

**ASHRAE Meeting – Chicago**  
**TC 10.1 Custom Engineered Refrigeration Systems**  
**Monday January 23, 2012 2:15 to 4:15 PM**  
**Palmer House - Buckingham**

**MINUTES**

1. Call to Order by Chair at 2:15pm
2. Self Introduction & Sign Roster - Members, Visitors, and Guests
3. Check for Quorum (9 voting members; 5 required)  
**Daniel J Dettmers, Donald L Fenton, Wayne K Borrowman, Bruce L Griffith, Jim Caylor, Dennis I Halsey, Donald A Siller, Eric M Smith, Ronald P Vallort**  
Quorum established at 7 of 9.
4. Changes and additions to Agenda  
  
No changes or additions.
5. Approval of Minutes from Montreal  
  
Moved to approve, Siller moved, Fenton seconded. Motion passes 5-0-0 CNV. Prior to WB & DH arrival.
6. Welcome to new members from TC 10.4
  - a) Short discussion on integration of two committees
  - b) Any need to change the scope of TC 10.1?
    - i) See Montreal minutes 11). c). i. for previous discussion
7. Chairman's Report from Section 10 Chair Breakfast
  - a) ASHRAE rebranding
  - b) Provisional Corresponding Member
  - c) TC members cannot speak on behalf of TCs unless you have an approved position statement from the TC.
  - d) CEC proposed change...Dan to give me information.
  - e) Website up to date.
  - f) Thanks offered to everyone for their participation at ASHRAE.
8. Liaison Reports
  - a) Refrigeration Committee (Doug Scott)
    - 1) NIST/ASHRAE Refrigerants Conference

- 2) Refrigeration Sustainable Design Guide out for bid. PES is currently working on it. No hurry for finishing on the ASHRAE end yet because of timing of UNEP funding (April 2012).
  - 3) Refrigerant Management Plan is updated and sent back to Tech Council.
  - 4) Commissioning Guide special project was recommended to approve. Approved contingent on co-funding. Next to Tech Council.
  - 5) Survey of ASHRAE membership. 500 with refrigeration interest responded. Will be used to focus ASHRAE's refrigeration direction for the next several years.
  - 6) From top of ASHRAE, Doug is getting the sense that the Society is supportive of refrigeration.
  - 7) Refrigeration Reception is being tried again.
- b) IIAR (Bruce Badger & Eric Smith)
- 1) Updated IIAR PSM/RMP Guide is in its final stages, out in March at the conference.
  - 2) IIAR Piping Handbook has been updated.
  - 3) Standard 1 (Definitions) & 5 (Startup & Commissioning) are complete.
  - 4) Other standards (3 total) are in process.
  - 5) Website is being updated.
  - 6) Reaffirmation of IIAR 2 including restructuring to accommodate & remove redundancies of the new standards.
  - 7) IIAR Conference in March in Milwaukee, WI. Encouraged people to attend.
- c) Other Liaison Reports and Announcements
- 1) Handbook (Don Fenton): Need to get started on the chapters.
  - 2) IIR (Andy Pearson):
  - 3) TAC (Eric Adams): Thanks for everyone's work.

#### 9. Review of Action Items from Montreal

- 1) Help Tom Wolgamot with Research.
- 2) Help John Sluga with Handbook.
- 3) Doug Reindl & Kent Anderson will review Standard 15 FAQs.
- 4) Cryogenic subcommittee: No one attended, will maintain the room assignment for a few meetings.

#### 10. Subcommittee Reports

- a) Membership – Don Fenton
- i) Establish membership for 2012-13 Society year
 

**Officers:** Chair, DD; Vice Chair, DF; Secretary, TJ; Standards, BG; Research, Tom Wolgamot; Handbook, JS; Program, WB; Webmaster, RH.

**Rolling off:** Bruce Griffith, Don Siller, Wayne Borrowman.

**Rolling on:** John Sluga, Jim Young, Andy Pearson
- b) Research – David Wylie
- i) 1513-WS – “Liquid/Vapor Separating Velocities for Industrial Refrigeration Systems”
 

Co-sponsored with TC 10.3; 10.3 is lead TC. Add R-507, CO<sub>2</sub>, Hydrocarbons. **Todd will send out for review & letter ballot attempting to get the workstatement updated by the February 15 deadline.**

