



**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: June. 26, 2016

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

DATE OF MEETING: January 16, 2016 LOCATION: Orlando, FL

MEMBERS PRESENT	TERM END	MEMBERS ABSENT	TERM END	ADDITIONAL ATTENDANCE
John Vucci Chair	2017	Jeff Traylor	2016	<b><u>Corresponding Members:</u></b> Jay Eldridge, Sec./ Webmaster John L Kuempel Jr, Program Sub-C Chair Philip Johnson Mark Pavol Harris Sheinman Dennis Wessel  <b><u>Liaisons / Staff / Ex-Officio Members:</u></b> Krishnan Gowri Section Head  <b><u>Guests:</u></b> Bill Artis
Alonzo Blalock Vice-Chair	2017	Kelley Cramm	2018	
Steve Duda, Research/Honors and Awards Sub-C Chair	2016	Ken Gill	2016	
Charles Henck, Standards Sub-C Chair	2018	John Molinar	2019	
Phil Trafton	2019	Steve Nicklas	2018	
Doug Cochrane	2018			
R.Lee Millies, Jr	2017			
Rachel Romero	2019			
Lynn Werman	2018			

**DISTRIBUTION**

**ALL MEMBERS OF TC/TG/TRG**

**TAC COMMITTEE CHAIR:** Thomas M Lawrence (NP)

**TAC SECTION HEAD:** Dr. Krishnan Gowri (NP)

**LIAISONS:**

- Handbook: Nicolas Lemire (NP)
- ALI/Professional Development Liaison: Cameron Labunski (NP)
- Research: Jeff Gatlin (NP)
- Staff Liaison /Technical Services: Michael Vaughn (NP)

- Research Liaison: Jeff Gatlin (NP)
- CTTC Liaison: Michael Heinrich (NP)
- Standards Liaison: Niles Bidstrup (NP)

\*\* NP Not Present



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**TC 9.01 Large Building Air-Conditioning Systems**  
*Meeting Minutes*

**Meeting Date: January 26, 2016**  
Orlando, FL

**Call to Order**

Chair John Vucci called the meeting to order at 1:00 PM local time,

**Introduction of Members And Guests**

Self-introductions of members and guests were made around the room as the attendance roster was circulated. The Chair welcomed all members and visitors. A quorum was achieved.

Voting Members:	9 Present, 5 Absent, Quorum was achieved
Voting Non-Quorum Members:	1 Present 0 Absent
Corresponding Members:	6 Present
Society Liaisons:	1 Present
Staff Liaisons:	0 Present
Guests:	1 Present

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

**Minutes from Chicago were reviewed**

- a. Atlanta Minutes - Millies made a motion and Duda second – 7/0/0 CNV motion passed
- b. Agenda for the meeting was reviewed on a projection screen

**Agenda Comments / Updates (Vucci)**

No Additions to Agenda requested.

**Chair’s Comments and Section 9 Report (Vucci)**

John Vucci reviewed the TC 9.01 mission statement and the ASHRAE code of Ethics.

**b) TC 9.1 is the cognizant or co-cognizant committee for Guidelines and Standards;**

- a. Guideline 0 – The Commissioning Process
- b. Guideline 16 – Selecting Outdoor, Return and Relief Dampers for Air-side Economizer Systems
- c. Guideline 22 – Instrumentation for monitoring central chilled water Plant Efficiency
- d. Standard 15 – Safety Standard for Refrigeration Systems

**c) TC 9.1 is the responsible committee for the development of Handbook Chapters;**

- a. Chapter 1 – HVAC Analysis & Selection
- b. Chapter 2 – Decentralized Heating & Cooling
- c. Chapter 3 – Central Heating & Cooling Plants



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- d. Chapter 4 - Air Handling & Distribution
- e. Chapter 5 – In Room Terminals

**ASHRAE Liaison Reports**

- d) Section 9 Head (Gowrey) – Christian Gowrey gave a short introduction and update to the TC.
- e) Handbook liaison was at the handbook subcommittee meeting.

**TC 9.01 Subcommittee Reports**

**Program Subcommittee (Kuempel):**

- a. Resubmit seminar for AHRI std1350 for AHUs for St Louis meetings – AHRI groping
- b. Announced that TC 9.01 has a Design-build preso (seminar 57) today after the meeting.
- c. Guideline 22 – for Las Vegas – Co-sponsor with TC 8.2
- d. Al Blalock – Working on a seminar for St Louis – 23 story building
- e. The committee voted to approve the above programs. Motion Millies/Duda – 8/0/CNV

**Handbook Subcommittee (McKew / Sheinman):**

- f. Harris Sheinman presented an overview for handbook chapter revisions to the committee and reviewed the schedule requirements. The presentation slides are attached at the end of the minutes.
- g. McKew already has comments for the five chapters
- h. The Authors and Reviewers Guide (ARG) will be emailed out to the reviewers
- i. Harris does not have all of the chapters yet, but they are not the “official” versions. Harris says that they are close.
- j. The committee approved the following primary and secondary reviewers for the five chapters.

