

Minutes of ASHRAE Technical Committee 10.1 (Unapproved)
Custom Engineered Refrigeration Systems
Las Vegas, NV Meeting – Las Vegas Convention Center – Room N239
January 31, 2011

Action items:

#1. Action Item: Doug Scott: notify all TC 10.1 members that passport, and possibly other documents, is needed to enter and leave Canada for the Montreal Annual Meeting this summer.

#2. Action Item: David Wylie. Coordinate with TC 10.3 on revision of 1513 WS.

#3. Action Item: David Wylie. Coordinate revision of 1514 WS and resubmit to RAC.

- 1) Call to order by Chairman Doug Scott at 2:15 PM.
- 2) Self-introduction and roster sign-in.
 - a) The Chairman requested self-introduction of members, corresponding members, and guests. All present were asked to sign the roster. There were 24 in attendance. See attachment A for information of those attending.
- 3) Quorum call.
 - a) A quorum was established with 5 of 9 voting members present (including chair). Present: Anderson, Borrowman, Griffith, Scott (chair), Siller. Absent: Cleland, Sluga, Struder, Vallort.
- 4) Approval of agenda.
 - a) Added to agenda by Doug Scott (chair): discussion of proposed commissioning guide for industrial refrigeration systems.
 - b) Agenda approved as amended. No vote taken.
- 5) Minutes from Annual 2010 (Albuquerque, NM). Motion to approve as submitted by Bruce Griffith, seconded by Kent Anderson. Approved. Vote: 5-0-0
- 6) Chairman's report from Section 10 breakfast.
 - a) Eric Adams is the Section 10 head.
 - b) ASHRAE has established a "help wanted" on the ASHRAE website to assist TC's in acquiring new members.
 - c) TC rosters are available to all TC members from the ASHRAE website.
 - d) Walk-in freezers and coolers are the responsibility of TC 10.5 and TC 10.7. The distinction has traditionally been that if the walk-in has glass doors, it belongs to TC 10.7. If the walk-in does not have glass doors, then it is the responsibility of TC 10.5. California has developed performance standards for walk-ins and the federal government is now considering performance standards. Apparently, ASHRAE has not contributed to the California nor the federal effort in developing these standards.
 - e) For the summer meeting in Montreal, Canada, passports will be needed by all living outside of Canada.
ACTION ITEM #1. Doug Scott to notify all TC 10.1 members that passport is needed, and possibly other documents, to enter and leave Canada for the Montreal Annual Meeting this summer.
- 7) Liaison reports.
 - a) Refrigeration Committee, Don Siller

- i. Climate Change International conference discussed in conjunction with scientific evidence suggesting that ozone levels in the atmosphere are increasing somewhat as shown by the reduction in the ozone “hole” over Antarctica.
 - ii. ASHRAE’s position document on ammonia as a refrigerant has been updated by the REF with minor changes.
 - iii. Procedural changes in the selection of the Milt Garland award including a new cover form requesting different information and nominations made at the chapter level are submitted directly to REF.
 - iv. RTAR concerning the development of guide for sustainable refrigeration facilities was approved. Minor clarifications are still needed. ASHRAE has committed \$150,000 to this project and additional outside support is pending.
 - v. The George Briley award has been awarded to Richard Royal (Wal-Mart) for the article titled “Heat Recovery in Retail Refrigeration” published in the February 2010 (Vol. 52 (2)) edition of the ASHRAE Journal.
 - vi. A winner for the Milt Garland award has been selected.
 - vii. REF discussed the development of a commissioning guide for industrial and commercial refrigeration systems.
 - viii. NIST has agreed to host a refrigerants conference most likely over the summer months of 2012.
 - ix. REF considered the enlargement of its scope. A consensus was not obtained and discussions will continue.
- b) Handbook liaison, Don Fenton
- i. The new Refrigeration Handbook liaison from the handbook committee to TC 10.1 is Don Fenton.
 - ii. John Sluga is the Refrigeration Handbook subcommittee chair TC 10.1.
- c) IIAR, Bruce Badger
- i. Discussed several IIAR documents now in preparation.
 - ii. Concerns expressed regarding US OSHA’s desire to apply IIAR guidance documents in a regulatory manner to the refrigeration industry. IIAR was requested to follow this development and provide help to the refrigeration industry.
- 8) Review of Action items from Albuquerque, NM, meeting
- DONE #1. Action Item: Doug Scott: Send ASHRAE’s new research strategic plan to TC 10.1 members. Provide feedback to Doug. Also, the new research strategic plan is available as a downloadable file the ASHRAE website.
- ONGOING #2. Action Item: John Sluga: In preparation for the 2014 Refrigeration Handbook, copy Mark Owen (ASHRAE Handbook Editor) on communications regarding updated chapters.
- ONGOING (RTAR SUBMITTED. RETURNED WITH COMMENTS) #3. Action Item: Dennis Halsey, Todd Jekel, and Don Fenton: Respond to RAC and revise WS 1513 concerning liquid droplet separation velocities as appropriate for resubmission. Coordination with TC 10.3 is needed as this is the lead TC. RAC due date is August 15.

