

ASHRAE TC 10.8
Refrigeration Load Calculations
2015 Winter Meeting Minutes

3:00 P.M.
Sunday, January 25, 2015
Palmer House Hilton, Clark 9
Chicago, IL

ACTION ITEMS FROM CHICAGO (WINTER) 2015 MEETING:

A.	Entire TC	Review Load Calculations chapter.	Submit comments prior to June Conference
B.	Todd Jekel, Dan Dettmers	See if Jake (intern) can handle the metric conversion of the new example in Chapter 24.	
C.	Todd Jekel	Review with 1.8 the status of the research project they want 10.3 to co-sponsor and see how this may impact 1433.	
D.	Doug Scott	Continue development of 1434 – doorway infiltration. Review with TC10.5 for co-sponsor.	
E.	Entire TC	Continue reviewing and refining new RTAR ideas.	
F.	Dan Dettmers	Continue with TC 10.8 Program development for Atlanta.	

Meeting called to order at 3:02 by Don Fenton

1. Introduction of Members and Guests

Quorum established: Todd Jekel, Richard Love, Doug Scott, Tom Wolgamot, Dr. Sharif – all voting members are present.

Don asked that if anyone is interested in being a corresponding member, to please let him know. If your ASHRAE member number is available, that expedites the process.

Dr Apichit Lumiertpongpana has agreed to be a voting member. He will be attending the next several meetings. He will qualify as an international non-quorum VM.

2. Meeting Minutes

- A. Don specifically pointed out the action items on the meeting minutes as a tool to help the committee continue their progress.

- B. Todd motioned to approve the minutes as written. Doug seconded. Minutes were approved as submitted.

3. Section Head Meeting Report

Don reminded everyone of the Code of Ethics. The Hightower award was given to John Carter due to his TC4.3 activities. Dr. Walker was given an ASHRAE Research Award. Don discussed that CEC is trying to get refrigeration more incorporated and address the difficulties we have had in getting programs approved. It was pointed out by several committee members that asking speakers to pay registration fees can hamper the ability to bring in speakers that are pertinent to the program. Don closed the Section Head Report by noting that if having a quorum is a problem, then there is an option for phone conferencing. This would require advance notice so the conference room has the proper AV equipment.

4. Liaison Reports

A. Research – John Shonder

John did not have any research issues for 10.8. Everything is current. John relayed that at the RAC meeting, only 4 RTARs were reviewed and 8 WS. This is very low. Some committees are skipping the RTAR step and going right to WS. RAC frowns upon this practice and discourages it. Todd asked John if 1.8 generated an RTAR that we were to co-sponsor. John indicated nothing was submitted.

B. Handbook –

Between now & June we need to do a review of the Load Calculations chapter. We have 3 or 4 years to get it done, but would like to get it started.

4. Committee Reports:

A. Handbook – Todd Jekel

The Load Calculations Chapter was sent out. Todd asked that everyone takes time to review it. Dan offered to review the first paragraph. It was discussed that we want to upgrade some of the calculations, and perhaps incorporate Doug Reindl's calculation from the Ice Cream presentation this morning. Don re-iterated that we should not neglect this. Action Item: Come to the next meeting with comments. The ball on getting the SI conversion of Bob's example has been dropped. The Intern at U of Wisconsin possibly started this. Action Item: Confirm status and verify who can undertake. Bill Kumpf indicated he could possibly take this on. It needs to be clarified if a hard or soft conversion should be done (just converting numbers, versus doing the calculations in SI). Dr. Love pointed out that raw conversions can look out of place and not indicative of real-world. Doug pointed out that the references and Bibliography of

the chapter are really old. Everyone should look at and see if there are day-to-day references that should be incorporated. All handbook revisions need to go through Todd. Rough drafts of revisions will go out to all members for further review. Once voted on & approved, they will be sent to the Handbook Liason. There was further discussion about reviewing lighting technologies and incorporating load implications as an example. This could include a review of occupancy sensors and how this impacts the loads. The continued reduction in sensible loads messes up the sensible/latent load ratios, and the chapter does not spend much time addressing latent loads. Todd noted that reducing sensible loads without addressing the latent load (leaving door open) is a huge problem.

B. Research – Doug Scott

1433 “Effect of loss of vapor barrier on insulation performance”. Todd will coordinate with TC1.8 to verify status. Action Item: Todd to review with TC1.8

1434 “Doorway Infiltration”. Doug had worked on this a bit. He talked to owners that might be willing to act as a host site, but it was not clear how intrusive this would be & what the owners would get out of it. The owners wanted to know more about what it would look like. Manually-operated doors will be the base case, with high speed roll-ups, strips & bi-parting, and air curtains evaluated. We need to approach 10.5 as a co-sponsor. There was a question asked about manufacturers possibly providing data, but there are huge variations in how doors are used, and manufacturers will utilize the scenario that best fits their solution. Ken asked if we knew that costs were a concern. Working assumption is we need to keep it under \$150k. John said \$200k is a better target, but if it is more then it will go to the board. Ken suggests making research project based around what gives required results and not budget. Action Item: Continue development of 1434.

Don discussed results of Seattle’s Research brainstorming session. He boiled these down and came up with 8 projects for 10.8 to consider. The committee discussed some of the topics, specifically defrost loading, and demand defrost, the potential energy savings and various strategies. Hourly load calculations were also discussed. How can strategies compiled for HVAC hourly loads be used for refrigeration? Look at what they are doing with HVAC and see what might transfer over to refrigeration. Possibly monitor the performance of an existing warehouse: loads, door openings, product loading, lights, and try to correlate to the calculations. John Shonder encouraged getting multiple sponsorships. Action Item: pursue development of new RTARs based upon brainstorming ideas.

C. Standards – N/A

D. Programs – Dan Dettmers

For this meeting (Chicago – January 2015), there is a Brewery tour, and an ice cream seminar. The Ice Cream seminar was very successful.

For Atlanta, GA – June 2015, looking to do a seminar on the International perspective of different food products. Harvest to end shelf food product handling will be reviewed. Motion sensor lighting control and its effect on sensible heat ratio is a viable topic. John Gallaher might know someone (Acuity Brands) that could share information on a local warehouse. February 9 is the seminar proposal deadline. There was discussion about how loads starts from an owner's perspective, OPR, and typically don't get a good definition from the outset. Doug noted that LEED just adopted a guideline for a baseline of refrigerated warehouse, but the baseline number came from HVAC with no justification. This would be a good presentation: how many of the gaps in load calculations come from initial understandings & owners not wanting to take responsibility for decisions. A perennial favorite of seminars is Lessons Learned – a collection of terrible projects. Dan will try to do a mass Section 10 Program Meeting get together for future planning ideas. Action Item: Dan to continue development of programs for June.

E. Webmaster – Ryan Hoest

Web is up to date.

F. Membership – Don Fenton

Roster update is difficult to get correct. This is hard to get done at the ASHRAE level. Don again asked that if anyone wanted to be a CM to let him know.

G. ALI Coordinator – Dan Dettmers

No discussion

5. Old Business

None noted

6. New Business

The next meetings are as follows:

Orlando, FL – January 2016

St. Louis, MO – June 2016

Las Vegas, Jan. 28-Feb. 1, 2017

7. Announcements

The next meeting will be in Atlanta, GA; 3:00 PM on June 28, 2015.

8. Adjournment

Todd motioned for adjournment. Dan seconded. Meeting was adjourned at 4:47PM.

Jan. 25, 2015

TC 10.8 (Chicago Meeting)

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