



® ASHRAE

Meeting Minutes

TC 5.5 Air-to-Air Energy Recovery

Greenway C, Hyatt Hotel, Minneapolis
3:30 p.m., 27 June 2000

1. Chairman Dilip Vyavaharkar opened the meeting with table introductions.
2. *Bede Wellford moved, Prakash Damshala seconded, approval of the minutes for the Dallas meeting.*
3. Subcommittee Reports
 - a. Membership - Bert Phillips
 - Members present - Dilip Vyavaharkar (Chair), Bede Wellford (Vice Chair), Peter Grinbergs, Kirk Mescher, Bob Besant, Prakash Damshala, Hoy Bohanon, Gursaran Mathur, Bert Phillips,
 - Members absent - John McNab Dave Shipley, Katherine Hammack
 - The current membership is shown on the membership listing posted on-line. Shipley, Mescher, and Hammack cycle off as voting members and Bohanan, Horak, Wawryk and Smith cycle on as voting members.
 - b. Research - Peter Grinbergs
 - The Research Plan is currently available on the website and to date nothing has been submitted.
 - RTARs (Research Topic Acceptance Requests) are due by Aug 1 for each project proposal which will be reviewed by October. Then work statements can be submitted thereafter. Only 3 RTARs can be sent in at a time. The following proposals were discussed and approved by the members:
 1. Air-to-Air Energy Recovery System Design Guidelines and Short Courses. (**Action Item: Bert Phillips**).
 2. Energy efficient methodologies to provide ventilation for a healthy indoor environment. (**Action Item: Peter Grinbergs**).
 3. Effect of Tracer Gas testing on Semi-permeable Membranes. (**Action Item: Peter Grinbergs**).
 - c. Program - Hoy Bohanon
 - Hoy went over a list of programs for future dates and *the list was approved by Bede Wellford and seconded by Bert Phillips.*
 - Programs at Atlanta 2001

1. Energy Impacts of Mechanical Ventilation - Symposium Chair Peter Grinberg (**Action Item**)
 2. Energy Recovery Ventilation - Why or why not? - Forum Chair Bede Wellford (**Action Item**)
 3. Meeting the Requirements of Standard 90.1 with ERV's - Seminar Chair Bert Phillips (**Action Item**)
- Programs at Cincinnati 2001
 1. Staying in the comfort zone.... Humidity control with ERV's - Symposium Chair Kirk Mescher
 2. Advances in ERV technology - Seminar Chair Dilip Vyavaharkar
 3. What support is needed for more run around systems - Forum no chair selected or recorded
 - Topics for Atlantic City 2001
 1. Casino Ventilation... keeping gamblers comfortable
 2. Topic on Desiccants.. joint with TC 3.5
 3. What is the difference in enthalpy and desiccant wheels
- d. Standards - Kirk Mescher
- Kirk reported that the Standard 84 Committee met and the outline was reviewed. There were modifications made to the wording and work needs to be done on the Appendices. Expectations are that the public review will go out after Atlanta 2001. The scope was clarified to state that the standard is for components or components in systems.
- e. Handbook - Larry Hoagland
- The 2000 handbook is done and the committee acknowledged Gerry Martin for a job well done
 - The next handbook has to be completed in 4 years and since Larry will not be at all the meetings there was a request for a co-chair. Gursaran D. Mathur was nominated. *Motion - Bede Wellford, Second Peter Grinberg - carried.*
 - CDs will be sent instead of books this year. The information will all be in the form of PDF's (portable document files)
 - Larry made a call out to all membership to provide feedback for the next handbook
- f. Journal and Insights - Prakash Damshala
- Prakash reported that he was working on getting articles on energy recovery topics into Journal and Insights.
 - Compliments to Bob Besant on an excellent article he wrote in the May issue of the ASHRAE Journal
 - Prakash currently has his students working on run around pipes and wheels, and de-icing of plates with hopes that this research will provide potential articles for the Journal
 - The September 2001 issue of the Journal is focusing on "Methods to introducing outside air" If anyone wants to submit an article, it must be done by the end of this year (Dec 00)

