress has been made on the training material for the DOE seminar program. Some clarification was made by Bill Tschudi and Jack Glass regarding the program and discussions with the DOE. The main clarification was that the seminar is primarily targeted toward the user community, but it is expected many consulting engineers will also attend. The full outline of the course identifying the sections, their authors and the main themes and source data for those sections is being posed on the [www.TC99.gov](http://www.TC99.gov) site. 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. 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 this month

- b. Contamination – this book is in the final steps of editing (adding both metric and imperial units of measure) before it is submitted to the printer. It will be printed prior to the Louisville meeting
- c. Measurements – A fair amount of adjustment and editing is underway after feedback from the draft version sent out for comments in January. Tahir is working with his team
  - i. Sent ASHRAE’s new proposed layout for the book to the book team two weeks ago.
  - ii. Have our first scheduled call with the team this Fri, March 13. The team is now the consolidated team including ASHRAE TC9.9 and TGG. Calls will be weekly on Fridays, from 10 – 11 am PST until further notice.
  - iii. The purpose of the calls is to drive to the pre-final version of the book. The hope is to have this version of the book ready within 4 – 6 weeks.
- d. Green Tips – No update at this time
- e. Economizers—No update. The last update was it was 70 – 70% complete. More details soon

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

- April 7
- May 12
- June 9