

**AMERICAN SOCIETY OF HEATING, REFRIGERATING AND
AIR-CONDITIONING ENGINEERS
1791 Tullie Circle, N.E.
Atlanta, GA 30329**

**ASHRAE Summer Meeting
Salt Lake City, Utah
TC 5.2 Duct Design**

**Tuesday, June 24, 2008
Location: Salt Palace Convention Center
Rm. # 151 G, Lower Level
Time: 3:30 – 6:00 pm**

Agenda

- 1. Call to Order**
- 2. Introduction/Attendance**
 - a. Voting Members
 - b. Corresponding Members
 - c. Visitors
- 3. Approval of the New York City Meeting Minutes**
- 4. Section Head, Chair Reports**
- 5. Membership (Steve Idem, Chair):**
 - a. Roster for 2008-2009 (Effective July 1, 2008)
 - 1) Voting Members to Add: NYC Minutes – Bass Abushakra, Herman Behls, William Elosch
 - 2) Corresponding Members to Add: NYC Minutes: Marcus Bianchi, Wesley Davis, Michael Resetar, William Stout, Chris Van Rite,
 - b. Who from the CM would like to become a VM?
 - c. Who from the visitors would like to become a CM?
- 6. Awards (Steve Idem):**
 - Award nominations.
 - 1) Fellow
 - 2) Distinguished Service Award
- 7. Handbook (Vacant, Chair):**
 - 2008 Duct Construction Chapter (no action needed)
 - 2009 Duct Design Chapter – Report will be given by Herman Behls
(Note: Deadline for submittal to the Handbook Committee Liaison is July 9, 2008.)

8. Program (Steve Idem, Chair):

- a. Transactions Session – Chicago, IL (Jan. 2009)
 - 1) TRNS-00034-2008: Pressure Loss of Corrugated Spiral Duct (RR-1319)
 - 2) TRNS-00035-2008: Flat Oval Pressure Loss Coefficients (RP-1319)
 - 3) Influence of Aspect Ratio and Hydraulic Diameter on Flat Oval Elbow Loss Coefficients (RP-1319)
- b. Other Programs for Louisville (June 2009), Orlando January 2010), Albuquerque (June 2010).

9. Research (Herman Behls, Chair):

- a. **RP-1319 “Laboratory Testing of Flat Oval Elbows to Determine Loss Coefficients”**:
Dr. Idem, Tennessee Tech (TTU)
 - 1) Final Report
 - 2) TRNS-00034-2008: Pressure Loss of Corrugated Spiral Duct
 - 3) TRNS-00035-2008: Flat Oval Pressure Loss Coefficients
 - 4) Influence of Aspect Ratio and Hydraulic Diameter on Flat Oval Elbow Loss Coefficients
- b. **RP-1333 “HVAC Duct Efficiency Measurements”**: Dr. Culp, Texas A&M
 - Following is from the NYC meeting minutes:
 - 1) Final report to be submitted to TC 5.2 for review prior to the Salt Lake City meeting.
 - 2) Technical paper will be presented at the Chicago meeting.
- c. **TRP-1488 “Laboratory Testing of Flat Oval Tees to Determine Loss Coefficients”**
 - 1) Subcommittee report recommending a Contractor.
- d. **WS-1369 “Design Guidelines to Prevent Snow Causing Shutdown of HVAC Systems”**
 - 1) RAC voted to accept with condition of minor revisions. Their major comments are:
 - a) Scope, Task 2 is confusing.
 - b) Cost appears under estimated (\$90K) when considering apparatus construction and setup.
 - c) It seems that other concepts should be encouraged for consideration by the project team.
- e. **WS-1493 “CFD Shootout Contest – Prediction of Duct Fitting Losses”**
 - 1) RAC reviewed RTAR and voted to accept for development into a Work Statement.
 - 2) Vernon Peppers and Bass Abushakra to prepare WS. Vernon Peppers to take the lead. The following must be addressed:
 - a) Not clear how the results from the shootout will serve ASHRAE and its members.
 - b) Will three “winners” be picked? Then what? Are we expecting designers to then use one of the winning CFD codes? Are we expecting ASHRAE to fund more research to use the CFD codes to generate the loss coefficients? The problem is that CFD codes just cannot calculate the fitting losses reliability so we are not ready to use them for loss coefficient calculations. It would be better to identify the CFD problems and fix them.
- f. **RTAR for Loop Air Systems**

10. Special Publications:

- a. **ASHRAE Duct Fitting Database** Maintenance (V5.0.1) (Herman Behls)
- b. **T-Duct** Program Evaluation (Herman Behls, Pat Brooks, Vernon Peppers)
- c. **Duct Design Manual** (Pat Brooks, Chair)
- d. ADI's (Flexible) **Duct Size Calculator**. (Report by Herman Behls)

11. Standards (Tom Ponder, Chair):

- a. Standard 120 (MOT to Determine Flow Resistance of HVAC Ducts and Fittings): (Herman Behls, Chair)
 - At BOD for approval.
- b. Standard 126 (MOT HVAC Air Ducts): (Richard Evans, Chair)
 - Approved by BOD and ANSI. Sent to printer 31 March 2008.
- c. Standard 90.1 (Energy Standard for Buildings Except Low-Rise Residential Building)
 - TC 5.2 to request Duct Leakage be updated to agree with 2007 *Duct Construction* chapter, 2008 *Duct Design* chapter, and Standard 189.1 (Design of High Performance Green Buildings Except Low-Rise Residential Buildings).

12. Website (Webmaster, Kevin Gebke):

- Please review TC 5.2's web site prior to the Salt Lake City meeting. E-mail comments to Kevin.

13. New Business:

- New business to be discussed.

14. Actions:

- New Action Items.

15. Adjournment