4. Liaison Reports

a. Standard 62.1 - Bede Wellford

- The chair for SSPC62.1, Andrew Persily, was present at the meeting and provided members with a good overview of the progress of Standard 62
- TC - Review - Andrew stated that the SSPC provides TC's with a preview of the proposed addendum, before it goes out for public review. Corresponding members who want TC Review addenda, please contact Bede Wellford to place your name on the email list
- There is currently addenda out for public review that is due August 7, 2000 dealing with
 - Air distribution and duct locations
 - Materials in airstream in ventilation systems
 - Building construction and building envelopes
- There will be more addenda coming out for public review in the future that the SPLS has approved including:
 - 62o - guidance on smoking
 - 62t - condensate management
 - 62u - control issues
 - 62y - defines different classes of air
- The SSPC has recommended 3 additions which must go to standards including:
 - Intake locations
 - Assessment of outdoor air quality
 - Requirement for cleaning of ozone
- There are new OM's (Organization Members) on SSPC 62.1 and three more are joining the committee in the fall
- Addendum N - members were given a copy of a letter written by Dilip on behalf of TC 5.5 with concerns on Addendum N. Andy Persily wanted an electronic copy (**Action Item, Dikip Vyavaharkar**). Andy will be putting together the rationale behind Addendum N, which may lead to proposed changes, dependent on the review.
- Standard 62-99 has been taken to ANSI for approval. One addendum has been appealed; however, it is expected to be approved in the future.

b. Standard 62.2 - Peter Grinbergs

- NAHB (National Association of Home Builders) had issues about the requirements of CO monitors in rooms and also the sound ratings on exhaust fans. These concerns are being addressed.

c. TC 3.5 Desiccant and Sorption Technology

- ASHRAE Standards has approved the development of a new standard for "Method of Test for Rating Packaged, Air to Air, Thermally-Regenerated, Desiccant Based Dehumidifier Systems." A request was made for TC 5.5 members to get involved if possible.

- d. ARI Standard 1060-2000
 - ARI Standard 1060-2000 is approved and available on the website.
 - Qualifications tests for manufacturers will start in October 2000 and once the certification program starts, the directory of Certified Manufacturers will be found on ARI's website.
- e. ASHRAE Standard 90.1-1999
 - This latest version states that any system with an airflow of 5000 cfm or higher with a minimum of 70% outside air, shall have a total effectiveness of at least 50%
 - Cannot use a simple systems within the standard if the outside air volume is over 3000 cfm, unless you are using energy recovery systems.
 - Pursue the development of a short course for energy recovery technology and Standard 90.1 - tying them together (**Action Item, Davor Novosel**).

5. New Business

- o Don Shirey presented two new software programs developed for the EPA (Environmental Protection Agency) to be utilized as assessment tools for new schools.
 - *ERV Financial Assessment Software Tools (EFAST)*
 - This program was developed by Enermodal Engineering and is designed to show the economics of utilizing energy recovery for school applications
 - *Indoor Humidity Assessment Tool (IHAT)*
 - This program was developed by the Florida Solar Energy Centre and is designed to model indoor humidity levels at various full and part load conditions with and without the use of energy recovery systems
 - Don stated that BETA versions will be couriered out to approximately 50 individuals for feedback during the month of July. All interested members were to contact Dilip Vyavaharkar to request a BETA copy. It is expected that the software programs will be launched all on one CD in the first quarter of 2001. (**Action Item, feedback on Beta versions - Members**).
- o A TC member mentioned that he had seen a new book in the ASHRAE Bookstore that had a chapter in it on air to air energy recovery. He cited several lines from the book describing the energy recovery technologies; and expressed concern that it did not accurately reflect the latest state of the art. Several members of the committee agreed with his comments. The author happened to be attending the TC meeting, and a lengthy discussion of the contents took place. Several members expressed an interest in reviewing this section in the future if the book is republished.
- o Gerry Martin offered members a tour of his test facility at Xetex after the meeting.

6. Adjournment