

**AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR-CONDITIONING ENGINEERS,  
INC.**

**1791 Tullie Circle, N.E./Atlanta, GA 30329  
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**TC/TG/TRG MINUTES COVER SHEET**

**(Minutes of all TC/TG/TRG Meetings are to be distributed to all persons listed below within 60 days following the meeting.)**

TC/TG/TRG NO 10.7 DATE January 26, 2012

TC/TG/TRG TITLE Commercial Food and Beverage Display and Storage Equipment

DATE OF MEETING January 23, 2012 LOCATION Chicago, IL, USA

MEMBERS PRESENT	YEAR APPTD	MEMBERS ABSENT	YEAR APPTD	EX-OFFICIO MEMBERS AND ADDITIONAL ATTENDANCE
Dean Swofford	2010	Massoud Ali	2010	Not noted
Van Baxter	2008	Scott Mitchell	2008	
Georgi Kazachki	2009	Massoud Neshan	2010	
Cesar Luis Lim	2010	Rob Uhl	2008	
Sam Cantrell	2009			
Maryline Rassi	2010			
Robert Sperl	2010			

**DISTRIBUTION**

*All Members of TC/TG/TRG plus the following:*

TAC Section Head:	Eric Adams
TAC Chair:	Charles Wilkin
TAC Vice-Chair:	Charles Culp
All Committee Liaisons As Shown On TC/TG/TRG Rosters:	Pradeep Bansal – RAC Alan Podhorodeski – Handbook Richard Hall – Standards Stanley Mumma - Special Pubs Dennis Wessel – Program Scott Wayland– CTTC Florentino Mendez – ALI/PDC
Manager Of Standards	Stephanie Reiniche
Manager Of Research & Technical Services	Mike Vaughn
Admin Asst – Technical Services	Tara Thomas

Note: "These draft minutes have not been approved and are not the official, approved record until approved by this committee."

August 14, 2011

## Call to Order - Dean Swofford

Dean called the meeting to order at 2:15 pm in the State Ballroom in the Palmer House Hilton in Chicago, IL

## Introductory Comments – Dean Swofford

Members and guests introduced themselves

## Review Scope of the Committee and (MBOs) – Dean Swofford

Dean reviewed current Scope and MBOs.

## Review and Revise Agenda – Dean Swofford

Dean asked for any proposed changes to the agenda.

Randy Hasseman – UL – will give an update on the Flammable Refrigerants Joint Task Group in the New Business section of the meeting.

Michele Friedrich noted that the Scope of the committee doesn't appear to include commercial refrigeration systems or some addition commercial refrigeration equipment that we believe we are responsible for (ice machines, hot food holding equipment). The Title of our committee may not reflect our scope with systems as well. After a painfully long debate, a subcommittee was formed to come up with recommendations for a TC10.7 Title and Scope change which will be presented to the full committee in San Antonio. Members of the TC10.7 Title and Scope Revision Subcommittee are Dean Swofford, Michele Friedrich, Ramin Faramarzi, Cynthia Gage, and Sriram Somasundaram. The subcommittee will conduct a teleconference and send out recommendation a few weeks prior to San Antonio for review by the full committee – a change will require a TC10.7 vote as well as approval by ASHRAE.

## Recognition of Liaisons and Announcements – Dean Swofford

Section Head - Eric Adams

Eric thanked members of the committee for their service to ASHRAE.

Refrigeration Committee – Caesar Lim

Caesar announced the conference on refrigerants that ASHRAE is sponsoring with NIST to be held in October in Gaithersburg, MD.

Research Liaison – Pradeep Bansal

Pradeep encouraged our committee to submit more RTARs and Work Statements as there are not that many in the pipeline and funds will be available for new projects.

## Chairmans' Breakfast - Dean Swofford

The society "rebranding" work was summarized – we will need to update our TC10.7 website with the new logo and motto. Several conferences are coming up and Dean will send out a note summarizing these. ASHRAE has set up a new FAQ email list and our committee will be required to respond as questions come in.

