

Minutes of ASHRAE Technical Committee 10.8 (Unapproved)
Refrigeration Load Calculations
Denver, CO Meeting
June 23, 2013

- A. ACTION ITEM (all members): Please review the ASHRAE awards available on ASHRAE's website and see if there is someone you would like to nominate.
- B. ACTION ITEM (all members): Review your bio on ASHRAE's website and make any appropriate modifications.
- C. ACTION ITEM (Don Fenton): Submit final handbook chapter revisions to TC by end of August for electronic ballot and submit to ASHRAE as appropriate.
- D. ACTION ITEM (Doug Scott): Determine status of 1434 WS.
- E. ACTION ITEM (Doug Scott): Rank possible Research ideas topics based on people's input.
- F. ACTION ITEM (Dan Dettmers): Continue with TC 10.8 Program development.

- 1) Call to order by Don Fenton at 3:00 PM.
- 2) Introduction at 3:03 PM.
 - a. VMs present: Don Fenton, Todd Jekel, S.A. Sherif, DJ Mody. Quorum established.
 - b. VMs not present: Ryan Hoest, Richard Love (not present, but Int'l).
 - c. Attendee list is attached below.
- 3) Minutes from previous meeting were approved unanimously by those present.
- 4) Section Head Report, Don Fenton**
 - a. ASHRAE is beginning to provide access to meetings electronically. Will be able to add people remotely. Also could have more international participation.
 - b. There are a number of awards that ASHRAE offers: distinguished service, teaching, refrigeration work, etc.
ACTION ITEM (all members): Please review these on ASHRAE's website and see if there is someone you would like to nominate.
 - c. Handbook chapters are due today.
 - d. Transition to electronic media is underway. In the future, Handbooks will be primarily available electronically. Eventually will need to pay extra for a hard copy.
 - e. Webmasters will need to be well-trained.
 - f. There was a suggestion of putting on a special session for writing of RTARs to help get these generated.
 - g. ASHRAE maintains a biographical sketch of everyone.
ACTION ITEM (all members): Review your bio and make any appropriate modifications.
- 5) Handbook – Don Fenton**
 - a. There were 2 major revisions for TC 10.8's refrigeration loads handbook chapter: Don Cleland's research results in the continuation of Example 2, and Bob Burdick's added Example 3. Bill Kumpf checked and made revisions to Example 3. Don Fenton completed checks and refined Example 3. Don Fenton wants people's input & voting on the additions. This will be scheduled in the future.

- b. There was a discussion on safety factor used. Different values are used in the examples. There was a suggestion to modify the statement about generally applying a 10% safety factor to something that is more descriptive and says when a larger factor may be more appropriate. 20% safety factor is used in the new sample. It was also discussed that it would be more appropriate to apply a safety factor to each load component versus applying a safety factor to the total. Doug Scott proposed specific wording to be made to the safety factor. Consensus was to adopt.
- c. Todd Jekel expressed a concern about no latent load in the dock calculations, in fact often see re-heat applied if need to maintain certain humidity. It was decided to focus on simplicity and include a comment that one may need to include latent load considerations when reviewing the equipment requirements. Todd Jekel wrote a paragraph for insertion.
- d. Todd Jekel also pointed out there were lots of numbers in the sample without reference to where they came from. Don Fenton agreed it should be clearer where the numbers came from.
- e. Don Fenton would like to get the Chapter out for electronic review by the end of August.
ACTION ITEM (Don Fenton): Submit final handbook chapter revisions to TC by end of August for electronic ballot and submit to ASHRAE as appropriate.
- f. There was a discussion about shaded pole motors, motor heat gain and the minimum insulation values recommended. Other ASHRAE chapters recommend insulation values also. This needs to be coordinated and reviewed. Don asked if shaded poles were used in other parts of the world. Nick Shockley also pointed out this information would be good for remodels. Doug suggested developing a paragraph on how the motor heat is determined. There was also discussion about just shortening the table to not include the fractional horsepower motors.
ACTION ITEM (Bill Kumpf): Write paragraph regarding shaded pole motors, motor heat gain, and minimum insulation values.
- g. Doug Scott pointed out the Epact efficiencies are way off, and can apply far greater horsepower than rating due to temperature.
- h. Regarding Example 3, it was mentioned there is no description of how infiltration through the dock was arrived at and if it would be reasonable. There is also no description on where the lighting density comes from.

6) Research – Doug Scott

- a. 1433 – RTAR *“Effect of loss of vapor barrier on insulation performance”*. This is ready to be turned into a work statement. Todd Jekel was going to review with Andre. It was clarified this is not piping insulation. A question was asked about including Forklift damage, and if it makes sense to repair. This research idea was started by Don Cleland. Dan Dettmers will send to Doug Scott.
ACTION ITEM (Doug Scott): Doug will review, summarize, and make a recommendation on how to proceed concerning RTAR 1433.
- b. In TC 10.3 there is a dispute about the insulation values which are available. This could be a research project on actual values available.

- c. 1434 WS –“Refrigerated Facilities Doorway Infiltration Air Energy Reduction” TC 10.5 is sponsor, 10.8 is co-sponsor. Doug Scott thought it is way too complicated. Doug Scott check on the status at the Research breakfast. Ryan Hoest was working on updating Work Statement 1434.

ACTION ITEM (Doug Scott): Determine status of 1434 WS.

- d. Doug reviewed possible Research ideas:
 - i. What do conveyors do? How do they operate, and is it that big of a load?
 - ii. Process loads?
 - iii. VFD impact on motors and systems
 - iv. Cooking loads
 - v. Equipment loads
 - vi. Infiltration and ventilation loads are major items
 - vii. Doug will send out a list of possible topics and have people rank the items in terms of importance

ACTION ITEM (Doug Scott): Rrank possible Research ideas topics based on people’s input.

7) Program – Dan Dettmers

- a. Dan Dettmers wants to put together a lighting study for Seattle meeting.
- b. It was discussed that lots of people are interested in attending basic classes on how to do calculations.
- c. A possible idea for a program was discussed: *Panel discussion: “Loads in a Refrigerated Structure”* infiltration/ventilation (Todd Jekel), equipment/lighting/product (Doug Scott), transmission (Dan Dettmers)

ACTION ITEM (Dan Dettmers): Continue with TC 10.8 Program development.

8) Webmaster – Ryan Hoest

- a. Web is up to date.

9) Membership

- a. Nick Shockley to be added as corresponding member.
- b. Rest stand as current.

10) AIL Coordinator - Dan Dettmers

- a. Program ideas passed off to 10.7 committee.

11) New Business

- a. Standard 90.1.
- b. Next Meeting in New York.

- 12) Meeting was motioned & seconded for adjournment at 4:48 PM.

