



ASHRAE American Society of Heating, Refrigerating and Air-Conditioning Engineers Inc.

1791 Tullie Circle, NE • Atlanta, Georgia 30329-2305 ☎ 404-636-8400 • Fax 404-321-5478

TC/TG/TRG MINUTES COVER SHEET

TC/TG/TRG NO.: TC 9.01 ISSUE DATE: January 24, 2014

TC/TG/TRG TITLE: Large Building Air-Conditioning Systems

DATE OF MEETING: January 21, 2014 LOCATION: New York, NY

MEMBERS PRESENT	TERM END	MEMBERS ABSENT	TERM END	ADDITIONAL ATTENDANCE
John L Kuempel Jr, Chair/Program Sub-C Chair Steve Nicklas, Secretary/Webmaster Bill Klock, Research Sub-C Chair Charlie Henck, Standards Sub-C Chair Steve Duda, Honors & Awards Sub-C Chair Phil Trafton, Non-Quorum Member Alonzo Blalock R.Lee Millies, Jr. John Vucci, Member Lynn Werman, Membership Sub-C Chair	6/30/2014	Quinn Hart, Member Gene R Strehlow ALI/PDC Coordinator Jay Eldridge, Member Ken Gill, Member Quinn Hart, Member Jeff Traylor, Member	6/30/2013	<u>Corresponding Members:</u> Mark Fly Doug Cochrane Philip Johnson <u>Provisional</u> <u>Corresponding Members:</u> Rachel Romero <u>Liaisons / Staff / Ex-</u> <u>Officio Members:</u> Not Present <u>Guests:</u> Xudang Wang Doug Tucker Mike Patterson John Molner William Stewart Dermot McMorro

DISTRIBUTION

ALL MEMBERS OF TC/TG/TRG

TAC COMMITTEE CHAIR: Walter Grondzik (NP)

TAC SECTION HEAD: Thomas M Lawrence (NP)

LIAISONS:

Handbook: Nicolas Lemire (NP) & Paul Lindahl (NP)
ALI/Professional Development Liaison: Hugh McMillan (NP)
Staff Liaison/Research/Technical Services: Michael Vaughn (NP)

Research Liaison: Kishor Khankari (NP)
CTTC Liaison: Jay Cederberg (NP)
Standards Liaison: Malcolm Knight (NP)

** NP Not Present

NOTICE: These Draft Minutes have not been approved and are not the official, approved record until approved by this committee.
January 2014



ASHRAE American Society of Heating, Refrigerating and Air-Conditioning Engineers Inc.

1791 Tullie Circle, NE • Atlanta, Georgia 30329-2305 ☎ 404-636-8400 • Fax 404-321-5478

ASHRAE TC/TG/TRG ACTIVITIES SHEET

ISSUE DATE: May 23, 2013

TC/TG/TRG NO.: T.C. 9.01 TC/TG/TRG TITLE: Large Building Air-Conditioning Systems

CHAIR: John Kuempel Jr.

VICE-CHAIR: Howie McKew

SECRETARY: Steve Nicklas

TC/TG/TRG MEETING SCHEDULE

Location - Past 48 Months	Date	Location - Planned Next 36 Months	Date
Albuquerque, NM	6.29.2010	Seattle, WA	6.28.2014
Las Vegas, NV	2.01.2011	Chicago, IL	1.24.2015
Montreal, PQ (Canada)	6.28.2011	Atlanta, GA	6.27.2015
Chicago, IL	1.24.2012	Orlando, FL	1.23.2016
San Antonio, TX	6.23.2012	St. Louis, MO	6.25.2016
Dallas, TX	1.26.2013		
Denver, CO	6.22.2013		
New York, NY	1.18.2014		

TC/TG/TRG SUBCOMMITTEES

Function	Subcommittee Chair
ALI/PDC Coordinator	Gene Strehlow
Handbook	Howard McKew
Honors and Awards	Steve Duda
Membership	Lynn Werman
Programs	John Kuempel
Publications	Warren Hahn
Standards	Charlie Henck
Research	William Klock
Standards Issues	No Assignment
Webmaster	Steve Nicklas

RESEARCH PROJECTS – CURRENT

Project Title	Contractor	Monitoring Comm. Chairperson	Report Made At Mtg.
<i>RP 1448: Ventilation Requirements for Refrigeration Machinery Rooms</i>			

LONG RANGE RESEARCH PLAN

Rank	Title	W/S Written	Approved	To RAC
	<i>RTAR 1684: Dispersion of Refrigerant to Connecting Spaces via Transfer</i>	Under development		

NOTICE: These Draft Minutes have not been approved and are not the official, approved record until approved by this committee.
January 2014



ASHRAE American Society of Heating, Refrigerating and Air-Conditioning Engineers Inc.

