

**TC 8.8 Meeting Minutes**  
**Refrigeration System Controls and Accessories**  
**Chicago, Illinois; Tuesday, January 28, 2003: 1:00 – 3:30 pm**  
**Palmer House Hilton**

**I. WELCOME AND INTRODUCTIONS**

The meeting was called to order by Chairman Robert Bittle. A quorum was present. Of the 11 voting members, 8 were present. The sign-in sheet from the meeting is attached as a PDF. Members and guests were welcomed to the meeting.

**II. APPROVAL OF MINUTES FROM THE HONOLULU AND ATLANTIC CITY MEETINGS**

Minutes from Honolulu were approved on voice vote.

Atlantic City minutes were approved on voice vote by all voting members present.

**III. REPORT FROM SECTION 8 T.C. CHAIRMAN'S MEETING**

ASHRAE has condensed and re-arranged its technical committees. TC 8.8 will become TC 8.11 in July of 2003.

**IV. SUB-COMMITTEES**

**A. Handbook – Dennis Littwin (Chapter 45)**

Handbook has been published. Systems handbook could use improvement. Bill Wolfe challenged the handbook committee to really improve the next volume of the handbook. He wants every TC member to review the handbook and give feedback. The small committee when then condense and process the recommendations.

Handbook author and revisor guide has been updated. Each member of TC 8.8 was asked to review Chapter 45 and offer their comments. This is Chapter 45 in the 2002 refrigeration volume of the handbook. Littwin asked for comments by the end of April 2003. He will circulate and email reminder.

Cost cutters wanted to eliminate free copies to the compilers of the handbook, but this was voted down by the chairman's meeting participants.

**B. Membership – Dave Dorste**

There will only be 4 voting members after the June meeting. We need more voting members and balance in the committee. Bob Bittle will no longer be chair after the June meeting in Kansas City. A voting member must wait 1 year before becoming a voting member again.

Do you have to reside on the committee as a CM before you vote? NO, was the consensus of the committee. Noble, Nungesser, Malone, and Cummings will be added as voting members. An attempt will be made to add new members every year to maintain continuity on the committee.

Payne will assume the duties of Webmaster. Bittle will be the ASHRAE Learning Institute liason. Littwin will remain the handbook chair. Noble has agreed to be chair. Payne will remain as secretary. Zupp will remain the vice chair. Bob Jones will become research subcommittee chair. Bittle will remain as programs subcommittee chair. International members are needed. Littwin will investigate one of his Japanese associates as an international member. Dorste will continue to search for more international members. Wolf will remain research chair.

**C. Programs – Robert Bittle**

There were some great forums. Forum 5 and 8 on the 4-way reversing valves (SPC 153P) offered great presentations and discussions of the issues pertinent to HVAC&R for these valves.

**D. Research – Duane Wolf**

TRP 948 was passed off by mail ballot. The project was accepted and is considered complete. They are still working on a technical paper.

Forum 5 and 8 emphasized the need for research on the 4-way reversing valves. Several motions were called for: (1) 4-way valves as the number one research project; (2) Orifice tubes would become 2<sup>nd</sup>; and (3) adiabatic capillary tubes with zeotropic mixtures would be 3<sup>rd</sup>.

We need to generate an RTAR for these projects by August 1. Then we may draft a work statement after the RTAR is accepted. We may also work on the work statement now. The 4-way valve RTAR should be voted on in Kansas City. The valve project would have implications for the handbook and is therefore a good candidate for being accepted as a project. We want to deal with seat leakage, pressure drop, and heat transfer within the 4-way valve types. Testing the valves with air or refrigerant should be investigated.

Discussion continued between members on the MOT for these valves. There is no current rating procedure for these 4-way valves. The merits of air versus refrigerant were discussed. All agree that more information is needed. The best ways to characterize the valve were discussed; system testing versus testing the individual valves.

Motion for making 4-way valve our first priority was made: Unanimously approved.

Motion was made to proceed with 4-way valve RTAR: Unanimous approval.

Wolf will work on the RTAR. Once the RTAR is approved the research committee will consider the work statement. If the work statement were accepted then the money would be allocated and the project would go out for bids. Sunday in Kansas City will be the research subcommittee meeting.

#### **E. Standards – Dave Dorste (not present, Bittle reporting)**

Standard 17-1998: Method of testing capacity of thermostatic refrigerant expansion valves (ANSI approved) still needs our review. The current standard was approved by letter ballot. The foreword needs our approval. Dorste read both versions of the foreword; both old and the proposed foreword. The ASHRAE standards committee wants all standards to be reaffirmed only once and then revised or removed as a standard. Several references were removed to make the new foreword more generic.

Dorste made a motion to accept the foreword, 2<sup>nd</sup> by Littwin: Approved unanimously by the voting members present.

Do we need to review and comment on ARI Standard 750 which is the rating procedure for thermostatic expansion valves? Dorste will examine this question and present his findings in Kansas City.

SPC 153P Method of testing for capacity rating of four way reversing valves: The committee has decided to move forward with the current version of the standard with a refrigerant as the working fluid for the standard. We will then come back later to address the other issues examined by our research project(s) on the 4-way valves. We want to keep this standard moving and get it to ASHRAE members.

SPC 158 : D. Littwin chairs this committee which concerns Std 158.1 and 158.2. Std 158.1 concerns rating of solenoid valves, 158.2 for pressure regulating valves. MOT for solenoid valves was submitted in January for

public review. It was approved for public review at this meeting and will go out in February. 158.2 is a similar standard, and they made progress at the meeting in Chicago. They have two new members on the SPC. 158.2 has a new title, purpose and scope that was submitted during the Chicago meeting.

**V. OLD OR NEW BUSINESS**

SPC 158.1, solenoid valve standard. Liquid valves are tested with water, and gas valves are tested with air. No refrigerants are allowed to be part of the testing in the current standard. Is this good for ASHRAE to not test with a refrigerant? Discussion continued on this subject. Dorste noted that the intent was to eliminate testing with many different types of refrigerants by using only air or water and then correlating those results to refrigerants. Herrick labs' correlations were used in the standard, and Dorste says those pressure drops seem to be well matched to refrigerant results. Marx did not want individuals who wanted to test with refrigerant to be rejected by the ASHRAE Std 158.1. The review by the public should provide an avenue to address these concerns. Anyone can voice their concerns during the public review.

**VI. OPEN DISCUSSION**

No discussion was made.

**VII. THE COMMITTEE ADJOURNED**

Motion for adjournment was made, seconded, and approved by all.

Attachments:

Sign in Sheet