

**ASHRAE TC 10.7**  
**Commercial Food & Beverage Refrigeration Equipment**  
**Minutes of 2016 Summer Meeting**  
**St. Louis, MO - June 27, 2016**

**1. Welcome & Introductions**

Chairman Charlie Hon welcomed the members and guests and called the meeting to order at 2:19 pm. Members and guests introduced themselves. The Agenda was distributed, and a sign-in sheet was circulated. Mr. Hon reminded everyone that the ASHRAE Code of Ethics must be adhered to by those doing ASHRAE business whether or not the participant is an ASHRAE Member. The Code of Ethics can be found at <https://www.ashrae.org/about-ashrae/ashrae-code-of-ethics>

**2. Review and Revise Agenda**

No changes were requested and the agenda was approved.

**3. Determination of Quorum**

Quorum was established with nine (9) of twelve (12) voting members present.

Members Present: Charles Hon (VM 6/17), Timothy Anderson (VM 6/19), Lauren Zelinski (VM 6/19), Shitong Zha (VM 6/19), Caleb Nelson (VM 6/18), Cynthia Gage (6/16), Jon Murray (6/18), Pradeep Bansal (6/19), Cesar Lim (Non-Quorum 6/19), Gustavo Pottker(6/19)

Not Present: Dave Demma (VM 6/16), Carl Roberts (6/18), Patti Conlan(6/19),

**4. Scope / MBO's**

For the benefit of guests, Hon read the TC's scope and objectives. He referred participants to the Agenda to find these items in detail.

**5. Liaisons & Announcements**

Committee Liaisons were acknowledged and brief announcements were given.

▪ **MTG – Low GWP (Brian Fricke)**

The committee thanked TC 10.7 for allowing them to cosponsor Seminar 33 and is interested in additional future opportunities for collaboration on any additional submissions regarding low GWP.

Project on Risk of A2L Refrigerants. Joint Research sponsored by DOE, AHRI, and ASHRAE. There is a good possibility that the MTG on Low GWP will be the cognizant committee for monitoring and review of this project.

- Chairman Hon informed the committee that there was a newly formed MTG which may be of interest to TC 10.7. It is titled: *Impact of ASHRAE Standards and technology on Energy savings/performance*. Charlie Hon will sit on the committee and provide updates to TC 10.7 as this TC has many standards that fall into this category.

▪ **Section head report from TAC**

Publication department is looking for any new ideas for manuals, standards, articles.

There will be another refrigeration track in Long Beach and TC 10 should consider providing submissions for this track.

- **Liaison from RAC report**

Technical Counsel informed RAC that they would like to direct research towards applied research and to let committees know they should emphasize this.

They are also implementing requirements for justification of abstentions or negative votes on an RTAR or WS when they are submitted.

## 6. Membership

Chairman Hon asked the group to update any email addresses and information on their ASHRAE bios in order to clean up the membership and correspondence lists of this committee. He urged those who would like to receive information regarding this committee and ongoing activities to visit the 10.7 ASHRAE page to request information.

Current Membership was reviewed as listed below:

2016-2017 membership table:

<u>Voting Members</u>	<u>End Date</u>	<u>Leadership Team</u>	
Timothy Anderson	6/30/2019	Chair:	Charles Hon
Pradeep Bansal	6/30/2019	Vice Chair:	Timothy Anderson
Patti Conlan	6/30/2019	Secretary:	Lauren Zelinski
Daryl Erbs	6/30/2020	Handbook Chair:	David Demma
Massoud Neshan	6/30/2020	Program Chair:	Caleb Nelson
Charles Hon	6/30/2017	Research Chair:	Shitong Zha
Cesar Lim (NQ)	6/30/2019	Standards Chair:	Van Baxter
Jon Murray	6/30/2018	Webmaster:	Kyle Larson
Caleb Nelson	6/30/2018	MTG.LowGWP Liaison:	Brian Fricke
Gustavo Pottker	6/30/2019		
Carl Roberts	6/30/2018		
Lauren Zelinski	6/30/2019		
Shitong Zha	6/30/2019		

The following members will be rolling off after this meeting and Chairman Hon thanked them for their contribution to the committee over the past few years. Cynthia Gage and Dave Demma.