The handouts from the Section 10 breakfast will be sent out along with the draft minutes from this meeting.

## Establishment of a Quorum – Dean Swofford

Dean Swofford, Van Baxter, Georgi Kazachki, Maryline Rassi, Robert Sperl, Sam Cantrell and Cesar Luis Lim were in attendance. With seven voting members present out of ten voting members on the committee, a quorum was established.

## Review Draft Minutes from the Montreal Annual Meeting – David Hinde

David asked if there were any required or recommended modifications and there were none. Van Baxter moved to approve the minutes as written and Cesar Luis Lim seconded. The motion passed with no objection.

## **Subcommittee reports**

### Program – Cynthia Gage

The Program Subcommittee met on Sunday afternoon. The forum submitted by Carl Roberts for Chicago on supermarket hot-gas defrost design was not accepted. Carl requested that the committee hold back resubmission of the forum until the Dallas meeting when the Expo will draw industry participants with appropriate experience to add to the discussion. For San Antonio the Program Subcommittee identified two potential seminar topics: demand responses/load shifting and ambient air interactions.

These topics were discussed during the full TC meeting which voted to approve submission of both seminars. Van Baxter agreed to chair the first seminar "Demand Side Management Opportunities in Commercial Refrigeration". Speakers identified for this seminar were Daryl Erbs, Dave Cowen, and Scott Mitchell. Dave Hinde agreed to chair the second seminar "Ambient Air Interactions In Commercial Refrigeration." This session would include a speaker from the TC's research project RP 1467 - Balancing latent load between cases and store comfort cooling. Homayun Navaz also agreed to present at this seminar on infiltration rates in walk-in coolers.

Georgi Kazachki asked the TC to co-sponsor a seminar on "Design, Performance, and Efficiency Impacts of Low-GWP Refrigerants on Systems and Components". Some speakers have already been identified, but Georgi asked for anyone interested in being a presenter to send him an e-mail giving their name, the title and a brief abstract. The TC voted to approve co-sponsorship of this seminar.

Beside the forum resubmission, two tentative seminars were also discussed for Dallas. The first on performance results for alternatives to high GWP refrigerants. The intent was to present results from the AHRI test program which would be completed by the mid-summer. Patti Conlan and Mark Spatz indicated that they might also have something to present at that time on R404a retrofits. Ramin Faramarzi proposed the second seminar on demand defrost for medium temp as SCE's work should be completed in time for Dallas.

### Research - David Hinde

- Meeting Sunday 6:00-6:45 PM, Room: LaSalle 2
- Project 1467 – Balancing Latent Heat Load between Display Cases & Store Comfort Cooling
  - Daryl Erbs – Update ([Room and Date change to Tuesday 5:30 – 6:30, Burnham 1](#))
- Project 1484 (TC3.1, with TC 10.7 co-sponsor) – Energy and Performance of Secondary Coolant Low Temperature Refrigeration Systems
  - David Hinde – Update from TC3.1 Research Subcomm. Meeting
- WS 1580 (TC 3.1, with TC 10.7 co-sponsor) – Risk Assessment of 2L Flammable Refrigerants in Stationary Applications for a) Residential A/C and Heat Pumps, and b) Small Commercial Refrigeration
- RTAR 1615 (TC7.5, with TC 10.7 co-sponsor) - Fault Detection and Diagnostic Methods for Supermarkets
- RTAR 1634 – Refrigeration Design Guide

- Proposed RTAR – Charge reduction strategies focusing on heat exchangers (Daryl Erbs, Chad Bowers, Dan Manole)
- Proposed project – Sources of Leakage in North American Retail Refrigeration Systems (Daryl Erbs)
- Proposed project – Measurement and modeling of return gas temperatures in real supermarket refrigeration systems (Doug Scott, TC 10.1)
- Proposed project – Refrigeration Systems Commissioning
- New Project Ideas:
  - Dave Hinde - Summary

### Handbook – Dave Demma

Dave was unable to come to this meeting so it was decided that the kick off meeting will be conducted at the San Antonio meeting.