1791 Tullie Circle, NE • Atlanta, Georgia 30329-2305 ☎ 404-636-8400 • Fax 404-321-5478

Openings			
----------	--	--	--

ASHRAE TC/TG/TRG ACTIVITIES SHEET (continued)

HANDBOOK RESPONSIBILITIES				
Year & Volume	Chapter Title	Chapter No	Reviser & Mentor-Reviser	Reviewer
2016 Systems & Equip	HVAC System Analysis and Selection	1	Mark Fly/Kasey Worthington	/ /
2016 Systems & Equip	Decentralized Cooling and Heating	2	Gene Strehlow/Steve Nicklas	John V/ /
2016 Systems & Equip	Centralized Cooling and Heating	3	Steve Duda/ Dan Leath	/ /
2016 Systems & Equip	Air-Handling and Distribution	4	Lynn Werman/ Rachel R	Andrew W/ /
2016 Systems & Equip	In-Room Units and Distribution	5	Bill Klock/Robby Tefft	/ /
STANDARDS ACTIVITIES - List and Describe Subjects				
STD 15-2004 <i>Safety Standard for Refrigeration Systems</i> – Continuous Maintenance – TC 9.01 is cognizant, Steve Duda is liaison				
Guideline 0-2005 <i>The Commissioning Process</i> – TC 9.01 is co-cognizant				
Guideline 16-2003 <i>Selecting Outdoor, Return, and Relief Dampers for Air-Side Economizer Systems</i> – TC 9.01 is cognizant				
Guideline 22-2008 <i>Instrumentation for Monitoring Central Chilled-Water Plant Efficiency</i> – TC 9.01 is cognizant				
TECHNICAL PAPERS from Sponsored Research – Title, when presented (past 3 yrs. present & planned)				
1. None.				
TC/TG SPONSORED TRANSACTION SESSIONS – Title, when presented (past 3 yrs. present & planned) & Chair				
1. Conference Paper – Rehab for DDC at Corporate National Training Center – Three Years of Therapy - Winter, 2011 – Las Vegas, Blalock				
2. Conference Paper - Application of ASHRAE Standard 15-2010 with Respect to Multi-Evaporator Split Air-Conditioning Systems – Summer 2011 – Montreal, Duda				
TC SPONSORED SEMINARS – Title, when presented (past 3 years, present, & planned) & Chair; Speaker, Speaker, Speaker				
1. <i>HVAC Security- Less we forget</i> (2011 Winter-Las Vegas, NV) McKew; Cogley, Dobbs, & Campbell				
2. <i>Case Studies: New Equipment & Applications to Improve Energy Efficiency</i> (2012 Winter-Chicago, IL) Cramm; Kuempel, McKew, & Schwedler				
3. <i>When Integrated Controls Are Not Integrated</i> (2012 Summer-San Antonio, TX) Cramm; Rimmer, McKew, & Conlan				
4. <i>Smart Methods to Prevent Electrical Harmonics Problems in Buildings</i> (2013 Winter-Dallas, TX)				
5. <i>Hydraulic Modeling</i> (2013 Winter-Dallas, TX) Klock; Simmons & Stinson				
6. <i>Sky High Efficient Case Studies</i> (2013 Summer-Denver, CO) Cramm, Madigan, Duda, Kuempel				
7. <i>How to certify an Energy Star Building</i> (planned 2104 Winter-New York, NY) Eldridge, Kuempel, Newell				
TC/TG SPONSORED FORUMS				
1. None.				
JOURNAL PUBLICATIONS				
1. <i>Engineer's Notebook: Lessons From Energy Audits</i> (vol. 55, no. 11, November 2013) Stephen W. Duda				

NOTICE: These Draft Minutes have not been approved and are not the official, approved record until approved by this committee.
January 2014



ASHRAE American Society of Heating, Refrigerating and Air-Conditioning Engineers Inc.