At this time there are also two new additions to membership of 10.7. The following members agreed to serve starting after this meeting: Massoud Neshan, Daryl Erbs.

## 7. Review Draft Minutes from the 2015 Summer Meeting in Atlanta, GA

Minutes were reviewed and there were minor editorial comments addressed. Motion was made and duly seconded to approve the minutes. VOTE: 9-0-0-3

## 8. Subcommittee reports

### A. Program Subcommittee (Caleb Nelson, Chair)

#### St. Louis Programs

**SEMINAR 33** *Innovation in a Commercial Refrigeration System with Natural Refrigerants and Low GWP Synthetic Refrigerants*

Tuesday 8:00 – 9:30 am Room: 221

Sponsor: 10.07 Commercial Food and Beverage

Cooling Display and Storage, MTG Low GWP

Chair: Shitong Zha, Ph.D., Member, HILLPHOENIX, Conyers, GA

**SEMINAR 13** *Advancements in Compressor Design, Testing and Performance Modeling for New Efficiency Standards and Alternative Refrigerants*

Sunday 1:30 – 3:00 pm Room: 221

Sponsor: 08.01 Positive Displacement Compressors, Refrigeration Committee

Chair: Georgi Kazachki, Ph.D., Fellow

The following suggestions were made for potential seminars and papers for Las Vegas or Long Beach, CA.

- TRP 1467- *Latent Heat Load Balancing*
- *Mitigating Grid Impact on Refrigeration Systems*. Daryl Erbs and Southern California Edison are pursuing this topic.

### B. Research (Shitong Zha, Chair)

- Project 1467 *Balancing Latent Heat Load between Display Cases & Store Comfort Cooling*  
Tech paper was submitted in January 2016. This is currently under review and are hoping to have a response by the Las Vegas meeting.
- RTAR 1706 – *Minimum Refrigerant Charge Attainment for Commercial Refrigeration Systems*  
TC 10.6 voted to support this effort. There will be a call next week to address comments on this RTAR prior to resubmission. TC 3.4 may also be interested in co-sponsoring this RTAR. Shitong asked if the committee felt this was worth pursuing or not. It was felt that additional cosponsor ship was not necessary at this time. The committee voted to resubmit this RTAR  
VOTE 9-0-0-3
- RTAR 1722 – *Optimizing Air Curtains for Refrigerated Display Cases with Glass Doors*  
This RTAR was rejected. Can be resubmitted at any point in time if the committee wishes.
- RP - 1615- *Fault Detection and Diagnostic Methods for Supermarkets*

This is sponsored by TC 7.5 and co-sponsored by TC 10.7. TC 10.7 had a liaison on the PMS who has not been able to attend meetings frequently. Chairman Hon asked if there were any volunteers to take over this position. Scott volunteered to participate on the PMS and bring updates to TC 10.7. Chairman Hon will send an email to ask that Scott be the replacement for 10.7 representative on this project **(ACTION 1)**

There is a current survey being circulating for this project which members were asked to fill out after the meeting today. The link to participate in the survey is located here: [https://docs.google.com/forms/d/1ZD\\_7YyaOMOhIDnx1i4jqNiCjtRDetLEWrlQ5SsP9guA/viewform?c=0&w=1&usp=mail\\_form\\_link](https://docs.google.com/forms/d/1ZD_7YyaOMOhIDnx1i4jqNiCjtRDetLEWrlQ5SsP9guA/viewform?c=0&w=1&usp=mail_form_link)

- RTAR 1786 *MOT to determine pump load of secondary CO2 system*

This RTAR was accepted. WS needs to be completed by August 15<sup>th</sup> for submission. Tim and Shitong to submit Work Statement for committee review and address the comments received on the RTAR. Potential request for cosponsor from AHRI or DOE. **(ACTION 2)**

- RTAR 1779 - *Optimization of air curtains in vertical display cases, incorporating horizontal air stream.*

RAC rejected because there was only one manufacturer who currently uses this technology. If this is a patented product ASHRAE will not sponsor as there will not be a benefit to the industry as a whole. RTAR to be rewritten prior to suggestion for resubmittal.