Chapter 1 to 5 for completion publication 2019 – Reviewers Primary / Secondary	
Chapter 1 – HVAC Analysis & Selection	McKew / Trafton / Bill Artis
Chapter 2 – Decentralized Heating & Cooling	Charlie Henk / John Kuempel
Chapter 3 – Central Heating & Cooling Plants	Jay Eldridge / Dennis Wessel
Chapter 4 - Air Handling & Distribution	Steve Duda/ Doug Cochran
Chapter 5 – In Room Terminals	Co-written by FC TC / Phil Trafton

**Standards (Henck):**

- k. Guideline 22 – GPC will move away from Wednesday meeting and should be able to get a two hour slot on Tuesday AM. That time was held by SPC-184

**Research Subcommittee (Duda):** – Report attached

**Membership: No report**



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**Honors and Awards(Duda):**

Steve Duda to receive the George Hightower Award for 2016 at the Orlando 2016 meetings on January 26, 2016 in the TC 4.3 meeting

**Web Master (Eldridge):**

1. New TC 9.1 Website developed (<https://tc0901.ashraetcs.org>) for all TC's by ASHRAE. The new web site was demonstrated.

**Notes from Chair's Breakfast (Vucci):**

- m. Deadlines for St Louis - Seminars Feb 8, uploads June 6
- n. CEC information is available at the CEC webpage

**Old Business:** None

**New Business**

Phil Johnson discussed the ASHRAE 2005 Equipment Service life information. Data is being updated, but certain equipment like chillers are not keeping up. Should training be given, and should more research be done?

- The data can be searched by members. Entering the data can be difficult, and the contractors and owners may not see the benefits of entering the data.
- Machines are often operating beyond typical lives with proper PM.
- Some corresponding members are with the USAF that might be interested.
- <http://xp20.ashrae.org/publicdatabase/>

**TC/PC Liaison Reports**

- TC 4.03 – Ventilation & Filtration (S. Duda)
  - RP 1635- Separation of inlet and discharge openings. It will look at fans, outlets, winds, speeds, etc. in order to give separation distance. It is complete and in the bookstore.
  - RP 1450 Transport of contaminants in garages. In process
- SSPC-202 Commissioning Process for Building & Systems (Blalock) – This committee will be the head for all commissioning guidelines. Sub-committees cover all of the details. DOE has released descriptions for different work activities and certifications for them. They must be certified for work on Federal projects. 2017 is the estimated date for when this will come in to play.
- TC 5.1 – Fans (Eldridge) No major changes
- TC 5.06 – Control & Smoke (P Trafton) No Report
- TC 6.01 – Hydronic and Steam Heating Equipment and Systems (K. Cramm) No report



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- TC 7.01 Integrated Building Design – The TC is looking to see how much this is used. They are putting together a forum to see what the society thinks
- TC 7.09 – Building Commissioning (Blalock) - Nothing different
- TC 8.07 - Variable Refrigerant Flow (J. Vucci) - Discussing the VRF Design Guide with ASHRAE.
- TC 9.06 – Healthcare (J. Traylor) No Report
- TC 9.08 – Large Building Applications (Kuempel)
- TC 9.09 Mission Critical - Mark Pavol - Standard 90.4 is working to define what will a data center includes. It is tough based on the vastly different ASHRAE development times required vs the data center equipment life cycles. They opened up the operating ranges for temperatures and moisture levels. There are some issues with the plug connections.
- TC 9.10 – Laboratory Systems (Kuempel) working to create something similar to the BNBL (design chemical hazard level) They are deciding weather to include the ACHs
- TC 9.12 – Tall Buildings (Wessel) – Design guide is selling well. URP is developing a natural ventilation design guide.
- SSPC 15 Mechanical Refrigeration Safety (Vucci) – Had Addendum D out for public review pertaining to Class 2L refrigerants. A working group is going through public review comments by the St Louis meeting. A complete re-write of the standard is in process to make it easier to use. Expecting to have it for review by the STL meeting.
- SPC 188 Legionella in HVAC (Milles) – Lots of attention because of NYC. They have generated an ALI program that was well attended. Guideline 12 by March for STL approval

For the Good and Well Being...

Adjournment at **3:30 PM**

**I. Attachments:**

- a) TC 9.01 Honors & Award Report
- b) Research Report

**End of Minutes**

Respectfully submitted by:

Jay Eldridge, Secretary