1791 Tullie Circle, NE • Atlanta, Georgia 30329-2305 ☎404-636-8400 • Fax 404-321-5478

TC 9.01 Large Building Air-Conditioning Systems

Meeting Minutes

Meeting Date: January 21, 2014

New York, NY

I. Call to Order

- a) Chair John Kuempel called the meeting to order at 1:00 PM local time,

II. Introduction of Members And Guests

- a) Self-introductions of members and guests were made around the table as the attendance roster was circulated. Chair welcomed all members and visitors. A quorum was not achieved.

Voting Members:	6 Present 6 Absent, Quorum not achieved
Voting Non-Quorum Members:	1 Present 0 Absent
Corresponding Members:	5 Present
Society Liaisons:	0 Present
Staff Liaisons:	0 Present
Guests:	3 Present

Note: Voting Non-Quorum members are voting members if present, but do not count against quorum if absent.)

III. Minutes from Denver, CO Annual Meeting 2013

- a) Minutes reviewed and liaison changes noted. *No vote*

IV. Agenda Comments / Updates (Kuempel)

- a) No Additions to Agenda requested.

V. Chair's Comments and Section 9 Report (Kuempel)

- a) Steve Duda was named an ASHRAE Fellow (with thanks to Charlie Henck)
- b) There is a new TC competition with the goal of making the TCs more electronically savvy
- c) YEA Event attended by Mark Fly. All TC members are invited. It was well attended with good interaction between the YEA members and the older ASHRAE members.
- d) All members are asked to review the Code of Ethics.
- e) Master Google calendar is available. Steve N. to look into applicability for TC9.01.
- f) There is a MTG for a Hot Climate Design Guide.
- g) CEC is asking members to volunteer to review papers.
- h) Tracks have been set for the upcoming Seattle and Chicago meetings.
- i) Members are encouraged to use the ASHRAE XChange for online discussions on various topics.

NOTICE: These Draft Minutes have not been approved and are not the official, approved record until approved by this committee.
January 2014



ASHRAE American Society of Heating, Refrigerating and Air-Conditioning Engineers Inc.

1791 Tullie Circle, NE • Atlanta, Georgia 30329-2305 ☎404-636-8400 • Fax 404-321-5478

- j) There are options for conference calls for meetings.
- k) TAC had presentation on “talking to your local Chapter” as to what TC’s do
- l) Request that Bio’s be updated on the ASHRAE web site.
- m) Some TCs are letting members attend remotely via the internet.

VI. ASHRAE Liaison Reports

- a) None Present

TC 9.01 Subcommittee Reports

- a) Membership (Keumpel):
 - J. Traylor to move to Member Non-Quorum due to his current work location
- b) Handbook (McKew): *No report*
- c) Standards (Henck):
 - Guideline 16 was reaffirmed in Dallas
- d) Research (Klock/Duda):
 - Breakfast meeting was very good. It provided good insight into the bidding process for research projects.
 - S. Duda to take over as Research Subcommittee Chair.
 - RP-1448 – “Ventilation Requirement for Refrigerating Machinery Rooms” update was provided by S. Duda. Research is complete. Once analysis is completed it will be incorporated into Standard 15.
 - RTAR-1684 - “Dispersion of Refrigerant Releases to Connecting Spaces via Transfer Openings” update was provided by S. Duda and noted that TC 9.01 is the lead sponsor for the research. This was approved by RAC as an RTAR. S. Duda is assembling a subcommittee with TC9.01, TC8.01 and Standard 15. The work statement is due by the Seattle meeting, and needs to go to RAC by August 15, 2014.
- e) Program (Kuempel):
 - TC should consider proposing a case studies seminar for Seattle. Speakers to be Kuempel, Cramm and Nicklas, Rachael Romero as chair.
 - No programs were approved for the New York meeting.
- f) Professional Development (Henck): NSTR
- g) Honors & Awards (Duda):
 - Steve Duda was named an ASHRAE Fellow.
 - S. Duda is looking for a new Hightower nominee.
 - Honors & Awards report was issued addressing each award, due date, and latest candidates.
- h) Publications (Hahn): Warren not present

NOTICE: These Draft Minutes have not been approved and are not the official, approved record until approved by this committee.
January 2014



ASHRAE American Society of Heating, Refrigerating and Air-Conditioning Engineers Inc.