New ideas:

- RTAR- *Study of Penalty of Frost Formation and Defrost On Refrigeration System.*

There is not much currently published on defrost and this would be beneficial to the industry. Ramin and Daryl to provide draft RTAR **(ACTION 3)**

- RTAR - *DOE test according to ASHRAE Standard 72 and how instrument accuracies and input tolerances can affect the outcome of the test results and repeatability.*

This could involve both analytical and testing. It was noted that ASHRAE 37 may be doing something similar and this should be considered when developing this RTAR. SPC 37 should be contacted and SSPC 72 should propose an RTAR for this. Lauren will reach out to the chair of SPC 37 to determine the status of this project and then report back to SSPC 72 and TC 10.7 **(ACTION 4)**

- Ad-Hoc Group – *New technology assessment and application for energy efficiency in display cases* (J. Murray, C. Roberts, R. Faramarzi)

The Ad Hoc Group's report will be circulated to the committee for review. Chairman Hon will circulate the report to the committee for review and comments and additions if the members feel there are areas not fully covered by the suggested topics. **(ACTION 5)**

**C. Handbook** (Dave Demma, Chair)

Dave Demma was not present. It was stated that Refrigeration Chapter 16 has not be reviewed or updated in close to 20 years. This needs to be addressed and a new handbook committee chair should be appointed. Brian Fricke volunteered to serve in capacity of chair for the handbook update and will serve as the new committee chair.

It was noted that there is a new authoring tool for handbook which is available to all TC members for review and editing of these documents.

#### **D. Standards subcommittee (Van Baxter, Chair)**

- **SPC 18**

no response was received from manufacturers contacted regarding the use or updates to this standard. Reaffirmation would need a waiver from the codes language but if nothing is done the standard maintains ANSI certification until 2023. The TC felt that no new action was needed at this time.

- **SPC 220P** (Joe Sanders)

Chairman Hon stated that Joe Sanders of Traulsen has agreed to chair this committee.

- **SPC-29** (Daryl Erbs)

Erbs reported that ASHRAE 29-2015 was completed and published.

- **SPC 32.1** (Scott Mitchell)

Standard was approved for publication.

- **SPC 32.2** (Daryl Erbs)

This SPC is meeting tomorrow and is about two thirds of the way through the draft document.

- **SSPC-72** (Jon Murray)

Working on a current draft for publication. After this publication the committee will continue to work on addressing tolerances and instrumentation variance.

- **SPC-210** (Lauren Zelinski)

The committee is working on the draft document and has formed a few working groups to address research needed to address new topics being introduced into Standard 210.

#### **E. website (Kyle Larson, Webmaster)**

Larson stated that the website was up and running and any updates or suggestions were welcome.

### **9. New Business**

One topic of new business was introduced by Chairman Hon

Two new categories besides seminars and papers will be available for submissions in Long Beach CA. These two areas will be Panel Discussions and Debates. The committee can consider submissions for these categories.

### **10. Adjournment**

The meeting adjourned at 4:15 pm.

**TC 10.7 ACTION ITEMS**

**Summer meeting 2016**

<b>ACTION #</b>	<b>Responsibility</b>	<b>Summary of Action</b>	<b>Status</b>
1	Charlie Hon	Submit Scott's name to TC 7.5 for PMS of RP 1615	
2	Tim and Shitong	Complete WS from RTAR 1786 for Committee review and vote	
3	Ramin and Daryl	Propose RTAR for Defrost	
4	Lauren	Follow up with chair of SPC 37 and project on test tolerance and results	
5	Ad- Hoc/Hon	Circulate the report of Ad Hoc group findings for review and comment	
6	Van	Submit for Reaffirmation of Standard 18	
7	Jon	See if Manufacturer interest in revising Standard 18	
8	Van	Submit paperwork to have Blast Chiller SPC formed	
9	Charlie Hon	Follow up with Kyle on Webmaster position	
10			
11			