

Final Minutes for Technical Committee 10.5
2016 ASHRAE Annual Meeting, St. Louis
Tuesday, June 28th - 3:30 to 6:00 PM

1. Call to Order 3:45 pm
2. Establish Quorum (8 total incl VNQ, 5 required as minimum)

a) Voting members

Smith, Eric	Chair
Fisher, Alan	Vice Chair
Greg Scrivener	Secretary
Young, Jim	Member
Borrowman, Wayne	Handbook Subcommittee Chair
Scott, Doug	Research Subcommittee Chair
Love, Richard (VNQ)	Program Subcommittee Chair
Eric Ramon	Member

b) Other positions (CM)

3. Greet Guests/Visitors – Eric extends a greeting to all our guests.

Name	Affiliation	Member ¹
Eric Smith	IIAR	VM
Richard Love	Massey University	CM
Dan Dettmers	University of Wisconsin	VM
Dave Rule	IIAR	Guest
Daryl Stauffer	Johnson Controls	Guest
Dave Rule	IIAR	Guest
Don Fenton	Kansas State University	CM
Doug Scott	Vacom	VM
Supinya Dharhar	Hitachi Consulting Energy Service	Guest
Jim Tauby	Section 10 head	Guest
Greg Scrivener	Cold Dynamics	VM
John Davis	IRC	CM
Pranav Godbole	Vacom	Guest
Wayne Borrowman	Cimco Refrigeration	VM
Ramin Faramarzi	NREL	Guest
Scott Mitchell	SCE	CM

4. Approval of Minutes from 2016 Winter Meeting, Orlando

Motion to approve: Greg Scrivener motioned, Doug Scott 2nd the motion.
Vote count: 4/0/1

5. Announcements/Additions to the Agenda

None mentioned

6. Reports & Discussions

a) Reports from Liaisons

i. Research Liaison

1. Tech council wants more applied research and is possibly willing to tap into reserve funds.
2. Include vote including explanations for no and abstentions. Complete forms when completing RTARs and Work statements include milestones.

ii. Refrigeration Committee – Dave Rule

ASHRAE is now funding a \$5.2 million research project on A2L refrigerants along with AHRI and DOE.

The ASHRAE Ammonia Position Paper was submitted and there are a couple of REF committee members making changes to make the scope more international.

There was discussion on the refrigeration track that is coming up in Long Beach.

Karim Amrane from AHRI is the new chair.

iii. Handbook Liaison – (Don Fenton)

Don Fenton has achieved through WFLO to get most of the chapters reviewed. It is up to Wayne Borrowman the program subcommittee chair to review these in conjunction with the TC and find reviewers for the rest. Don recommends having at least half of them ready to vote in Las Vegas.

Action Item: Don Fenton is going to get in touch with Wayne Borrowman to get him to get going on it.

Training for the handbook editing program is available via an online portal. Mark Owen and Heather Kennedy are staff persons for the handbook. Don will distribute the password, but it was announced as: User- hndbkhero; Password: hvacrev;

iv. Global Cold Chain Alliance – Ron Vallort

Ron sent an email. Dan included on webpage. Latest report attached herewith.

Action Item: Eric is going to get in touch with Cory at GCCA and see where things are at with the energy benchmarking work. He will also be attending the assembly of committee meetings and will let them know that TC 10.5 stands willing to help.

v. Section 10 Head – Jim Tauby

Publications division is looking for new standards, manuals, articles, etc. to be published. If we have any ideas, it is worth bringing up.

CEC – there is a refrigeration track in Long Beach. It would be good to put in as much as possible. Conference Papers are required to be submitted by Aug. 29, 2016. Presentations would be due on June 2, 2017. Seminars due February 6, 2016. For Las Vegas there is time to submit for seminars, workshops, etc. Proposals are due August 8th. Presentations due January 2nd.