- ii) 1514-WS – “Thermal Energy Recovery from Industrial Refrigeration Systems”  
 Comment back was too broad, remove the field work. Will remove the field work and add the simulation of active heat pumping. **Doug Scott will shoot for the June deadline.** TJ will help rework it. Pradeep should be copied on all work to keep him current.
- iii) 1634-WS – “Guide for Sustainable Refrigerated Facilities and Refrigeration Systems”  
 (1) Out for bid – Doug Scott
- iv) 1448-RP – “Ventilation Requirements for Refrigeration Machinery Rooms” (TC 4.3) (Bruce Griffith)  
 (1) Draft report issued. Will not be voted on by TC 4.3 at this meeting.  
 (2) Refrigeration Committee has requested to review & comment prior to approval.  
 (3) Submitted for information only to TC 10.1. No action by committee in light of prior Refrigeration Committee & Standard 15 action. **Bruce Griffith will keep TC 10.1 updated on the project.**
- v) 1472-RP – “Experimental Validation of Modeling Tools for Mixed Gas Refrigeration Cycles”  
 (1) RP from TC 10.4  
 (2) Researcher informed the Chair it is complete and approved by the PMS from TC 10.4.  
 (3) 1472-RP has been closed according to Pradeep. **Action Item for DD to insure that ASHRAE has 1472-RP finalized.**
- vi) 1602-WS - “Thermal-Fluid Behavior of Mixed Refrigerants for Cryogenic Applications”  
 (1) Has been bid & received only one (1) bid. Lack of 10.4 structure has left it hanging, the PES will have to convene virtually, and it will go out for a letter ballot.
- vii) Future research priorities and volunteers for RTAR development  
**David Wylie will send research ideas list to DD. DD will circulate the research ideas list to the members. TC will review the list & prioritize or add to the list.** We will then either have a conference call or schedule a brainstorming or working session at the next ASHRAE meeting.  
**Object-oriented simulation of refrigeration systems RTAR.** Igor Vaisman with help from Marty Timm & Zahid Ayub.
- c) Program -- Wayne Borrowman
  - i) San Antonio meeting: June 23-27, 2012
    - a) Small natural refrigeration systems or commercial applications of natural refrigeration. Have 4 potential speakers at this point. No firm commitments from speakers.
    - b) Rating of compressors: Doug Scott to resubmit (rejected for Las Vegas)
    - c) Other ideas
      - a. OSHA NEP Program
      - b. PSM programs on elements
  - ii) Dallas Meeting: January 26-30, 2013
- d) Handbook -- John Sluga
  - i) Volunteers chapter (#) responsibility:
    - (1) Liquid Overfeed Systems (4): Good shape?
    - (2) Component Balancing in Refrigeration Systems (5) – needs fundamental change: Igor Vaisman
    - (3) Secondary Coolants in Refrigeration Systems (13): DH & BG
    - (4) Concrete Dams and Subsurface Soils (45): None yet.
    - (5) Refrigeration in the Chemical Industry (46): None yet.
    - (6) Terminology of Refrigeration (50): DD

- (7) Cryogenics (47): Marty Timm, Jim Young, Pradeep
- (8) Ultralow-Temp Refrigeration (48): Marty Timm, Jim Young, Pradeep
- (9) Biomedical (49): Marty Timm, Jim Young, Pradeep

- e) Standards -- Bruce Griffith
  - i) Standard 15
  - ii) Other

11. Old Business

- a) Objectives
  - i) MBO #1 – Develop programs
  - ii) MBO #2 – Support sustainability efforts
  - iii) MBO #3 – Increase research activities
- b) Web site is up to date.
- c) Promote Awards: Hightower, Milt Garland, Comfort Cooling Awards
- d) Refrigeration articles for ASHRAE Journal
- e) Update on ASHRAE and NIST “Refrigerants Conference”
  - i) See Montreal minutes 12). for previous announcement

12. New Business

- a) 2011-2012 MBOs
- b) Refrigeration commissioning – possible subcommittee
- c) Discuss committee scope related to industrial heat pumping
- d) The 12th Cryogenics 2012, IIR International Conference Dresden, Germany on September 10-14, 2012
  - i) Deadline for abstracts on January 31, 2012
  - ii) <http://www.icaris.cz/conf/Cryogenics2012>

13. Announcements

- a) Cryogenics Refrigerants Subcommittee: Sunday 3:00-5:00p, LaSalle 4 (7)**
- b) All other 10.1 subcommittee meetings: Sunday 5:00-7:00p, Sandburg 4 (7)**
- c) Seminar 43: *Industrial Refrigeration Worst Practices*: Wednesday, January 25, 2012, 8:00-9:30a, Empire

14. Next meeting June 23-27, 2012 in San Antonio

15. Adjourn

Motion to adjourn: Siller moved, Griffith seconded. Unanimously passed.

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TC 10.1 Name	Position	e-mail
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