



## Technical Committee 9.07 Educational Facility Air-Conditioning Applications

### Meeting Minutes

Annual Meeting, Chicago, IL

Sunday, January 22, 2012 1:00 – 3:00 p , Montrose 5 (7)

**TC 9.07 Chair Itzhak Maor called the meeting to order at 1:00 PM**

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### AGENDA

**Roll Call** - Itzhak Maor reviewed the roll and it was determined (5) voting members present of a total of (9), quorum was determine. Sign in sheet was passed around, and requested corrections. (Special note that (2) additional voting members arrived later during the meeting).

**Introduction of Members and Guest** – all attendees introduced themselves in name, and indicated their professional affiliation and status relative to committee affiliation. (12) members and guests were recognized. Post meeting start, (3) additional members and guest arrive with names recorded on the sign in sheet, constituting a total of (15) members and guest.

**Agenda Review** – Agenda items was emailed to members prior to meeting and made available to attendees

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### OLD BUSINESS

**Montreal Meeting Recap** - Melvin Glass suggested the prior meeting minutes be utilized for review of the Montreal meeting.

**Montreal Annual Meeting Minutes** - Chair Maor provided a couple of minutes for the group to review the meeting minutes, (6) hard copies was distributed to the group, electronic copies email prior to the meeting. Hugh McMillan motion to approve the minutes as written, Melvin Glass second, motion approved unanimously.

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### LIAISON REPORTS

**TAC Section 9 Report: (Lawrence)** - No report

**Environmental Health: (Mills)** - No report

**Handbook: (Mills)** - No report. It was noted work on the Handbook will be required soon, this to be a planning item at the San Antonio meeting.

**Other TC's:**

**2.1 (Westbrook)** - No report

**9.6 (Cox)** - No report

**SSPC 90.1 (Maor)** - Chair Maor provided a review of activities with SSPC 90.1 and the CMP's moving forward to meet the work plan goal of 50% reduction of energy goal relative to 90.1-2004 version, for the 2013 version/publication. Moar also shared the PNNL progress indicators report provided at Chicago meeting. David Handwork provided a brief update on MSC (Mechanical Sub-Committee)



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**SUBCOMMITTEE REPORTS AND BUSINESS ACTIVITIES**

**Program Subcommittee Report (Glass)**

**Chicago program review** - No committee activities for the Chicago meeting.

**Future program discussions for San Antonio and Dallas**

Melvin Glass suggested a forum on ADEG 50% for K-12 for San Antonio meeting, seminar or forum, Melvin shared the San Antonio (SA) seminar tracts and requested the committee's input.

Richard Eiden suggested the Staten Island K-12 school (opening date 2015) - a high performance school for seminar.

Melvin suggested with the timing of the opening of this school being 2015, it may be more appropriate to consider this for later ASHRAE meetings, such as Denver, NY, or Seattle. But, a good tract could be the energy modeling and design considerations for this school.

Melvin indicated the conference paper deadline has passed for SA, but we have time for a submittal on seminar. Dr. Dejan Mumovic has been in contact with Melvin with some suggestions and ideas.

Raj Setty provided a suggestion of a project his firm has data on how the operations is affected by the students, interaction with energy display, and the modeling baseline to the actual usage. Using CBECS data as a baseline, but is performing much better than on Washington DC schools,

Melvin suggested at least three tracts, and Richard's suggestion and Raj's could work, Filza Walters mentioned the Boling Green, KY school

Hugh noted a Forum is a solicitation of feedback, and therefore a seminar would be more appropriate with Shanti Pless's presentation on the ADEG.

Sarah Matson - outlined the conference program organization to be flexible for local participants to attend and not miss work. For SA, the mini-conference will be on integrated BAS. Sarah solicited submittals for programs for integrated controls seminars. Dallas mini-seminar - transportation and industrial ventilation. Denver mini-seminar - integrated project delivery. Submitting for a mini-conference is the same/similar process as the regular conference seminars. Raj indicated he may have a project for integrated BAS.

Melvin indicated the SA abstracts for seminars are due in March, he will submit at least (2) seminars for SA - ADEG and Applied ADEG for K-12

Raj asked if Melvin will chair. Melvin agreed to lead on ADEG, but needs other person to chair the seminar for the other submission. Melvin asked Raj, Raj asked Sarah what all was involved and afterward Raj tentatively agreed help out.

