

ASHRAE TC 10.7
Commercial Food & Beverage Refrigeration Equipment
2020 Winter ASHRAE Meeting

Agenda for Monday, 3 February 2020, 2:15 pm - 4:15 pm
Hilton Orlando, LL, Orange A

Note: The ASHRAE Code of Ethics is to be adhered to by those doing ASHRAE business whether or not they are an ASHRAE member. <https://www.ashrae.org/about-ashrae/ashrae-code-of-ethics>

1. Welcome & Introductions – Sign-In Sheets

2. Review and Revise Agenda

3. Determination of Quorum

4. Review Scope / MBO's

- **TC10.7 Scope:**
 - TC 10.7 is concerned with the application and performance of equipment and systems for the refrigeration of food and beverages in commercial operations. This includes commercial equipment such as refrigerated merchandisers and storage cases, walk-in freezers and coolers (<3000 ft²), beverage vendors and dispensers, commercial ice makers, and water coolers.
- **TC10.7 MBO's (Objectives):**
 - The pursuit of technological advancement of commercial food and beverage equipment and systems to enhance overall performance through improved food safety, food quality, energy efficiency, and reduced environmental impacts.
 - To provide engineering design, application knowledge, and technical expertise to effectively support research and the Refrigeration handbook chapters and standards for which we are responsible.

5. Recognition of Liaisons & Announcements:

- **Committee Liaisons:**
 - Section Head:Charlie Henck
 - Program Committee Liaison:
 - Research Committee Liaison:Lorenzo Cremaschi
 - Handbook Committee Liaison:.....Carlos Brignone
 - Chapter Technology Transfer Committee Liaison:.....
 - Standards Committee Liaison:Kwang Woo Kim
 - Refrigeration Committee Liaison:Charlie Hon
 - ALI/PDC Liaison:
 - MTG Low GWP Liaison:.....Brian Fricke

▪ **Announcements**

6. Membership:

- **Current TC10.7 Management Team**
 - Chair:.....Brian Fricke (VM 06/21)
 - Vice Chair:.....Vacant
 - Secretary:.....Justin Sikorski (NV)
 - Research Subcommittee Chair:.....Shitong Zha (VM 06/20)
 - Standards Subcommittee Chair:Jon Murray (VM 06/23)
 - Program Subcommittee Chair:.....Gustavo Pottker (VM 6/20)
 - Handbook Subcommittee Chair:.....Dave Demma (NV)
 - Webmaster:Kyle Larson (NV)

- **Additional Voting Members:**
 - Cesar Lim (Non-Quorum 06/20), Jeff Bauman (06/23), Daryl Erbs (06/21), Lauren MacGowens (06/23), Massoud Neshan (06/21), Carl Roberts (06/23), Stephen Schaefer (06/23)
- **Roster Review**
 - Need a volunteer for Vice-Chair
 - Management team
 - Voting members