1791 Tullie Circle, NE • Atlanta, Georgia 30329-2305 ☎404-636-8400 • Fax 404-321-5478

- S. Duda is part of a rotating set of authors for the new Engineer's Notebook column in the ASHRAE Journal.
- i) Website Report (Nicklas):
 - Website was updated with new format.

VII. TC/PC Liaison Reports

- a) TC 1.04 – Control Theory & Application () No Report
- b) TC 1.12 – Moisture Management (H. Bailey) No Report
- c) TC 4.03 – Ventilation & Filtration (S. Duda) TC is research focused, looking at CO₂ based demand controlled ventilation with multizone VAV, and they are finishing a RP on IAQ in retail stores.
- d) TC 5.06 – Control & Smoke (P Trafton) No Report
- e) TC 6.01 – Hydronic and Steam Heating Equipment and Systems (K. Cramm) No Report
- f) TC 7.05 – Smart Building Systems (G. Strehlow) No Report
- g) TC 7.07 - Testing & Balancing (H. Brickman) No Report
- h) TC 7.09 – Building Commissioning (Blalock/Klock) Standard 202 is moving to continuous maintenance. DOE is pushing to create certification for commissioning. An open committee is reviewing the qualifications, which may require re-certification. DOE will require an ANSI approved certification, which puts ASHRAE in a good position. This is currently the hottest topic regarding certifications.
- i) TC 8.07 - Variable Refrigerant Flow (J. Vucci) Refrigerant research addressed by S. Duda earlier. There was a discussion regarding 2L refrigerants and Standard 15. The VRF Design Guide is approximately 18 months away, with a workshop scheduled for Seattle.
- j) TC 9.06 – Healthcare (J. Traylor) No Report
- k) TC 9.08 – Large Building Applications (S. Nicklas) Possible forum to determine any missing applications.
- l) TC 9.09 – Mission Critical Facilities () Discussion on what qualifies as liquid cooling. Starting research on direct contact liquid cooling. Developing a building metric for data centers.
- m) TC 9.10 – Laboratory Systems (K. Cramm) No Report, meets after this meeting
- n) TC 9.12 – Tall Buildings (M. Fly) RP to revise the Tall Building Design Guide.
- o) SSPC 15 Mechanical Refrigeration Safety (S. Duda) TC is looking to rewrite Standard 15 without changing the technical content. This is trying to reorganize 80 years of changes. Reprint scheduled for 2016.
- p) TG 2- HVAC Security (H. McKew) No Report
- q) SPC 188 – Risk Management of Legionella (R. Millies) Discussed the impact on cooling towers and how the standard will apply.

VIII. Old Business

- a) Group should consider having subcommittee meetings via conference calls before the next meeting. The ASHRAE point-person to coordinate conference calls is Mike Vaughn.

NOTICE: These Draft Minutes have not been approved and are not the official, approved record until approved by this committee.
January 2014



ASHRAE American Society of Heating, Refrigerating and Air-Conditioning Engineers Inc.

1791 Tullie Circle, NE • Atlanta, Georgia 30329-2305 ☎ 404-636-8400 • Fax 404-321-5478

- b) Dropbox is available for sharing files.

IX. New Business

- a) Discussion of where district energy and central plants fall, TC 9.01 versus TC 6.01.
- b) Discussion of Energy Star and building benchmarking. How some building owners and engineers are meeting the letter of the requirements, but not the intent.

X. Adjournment

- a) Next Meeting: Tuesday, July 1, 2014 at 1:00 pm PST in Seattle, WA
- b) For Good & Well Being
- c) Meeting adjourned at 3:30 PM.

XI. Attachments:

- a) TC 9.01 Honors & Award Report
- b) ASHRAE Notes

End of Minutes

Respectfully submitted by:

Steve Nicklas, Secretary



ASHRAE American Society of Heating, Refrigerating and Air-Conditioning Engineers Inc.

1791 Tullie Circle, NE • Atlanta, Georgia 30329-2305 ☎ 404-636-8400 • Fax 404-321-5478

SUMMARY OF MOTIONS:

Secretary's Note: All votes recorded herein are formatted as Aye-Nay-Abstain-Chair Not Voting-Absent.

Quorum not achieved, so no motions or voting occurred during this meeting.