Filza asked what the theme is for SA. The theme is “

Jason Atkisson asked which tracts the seminars are to fall under - After discussion - Tract 4 Building Modeling Applications - was selected as the primary tract, Tract 2 on integrated controls as the second tract.



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Melvin discussed with Frank Mills on possible seminar submissions, particularly on natural ventilation. Frank indicated he will see if can with Dejan provide (3) speakers and seminar submittals.

It was questioned if the committee provide a submittal for a ADEG 50% comparison. If submitted, Tract 2 Fundamentals, or Tract 3 Integrated Energy Systems. Jason suggested and committee consensus was Tract 2 would be best.

\* Summarized Titles

\* Modeling for Net Zero Energy Schools

\* "Natural Ventilation for Schools"

\* ADEG 50% for K-12, Practical Results in Application, Two Major School Systems Perspective

Raj, Richard, and Frank will get back with Melvin on confirmed titles and required information for the February deadlines.

At Dallas, maybe the applications of ADEG would be more appropriate for Tract 3.

\* Melvin indicated July 1 steps up a chair

**Membership Subcommittee Report (Maor on behalf of Lu)**

Melvin Glass will move up to Chair position on July 1, 2012. The need for a Vice Chair was noted, but no volunteers or nominations were tabled. Richard Eiden volunteered for Handbook.

Jason Atkisson will continue as ALI, Membership will same, Maor is stepping down as voting member.

Itzhak Maor reviewed the membership changes and discussion of numbers and needs for number of membership, especially voting members.

**Handbook Subcommittee Report (Maor)**

No changes on the Handbook (no update). Suggested SA meeting bring up review/comments of the handbook chapter.

Now is the time to look at the handbook where items that needs to be in the handbook and research is needed, the RTAR's for important topics should be submitted as soon as possible (before SA) so that research can feed into the HB chapter

- Idea - infiltration and testing, Cx for envelope, and how important that is for schools.
- STEM program test scores on high performance schools, Filza interactive involvement with built environment for high performance buildings produced more
- Lower humidity studies - concurrent to research topic in Canadian schools.

Frank Mills shared a schedule on the HB schedule and benchmark dates, summer 2014 is a critical completion deadline. Supplemental interactive electronic files are due before this time. Raj suggested Apps for Apple and Android devices, should be part the HB.

Possible RTAR would be Apps for TC 9.7.



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**Research Subcommittee Report (Cox)**

**Research and Technical Activities report review**

Bob Cox talked to committee about providing assistance to 9.7 on RTARs that needs to provide exposure of the committee activities and needs for research

Low humidity setpoints is a critical issue in all aspects of ASHRAE purview, hospitals, offices, schools, plane cabins, etc.

Research findings on low humidity in these other areas will not have any transcendental applicability for dorms, k-5, k-12, college buildings. Therefore the research topic should be honed to the specific are the committee would like to see, and take the lead on the topic on possible K-5 schools. Bob suggested to contact TC 2.1 for collaboration and understanding 9.7 desires to take the lead.

RTARs should be very specific in order to be considered.

Bob shared we should be very careful the topic is specific, but take out extraneous variables, such as absenteeism. How do you isolate multiple schools to measure the affect of humidity? Bob's opinion is in order to isolate the variables, it may require animal research as a preliminary study.

**Current RTAR's and Research project proposals**

Itzhak provided an update on the low humidity RTAR is on hold, Bob Cox to make an update

Made a motion for 9.7 to take lead on low humidity research (un-recorded on persons making motion and second) - passed unanimously.

**NEW BUSINESS**

**Web site , Electronic Communications Update and "Linked In" web site (Bender)**

Mark Bender provided the update on TC website and discussed the current Google groups, or linked in groups.

**Advanced Energy Design Guide for K-12 School Buildings (50% Savings) (Murphy)**

John Murphy came in and reported and reviewed the current status of K-12 ADEG, and indicated preliminary feedback and use was very good.

Raj asked if there's a cycle, John said no. But Frank thought there was a 4-year cycle, and the next threshold has not been defined yet, possibly 70% ADEG. Frank is on publications committee, so it is reviewed on a period on approximately 4-years. Frank indicated 360,000 have been download. Filza asked if APPA and other organizations have partnered or endorsed the ADEG. It was unknown other than the national K-12 superintendents group have promoted.

Raj noted Maryland public schools have adopted IGCC as a basis of design.



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**Open Discussion on Committee Activities ( All)**

Jason motion to adjourn, Handwork second - motion passes.

Meeting was adjourned at 2:58 PM.

**END OF MINUTES**