### Standards - Van Baxter

Standard 72-2005, “Method of Testing Commercial Refrigerators and Freezers” - Revision work is complete and a new edition will be published in 2012. The SPC has started another review of this standard to deal with one glaring hole in the standard - testing a unit with a transcritical inlet or outlet condition. The SPC chair, Charles Hon, reported that a DoE representative, Ashely Armstrong, attended the SPC meeting and provided an update on DoE actions relevant to the standard.

Standard 32.1-2010, “MOT for Rating Vending Machines for Bottled, Canned and Other Sealed Beverages” – The standard is published and the next TC review is scheduled for 2013.

Standard 32.2-2003 (RA 2011), “MOT for Rating Pre-Mix and Post-Mix Beverage Dispensing Equipment” - The standard is published and the next TC review is scheduled for 2014.

Standard 29-2009, “Method of Testing Automatic Ice makers” – SPC 29 (Daryl Erbs, chair) held its first meeting in Chicago right after the TC 10.7 meeting. A total of 8 individuals attended and expressed interest in participating in SPC 29. A discussion on the need for revision to Standard 29 was held with the group.

Standard 18-2008, “Method of Testing for Rating Drinking-Water Coolers and Self-contained Mechanical Refrigeration” – TC 10.7 became cognizant for this standard when TC 10.9 was disbanded in 2011. Van reported that this MOT is referenced by one active Canadian standard (**CAN/CSA-C815-09** – “*Energy performance of drinking water coolers,*” last revised May 2010). It is also being referenced in a proposed change to the International Plumbing Code dealing with drinking water coolers. A motion was made and seconded that TC 10.7 recommend to Standards Committee that Standard 18-2008 be reaffirmed and that editorial changes recommended by the ASHRAE staff review of the standard be incorporated (these changes were judged to be non-substantive in nature, not changing the meaning or intent of the clauses impacted). The TC vote was 7-0-0-3, chair voting, to approve the motion.

SPC 210 - Method of Testing for Rating Commercial Walk-in Refrigerators and Freezers – The paperwork required to establish a new project committee to write the standard was submitted to Standards Committee just before the Chicago meeting. The Standards PPIS subcommittee (on Jan. 20) and the Standards Committee (on Jan. 21) voted to approve the request and designated the new project committee as SPC-210P with Kristina Kamensky as chair. (**Secretary’s note:** Subsequent to the TC 10.7 meeting the ASHRAE Board ratified the Standards Committee decision. The new SPC plans to hold its first meeting in San Antonio).

SPC 147-2002R, “Reducing the Release of Halogenated Refrigerants from Refrigerating and Air-Conditioning Equipment and Systems” – The SPC met last night and went through 19 substantive comments received from the third public review. A few changes made to the document in response to the comments were substantive so

a fourth public review will be required, but only for the substantive changes. Hopefully the new edition of Standard 147 will be published before the Dallas meeting.

#### Website –Rob Uhl

Rob was unable to attend so Dean indicated that the website is up to date but will be changed soon accommodate the new ASHRAE look. Kyle Larson has volunteered to be the new webmaster and will start on July 1<sup>st</sup>.

#### New Business – Dean Swofford

Randy Haseman spoke about the Flammable Refrigerant Joint Task Group that UL has put together. The JTG consists of about 50 manufacturers and other interested parties. The purpose of the JTG is to develop requirements for the use of flammable refrigerants. There are three Working Groups within the JTG, one for air conditioning equipment, one for refrigeration equipment, and one for the refrigerants. It is expected that the JTG will finish their work in about a year and make recommendations to the various standards development bodies. These are primarily UL's Standards Technical Panels (STPs) for the above equipment but other North American standards will also be affected. With regards to commercial refrigeration, it is noted that UL 471, the standard for commercial refrigerators, already has requirements for flammable refrigerants. Other standards such as the ones for commercial ice makers and ice cream makers will be revised as a result of the JTG activities.

#### Adjourn – Dean Swofford

With no further business before the committee, Dean adjourned the meeting.