Don Fenton suggested that the handbook is a publication and that this committee could use help from them with funding and support getting some hand book chapters reviewed and rewritten.

vi. MTG: Alternative Low GWP Refrigerants - Doug Scott

Meeting is tomorrow and Doug Scott will attend. He has not seen anything yet that is of significant interest. The focus of this group appears to be the application of 2L refrigerants. Although TC10.5 is broadly associated with natural

refrigerants, it must also be cognizant of new refrigerant applications.

vii. Refrigeration Commissioning Guide

Doug Scott introduced the possibility that there could be an opportunity to use the research money available to disseminate results (as was discussed by the RAC liaison) for training, such as webinars, on the refrigeration commissioning document. **Action item:** Doug Scott is going to research this.

viii. Chair report on Section 10 Breakfast Meeting

Eric Smith has a copy of the handout that he will send out.

ASHRAE would like subcommittee meetings held by web conference prior to the conference to save money on rooms.

Tech and conference papers get priority with programs.

Eric Smith will email corresponding members and try to clean the list up as much as possible.

b) Programs – Richard Love

- We cosponsored with a program with 10.1 that was approved and presented at this meeting: Ammonia and CO2 Advances in Application.
- Sustainability guide. Commissioning – How to use it – etc. Doug Scott and Richard Love will work on getting this submitted by August 8th. Doug Scott will talk with 10.1 and the refrigeration committee. Track will probably be energy efficiency in industrial buildings.
- Water-Energy Nexus. Glen Comisac at Guntner and Gordon Struder at Evapco were mentioned as possible speakers.

c) Research – Doug Scott

- Work Statement 1434 – There is interest from US Cold Storage and Lineage Logistics as long as we focus on freezers. They want to go through the work statement face

to face. Doug is going to try to get this done by the submission date in October. TC 10.8 is the sponsor; TC 10.5 is a co-sponsoring TC.

New ideas:

- Dock door infiltration operation and maintenance.

Age, truck dimensions, wear, company policies, human factors, etc. Do a field survey and try to draw some rough conclusions on why there is such diversity in operations.

Don Fenton mentioned Hendricks at Georgia Tech did look at some of this so it would be worth looking in to as background literature.

- Air circulation efficacy – discussed what could be done to get usable results. Don Fenton discussed that it would be possible to get a CFD model done and verified to help determine parameters. Could talk to software companies so that work statement is written in a way that makes this a possibility. Eric Smith mentioned that IIAR has a proposal about placement of ammonia detectors so there is some potential overlap here. Bill Greulich has expressed interest in this.

d) Handbook

Greg Scrivener and Eric Smith will help Wayne do some of the updates. Doug Scott mentioned that Jim Caylor would likely volunteer as well.

e) Update on website

The new websites are up and running and look much better. Dan Dettmers has updated the website for 10.5.

f) Membership Updates

Eric Smith will request an extension as voting member for one more year considering his position as chair.

7. New Business

TC 10.5 received a handbook chapter comment:

Dear TC 10.5 Chair, Please see the comment/suggestion below from a Handbook reader. I forward it for your consideration in revising the chapter(s) for the 2018 *ASHRAE Handbook—Refrigeration*.

I did find at least partial access to Bennett et al. (1965) (the USDA source mentioned below) here: <http://babel.hathitrust.org/cgi/pt?id=uiug.30112019261715;view=1up;seq=1>

Thank you for your consideration of this comment, and for your and the TC's ongoing work on behalf of ASHRAE, the Handbook, and its readers.

Sincerely,

Mark Owen

03.18.2016

Darcy Gorman

Title: Refrigeration - 2014

Comment:

Chapter 20 and 28 both mention and use the term "mass average temperature", but there is no definition or discussion of how it is measured or determined. Of course there is a citation for a 1965 USDA AIB, but it doesn't seem that this is readily accessible; I would love to be corrected. I would like to suggest that a brief discussion of this term could be in the upcoming revision.

The following was discussed about the comment:

Dan Dettmers is going to look and see if the definition used to exist in old handbook chapters and will decide if it need attention.

Official Response to Commenter: We are researching this comment to determine the best course of action.

Action item: Eric Smith will respond with the official response to Mark Owen

Post meeting update: A response was developed and some changes to the handbook have been proposed by Dan and Richard. Mark Owen was informed

and contacted the inquirer. Thanks to Dan and Richard are extended for their efforts.

8. Next meeting in Las Vegas January 2017

9. Motion to adjourn: Eric Smith moved, Richard Love 2nd, unanimous approval. Meeting adjourned at 6:10 pm.