7. Review Draft Minutes from the 2019 Summer Meeting in Kansas City, MO

8. Subcommittee Reports:

- **Program Subcommittee (Gustavo Pottker)**
 - **Meeting:** Sunday, 2 February 2020, 5:15pm – 6:00pm, Hilton Orlando, L, Lake Nona A
 - **Orlando Program:**
 - AHR Expo Session 1: State-of-the-Art Refrigeration Technologies with Lower Environmental Impact, Part 1 (Monday, 3 February 2020, 11:00am – 12:30pm, OCCC-West, Room W311D)
 - AHR Expo Session 6: State-of-the-Art Refrigeration Technologies with Lower Environmental Impact, Part 2 (Monday, 3 February 2020, 3:00pm – 4:30pm, OCCC-West, Room W311D)
 - **Previous program ideas:**
 - IoT, Big Data, and control methodologies to improve the operation and efficiency of commercial refrigeration equipment
 - Transactive control (electrical load shifting) for refrigeration equipment (e.g., ice makers) to correspond to renewable power generation. Could thermal storage fit into this?
 - Living with a 150-gram charge limit on Hydrocarbons
 - Efficient fan operation in condenser applications
 - Solar powered WICF
 - Other ideas?
- **Research Subcommittee (Shitong Zha)**
 - **Meeting:** Sunday, 2 February 2020, 6:00pm – 6:45pm, Hilton Orlando, L, Lake Nona A
 - **WS 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
 - Contact: MacGowens, Lauren <LMacGowens@ahrinet.org>, Detlef Westphalen
 - Draft sent to TC 10.7 on June 12th
 - Status: Submitted to RAC
 - **RTAR 1876:** Optimizing Air Curtains and the effect on the infiltration load of Refrigerated Display Cases with Glass Doors
 - Contact: Mike Chieffo <Mike.Chieffo@zero-zone.com>; Carl Roberts <Carl.Roberts@zero-zone.com>
 - Resubmitted to Dr. Khalifa (RL) in Dec. 2018
 - Action: Accepted and waiting for a work statement
 - **RTAR proposal from TC 4.1:** Heat gain from self-contained refrigeration equipment
 - Summary: This research project will measure heat gain loads of popular commercial self-contained refrigeration equipment. These loads will be published in the ASHRAE handbooks and will be used to perform internal heat gain calculations for commercial buildings that include food-service facilities. This published data will allow designers to size HVAC systems correctly.
 - Action: TC 4.1 is asking 10.7 if it will cosponsor this RTAR.
 - **Previous research ideas:**
 - 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.
 - Transactive control (load shifting) for refrigeration equipment (e.g., ice makers) to correspond to renewable power generation. TC 10.5, 10.6, and 10.1 may be interested in co-sponsoring.
 - Other Ideas?

- **Handbook Subcommittee (Dave Demma)**
 - **Meeting:** Sunday, 2 February 2020, 6:45pm – 7:15pm, Hilton Orlando, L, Lake Nona A
 - Refrigeration, Chapter 15 – Retail Food Store Refrigeration and Equipment
 - Refrigeration, Chapter 16 – Food Service and General Commercial Refrigeration Equipment
 - **Ideas for next version:**
 - Use of hydrocarbons in commercial refrigeration
 - Heat gain loads for typical types of self-contained equipment
 - Standard method of rating capacity of evaporators and condensers? (AHRI 1250)
- **Standards Subcommittee (Jon Murray)**
 - TC10.7 is the Cognizant TC for the following standards:
 - Standard 18-2008, MOT for Rating Drinking-Water Coolers with Self-Contained Mechanical Refrigeration
 - Standard 29-2015, MOT for Automatic Ice Makers
 - Standard 32.1-2017, MOT for Rating Vending Machines for Bottled, Canned and Other Sealed Beverages
 - Standard 32.2-2018, MOT for Rating Premix and Postmix Beverage Dispensing Equipment
 - Standard 72-2018, MOT for Open and Closed Commercial Refrigerators and Freezers
 - Standard 210, MOT for Rating Commercial Walk-in Cooler and Freezer Equipment
 - Standard 220, MOT for Rating Small Commercial Blast Chillers, Chiller-Freezers, and Freezers
 - **Action on 32.1:** Revise, Withdraw, Reaffirm?
 - **SSPC 72 Meeting:** Sunday, 2 February 2020, 1:00pm – 5:00pm, Hilton Orlando, L, Lake Highland B (Jon Murray)
 - **SPC 210 Meeting:** Monday, 3 February 2020, 8:00am – 12:00pm, Hilton Orlando, L, Champions Gate (Lauren MacGowens)
 - **SPC 220 Meeting:** Monday, 3 February 2020, 4:30pm – 6:00pm, Hilton Orlando, L, Bay Hill (Dennis Livchak)
- **Website (Kyle Larson)**
 - TC10.7 Website: <https://tc1007.ashraetcs.org/>

9. New Business

10. Adjournment

Upcoming ASHRAE Conferences:

Summer 2020 Conference:	Jun 27 – Jul 1, Austin, TX
Winter 2021 Conference:	Jan 23 – 27, 2021, Chicago, IL
Summer 2021 Conference:	Jun 26 – 30, 2021, Phoenix, AZ
Winter 2022 Conference:	Jan 29 – Feb 2, 2022, Las Vegas, NV
Summer 2022 Conference:	Jun 25 – 29, 2022, Toronto, ON