

**ASHRAE TC 10.7**  
**Commercial Food & Beverage Refrigeration Equipment**  
**Minutes of 2017 Annual Meeting**  
**Long Beach – June 26, 2017**

**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 ten (10) of thirteen (13) voting members present.

Members Present: Charles Hon (VM 6/17), Lauren Zelinski (VM 6/19), Shitong Zha (VM 6/19), Jon Murray (6/18), Cesar Lim (Non-Quorum 6/19), Carl Roberts (6/18), Timothy Anderson (VM 6/19), Pradeep Bansal (6/19), Daryl Erbs (6/20), Massoud Neshan (6/20)

Not Present: Gustavo Pottker(6/19), Patti Conlan(6/19), Caleb Nelson (VM 6/18),

**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: underway completion should be end of calendar year 2017
- **RP-1807**, *Guidelines for Flammable Refrigerant Handling, Transporting, Storing, and Equipment Servicing and Installation*.
- **RP-1808**, *Servicing and Installing Equipment Using Flammable Refrigerants: Assessment of Field-made Mechanical Joints*.
  - Status: All projects are underway and expected to complete by the end of calendar year 2017

- **Refrigeration Committee (Charlie Hon)**

Charlie gave brief update from refrigeration committee.

## 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. Charlie will be rolling off as chair and voting member. Tim Anderson will be added as chair Jon Murray will be added as Standards Chair and Caleb will be asked to be vice chair. If he denies, Brian will be added as Vice chair. If Brian is added as VC he would be added as a voting member. The leadership team was reconfirmed as below:

Motion was made to add Brian as a VM of TC 10.7 and potential Vice Chair. VOTE: 10-0-0-3

2017-2018 membership table:

| Voting Members (13) | End Date  | Leadership Team                            |                   |
|---------------------|-----------|--------------------------------------------|-------------------|
| Timothy Anderson    | 6/30/2019 | Chair:                                     | Timothy Anderson  |
| Pradeep Bansal      | 6/30/2019 | Vice Chair:                                | <b>TBD*</b>       |
| 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:                           | <b>Jon Murray</b> |
| 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 | *Caleb will be asked with Brian as backup. |                   |
| Daryl Erbs          | 6/30/2020 |                                            |                   |
| Massoud Neshan      | 6/30/2020 |                                            |                   |

## 7. Review Draft Minutes from the 2017 Winter Meeting in Las Vegas, NV.

Minutes were reviewed and upon motion made and duly seconded, the committee voted to approve. VOTE: 10-0-0-3

## 8. Subcommittee reports

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

There is a Wednesday 8-9:30 seminar in room 201A LBCC for High Efficiency Commercial Refrigeration Systems with Natural Refrigerants.

The following additional suggested programs were also discussed.

- Doing it All efficiently with CO2 Refrigeration anywhere in the World
- Design and Performance Validations of Ultralow Charge Ammonia Cascade Systems for Retail Food Environment
- Opportunities for Utilizing Two-Phase Ejectors to Increase Efficiency of Commercial Refrigeration Systems Using Natural Refrigerants
- Packaged Ammonia/CO2 Systems for Refrigeration
- Mitigating Refrigeration Impacts on the Grid

Co-sponsor Refrigeration committee is sponsoring tc 1.1 8.11 and potentially 10.7 seminar for Chicago - Emerging Technologies Digital Refrigeration

Motion made to co-sponsor VOTE: 10-0-0-3

#### **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. RTAT was submitted for RAC review
- 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 1)**
- RTAR 1831 Validation of a Test Method for Applying a Standardized Frost Load on a Test Evaporator in a Test Chamber with an Operating Conditioning System

Motion made to approve submission VOTE: 10-0-0-3

Lauren to submit for fall review **(ACTION 2)**

- 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 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, Jon and Carl to write an RTAR. **(ACTION 4)**

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

Chapter 15 has been updated and is ready to be submitted. The committee updated all outdated information and addressed adding new refrigerants.

Chapter 16 needs some additional input from the committee and is looking for someone to do a final review. (ACTION: letter ballot by the end of July to approve new content) Dave will provide the track changes copy for review to the members who are interested. July deadline to submit for publication. **(ACTION 5)**

#### **D. Standards subcommittee** (Jon Murray, Chair)

##### **Standards:**

- **SPC 18**

The TC felt that no new action was needed at this time.

- **SPC 220P** (Scott Mitchell)

Meeting monthly via web conference. Scott will be stepping down as chair and we are looking for a replacement for SPC 220P.

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

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

- **SPC 32.1** (Scott Mitchell)

Standard was completed and published.

- **SPC 32.2** (Daryl Erbs)

The standard was submitted for PPR.

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

The standard was approved by SPC and will be submitted to PPR following this meeting.

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

The group has been meeting monthly to address the updates to AHRI Standard 1250 and SPC 210 to add the

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

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

#### **9. New Business**

No new business was stated at this time.

#### **10. Adjournment**

The meeting adjourned at 3:11 pm.

## Summer meeting 2017

[illegible]