

ASHRAE TC 10.7
Commercial Food & Beverage Refrigeration Equipment
Minutes of 2017 Winter Meeting
Las Vegas – January 30, 2017

1. Welcome & Introductions

Chairman Charlie Hon welcomed the members and guests and called the meeting to order at 2:16 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 thirteen (13) voting members present.

Members Present: Charles Hon (VM 6/17), Lauren Zelinski (VM 6/19), Shitong Zha (VM 6/19), Caleb Nelson (VM 6/18), Jon Murray (6/18), Cesar Lim (Non-Quorum 6/19), Carl Roberts (6/18), Patti Conlan(6/19),

Not Present: Gustavo Pottker(6/19), Timothy Anderson (VM 6/19), Pradeep Bansal (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)**

This MTG on Low GWP is the cognizant committee for monitoring and review of three projects of joint research by DOE, AHRI and ASHRAE. There following three projects were discussed and brief update given:

- **RP-1806**, *Flammable Refrigerants Post-Ignition Simulation and Risk Assessment Update*. Status: first kick off meeting of PMS held here in Vegas.
- **WS-1807**, *Guidelines for Flammable Refrigerant Handling, Transporting, Storing, and Equipment Servicing and Installation*. Status: bid accepted
- **WS-1808**, *Servicing and Installing Equipment Using Flammable Refrigerants: Assessment of Field-made Mechanical Joints*. Status: Expect to bid & award in 2017

Identify other ASHRAE projects related to alternative refrigerants and the best path for the MTG to contribute to them.

All three projects should be completed by end of the 2017 calendar year. Results will be used for ASHRAE 15 and other such standards. A2L ignition and release testing was done with AHRI. The testing phase has been completed and review is underway. The results are expected to be posted by June 2017.

- **Section head report from TAC**

There is a new website template which ASHRAE is seeking feedback on from the committees. Suggestions for improvements or comments should be provided to committee chairs.

There will be a refrigeration track for seminars, papers, panels, debates in each of the Winter Conferences. There is also a track in Long beach and topics should be submitted by February 6th.

ASHRAE is looking to move subcommittee meetings online prior to ASHRAE conference to free up space and time for full TC and SPC meetings as well as seminars. Subcommittees should consider this and use ASHRAE resources for conferencing or scheduling help.

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:

Voting Members	End Date	Leadership Team	
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
Lauren Zelinski	6/30/2019	Handbook Chair:	David Demma
Shitong Zha	6/30/2019	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		
Daryl Erbs	6/30/2020		
Massoud Neshan	6/30/2020		

Chairman Hon stated that he will be rolling off of membership after the June meeting and noted the interest of Brian Fricke and Dean Swoffard in joining membership as others roll off.

7. Review Draft Minutes from the 2016 Summer Meeting in St Louis, MO.

Minutes were reviewed and upon motion made and duly seconded, the committee voted to approve. VOTE: 9-0-0-3

8. Subcommittee reports

A. Program Subcommittee (Caleb Nelson, Chair)

- Project 1467 *Balancing Latent Heat Load between Display Cases & Store Comfort Cooling* Tech paper was submitted and presented Monday afternoon.

Ideas to be submitted for Long Beach (June 2017)

- conference paper on analysis of water cooled refrigeration systems for food retail industry.
- Daryl chair session on *Mitigating Grid Impact on Refrigeration Systems* – abstract due February 6th **(ACTION 1)**
- High Efficiency Refrigeration systems with Natural Refrigerants. Shitong to submit **(ACTION 2)**

Ideas being considered for Chicago (Jan 2018)

- Seminar- systems fitting new low GWP refrigerants – Caleb Nelson

B. Research (Shitong Zha, Chair)

- Project 1467 *Balancing Latent Heat Load between Display Cases & Store Comfort Cooling* Tech paper was submitted and presented Monday afternoon. This project is complete.
- RTAR 1706 – *Minimum Refrigerant Charge Attainment for Commercial Refrigeration Systems* TC 10.6 voted to support this effort. This RTAR will be resubmitted. **(ACTION 3)**
- RTAR 1722 – *Optimizing Air Curtains for Refrigerated Display Cases with Glass Doors* Carl and Ramin to work on rewrite and resubmit. The committee discussed adding advanced controls. **(ACTION 4)**
- RTAR 1779 – *Research on Efficiency of Soft Tip Jets and Energy Consumption in Vertical Cases* This RTAR was rejected and cannot be resubmitted.
- RP - 1615- *Fault Detection and Diagnostic Methods for Supermarkets* This is sponsored by TC 7.5 and co-sponsored by TC 10.7. Scott stated that work was ongoing and the committee would like additional responses to the survey shown below.

The link to participate in the survey is located here: https://docs.google.com/forms/d/1ZD_7YyaOMOhDnx1i4jqNiCjtRDetLEWrIQ5SsP9guA/viewform?c=0&w=1&usp=mail_form_link

- RTAR – 1786 - *MOT to Determine Pump Load of Secondary CO2 System*
This RTAR was accepted and needs a Work Statement submitted. 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 5)**

New ideas:

SPC 210 has two potential RTARs. The rough draft RTARs were reviewed by the TC 10.7 research subcommittee and the comments will be addressed for the RTARs to be considered for submission.

- RTAR - *Understanding Frost Load Development and Defrosting and How They Relate to Energy Consumption and Efficiency*
- RTAR - *Understanding Single-Compressor Remote Modulating Refrigeration Condensing Units and How They Realize Energy Savings and Higher Energy Efficiency Ratings*

SPC 210 committee to rewrite RTARs and submit for consideration. AHRI, DOE and TC 10.1 could potentially be interested in co-sponsoring these projects. **(ACTION 6)**

- 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, Jon and Carl to write an RTAR. **(ACTION 7)**

C. Handbook (Dave Demma, Chair)

Charlie and Daryl attended the short meeting that was held yesterday. Chapters 15 and 16 are under review and will be submitted for inclusion in the next publication.

D. Standards subcommittee (Van Baxter, Chair)

After many years of reporting standards work to TC 10.7 Van indicated that he will be moving to another position. Chairman Hon and the committee thanked him for his time and assistance and Jon Murray volunteered to fill this position if the committee agreed. **(ACTION 8)**.

Standards:

- **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)

SPC 220P will hold its kickoff meeting this evening in Forum 6. The committee is working on committee roster and balance.

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

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

- **SPC 32.1** (Scott Mitchell)

Standard was approved for publication. It will be published before the June meeting.

- **SPC 32.2** (Daryl Erbs)

The standard should be voted out for review before the June meeting.

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

The committee has review the standard and it will go out for Public Review on February 10th.

The committee will meet for continuous updates being considered within the standards.

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

The committee is working on the two RTARs previously discussed and is continuing to work on the draft standard. They will work with DOE for inclusion of necessary topics in the next release of DOE Standards.

E. website (Kyle Larson, Webmaster)

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

9. New Business

DOE Timelines and revisions

Chairman Hon stated that it is important that TC 10.7 and the related SPCs and TCs on refrigeration continue to monitor DOE updates and timelines. ASRAC website has information on DOE's revision schedules. Chairman Hon highlighted that CRE and WICF rules are up for their next review during the 2017 year.

12th IEA Heat Pump conference

Van provided the TC members with information on the 12th IEA Heat Pump conference. The conference will be held at the World Trade Centre in Rotterdam from May 15th-18th.

10. Adjournment

The meeting adjourned at 4:00 pm.