ONGOING (RTAR SUBMITTED, RETURNED WITH COMMENTS) #4. Action Item: Bob Davis: Develop work statement for RTAR-1514 concerning energy recovery in industrial refrigeration systems. RAC due date is August 15.

9) Subcommittee reports

a) Membership, Don Fenton

- i. Todd Jekel is the incoming secretary for TC 10.1
- ii. New members for next roster year: Eric Smith (IIAR), Ryan Hoest (VaCom), Ron Vallort (Ron Vallort and Associates)
- iii. New corresponding members: Robert Davis (Pacific Gas and Electric Company), Lane Loyko (PLA Corporation), Alan Neely (Pittsburgh Corning Corporation), Mark Pearson (ThermoFisher Scientific), Eric Smith (IIAR), and Jim Young (Insulation Systems).

b) Research, David Wylie

- i. 1513 WS returned from RAC with comments. The comments will be addressed and resubmitted.
ACTION ITEM #2. David Wylie. Coordinate with TC 10.3 on revision of 1513 WS.
- ii. 1514 WS submitted to RAC, and is expected to be returned with comments. Comments will be addressed and resubmitted.
ACTION ITEM #3. David Wylie. Coordinate revision of 1514 WS and re-submit to RAC.
- iii. Report on 1448-rp. Bruce Griffith. Literature review is complete. Tasks 2 and 3 are continuing. A no cost time extension has been requested.
- iv. Research Subcommittee report: Research ideas discussed were: (a.) compressor performance applied to walk-in freezers and coolers are influenced by vapor return temperatures that adversely affect mass flow rates, especially for refrigerant blends, (b.) reliability of a refrigeration system's safety (critical) equipment is a concern as it is known that some of these critical systems have not operated when needed in the past, (c.) guideline for thermal storage for industrial refrigeration systems, (d.) flow of pathogens in a refrigerated facility.

c) Program, Wayne Borrowman.

- i. Program slots submitted by TC 10.1 concerning refrigeration applications for Las Vegas were denied.
- ii. Motion: TC 10.1 recommends that an even balance of program slots be maintained between refrigeration applications and refrigerants in the refrigeration program track. Wayne Borrowman, Kent Anderson second. Vote: 5-0-0.

d) Handbook, volunteers requested to review the chapters submitted for the 2010 Refrigeration Handbook. Copies in Microsoft Word will be available in about a month from ASHRAE Headquarters.

e) Standards, Bruce Griffith.

- i. Bruce reported on standards and pending actions.

10) Old Business

a) Objectives

- i. MBO #1 – Develop programs (ongoing)

- ii. MBO #2 – Support sustainability efforts (ongoing)
 - iii. MBO #3 – Increase research activities
 - b) Web site updates have been completed.
 - c) Promote Awards: Milt Garland and George Briley awards have been selected for the 2010-2011 year.
 - d) Refrigeration articles have appeared in the ASHRAE Journal.
- 11) New Business
 - a) New MBOs. No new MBOs developed.
- 12) Announcements
 - a) Research/Handbook subcommittee meetings: Sunday 5:00-7:00p (LVCC) N217
 - b) Standards/Program subcommittee meetings: Sunday 5:00-7:00p (LVCC) N218
 - c) Seminar 22 – Vapor-Compression Cycles, Systems and Components with Natural Refrigerants
 - d) Seminar 40 – Advancing Energy Efficiency in Commercial Refrigeration
 - e) Forum 4 – The Technical Basis of the Federal Walk-in Efficiency Standard
 - f) Seminar 53 Introducing the 2010 Refrigeration Handbook, now with CO2!
- 13) Next meeting June 25-29, 2011 in Montreal, Quebec Canada
- 14) Adjourned: 4:20 PM.

Attachment A

	Name	Company/Affiliation
1	David Wylie	ASW Engineering
2	Robert Davis	Pacific Gas & Electric
3	Dennis Halsey	GEA FES, Inc.
4	Eric Smith	IIAR
5	Bruce Badger	IIAR
6	Andy Pearson	Star Refrigeration
7	Kent Anderson	Retired
8	Donald Siller	Siller & Associates
9	Bob Burdick	Carnot
10	Layne Loyko	PLA Corp.
11	Alan Neely	Pittsburg Corning
12	Doug Reindl	IRC
13	Bruce Griffith	Johnson Controls
14	Zahid Ayub	Isotherm, Inc.
15	Ryan Hoest	VaCom Technologies
16	Jim Young	ITW Insulation Systems
17	Jack Blundell	ITW Insulation Systems
18	Todd Jekel	UW-IRC
19	Kent Perkins	Colmac Coil
20	Mark Pearson	Thermo Fisher Scientific
21	Don Fenton	Kansas State Univ.
22	Doug Scott	VaCom Technologies
23	Wayne Borrowman	Cimco Refrigeration
24	Dan Dettmers	UW-IRC