



Program Sub-Committee Meeting Minutes, TC 7.3
Monday June 29, 2015, Atlanta, Georgia
Standards & Program 2:15 to 4:15PM in Room: Pavilion 1 (2nd floor)

Minutes:

1.0 Review & Approve Minutes Chicago

2.0 Announcements

2.1 Programs Sponsored or Co-Sponsored by TC7.3 in Atlanta

- a. Seminar 50: The Report of my Death Was an Exaggeration, Tuesday June 30, **11 a.m.-12:30 p.m.**

3.0 Upcoming Conferences and Due Dates

3.1 Schedule for ASHRAE Annual Winter Conference in Orlando Jan. 23– 27

This is the overall schedule for the 2016 ASHRAE Winter Meeting Conference, Orlando, FL. For specific details and questions regarding these dates, please contact the appropriate Track Chair.

June 4, 2015	Website Opens for Seminar, Forum and Workshop Proposals
July 6, 2015	Final Conference Papers Submitted for Review (Includes Bio, Learning Objectives and Methods of Assessment)
August 3, 2015	Conference Paper accept/reject notifications
August 10, 2015	Seminar, Forum and Workshop Proposals Due
August 21, 2015	Revised Conference Papers/Final Technical Papers Due

August 28, 2015	Conference and Technical Paper Final Accept/Reject Notifications
September 11, 2015	Seminar, Forum, Workshop Accept/Reject Notifications
December 4, 2015	Upload of PPTs Begins
January 4, 2016	All PPTs Due Online
January 20, 2016	Final Day for Commercialism Revision Upload Prior to On-Site
January 23, 2016	Speaker's Lounge Opens

3.2 Orlando Tracks

The Orlando Winter 2016 Conference addresses broad topics in the following tracks:

- Track 1 – Systems & Equipment
- Track 2 – Fundamentals & Applications
- Track 3 – Design Build
- Track 4 – International Design
- Track 5 – Standards, Guidelines and Codes
- Track 6 – Cutting-Edge Technologies
- Track 7 – The Great Debate
- Track 8 – Modern Residential Systems

3.3 Orlando Track Descriptions and Contact info

- **Track 1: Systems and Equipment**

Track Chair: Gary C. Debes

Email: gcdebes@verizon.net

Selection of equipment and systems is paramount to HVAC&R design. Papers and programs in this track will assist designers, engineers, and operators in the design, selection, and operation of HVAC&R systems and equipment.

- **Track 2: Fundamentals and Applications**

Track Chair: Cynthia Moreno

Email: cindym@tmmechanical.com

Fundamentals are the foundation for understanding applications in engineering. Key components of ASHRAE fundamentals include thermodynamics, psychrometrics, fluid and mass flow, IAQ, and building envelope. This track provides opportunities for papers and presentations of varying levels across a large topic base. Concepts, design elements and shared experiences for theoretical and applied concepts of HVAC&R design are included.

- **Track 3: Design Build**

Track Chair: James Liston

Email: jfliston@verizon.net

Joining the contractor and the designer into the same team, the design-build method of project delivery is increasing in percentage of projects awarded in the US. This track explores the challenges and benefits of D-B project delivery. Highlight successful projects; discuss contracts; review management responsibilities; offer alternative design and construction processes. These topics and more will be included.

- **Track 4: International Design**

Track Chair: Leon Shapiro

Email: leoneshapiro@gmail.com

Design for various environmental elements, geography and culture demand that new and innovative strategies be developed. As an international organization, ASHRAE strives to meet the needs of a global membership. HVAC&R systems vary globally and this track provides an opportunity to share innovative and necessary design elements that can be shared internationally.

- **Track 5: Standards, Guidelines and Codes**

Track Chair: Michael Collarin

Email: Michael.Collarin@parsons.com

ASHRAE is known for its standards and design guidelines – and they are constantly evolving with the intent on improving the built environment and its systems. Designers, Contractors, Architects and Owners must be able to keep up with the continuing changes in the current cycle but to also be prepared for the future changes. In addition, there is a large interaction of ASHRAE with the code authorities and government to incorporate these standards and guidelines. The series of sessions in this track highlight the changes to the standards and guidelines, their projected path and optimum design techniques to meet or exceed the standards.

- **Track 6: Cutting-Edge Technologies**

Track Chair: Ann Peratt

Email: agregg.ksu@gmail.com

As energy codes become increasing more stringent, we are challenged to find creative ways to improve efficiencies in the effort to achieve net zero buildings. This track will include the most recent advances in HVAC&R system design, equipment, and construction techniques. Programs included will focus on efficiency, responsible use of resources and energy recovery.

- **Track 7: The Great Debate**

Track Chair: Chuck Curlin

Email: ccurlin@shultzeg.com

Engineers commonly weigh multiple solutions to find the best match for a certain project. Centralized or Decentralized heating and cooling? Chemical or non-chemical water treatment? These sessions and papers will present divergent methods for accomplishing the same task. Hear all sides of the debate and decide for yourself.

- **Track 8: Modern Residential Systems**

Track Chair: Jennifer E. Leach

Email: pennst8jen@yahoo.com

Engineering for residential HVAC and plumbing systems and equipment used to be referred to as catalog engineering: for a two bedroom house choose one from Column A; for a three bedroom house choose one from Column B. Recent years have seen a boom in energy efficient solutions for the savvy, fiscally-conscience home owner. From glazing to water heating to lighting, this track will provide you with the latest advances for the residential market.

3.4 Orlando Papers, Programs and Conference Program Chair

Papers: A call for papers recently closed and some 130 **abstracts** were accepted. Papers are due July 6, 2015. These papers undergo a single-blind review. Reviews are currently being conducted on Technical Papers. These papers undergo a rigorous double-blind review and will be published in ASHRAE Transactions. If you would like to be a reviewer for Technical Papers, please contact Tiffany Cox, Assistant Manager of Conference Programs, at tcox@ashrae.org.

Programs: ASHRAE is currently accepting seminar and forum proposals through a call for programs (non-paper based presentations) is now open through August 10, 2015. For more information or to submit a proposal, go to <http://ashraem.confex.com/ashraem/w16/cfp.cgi>.

Conference Program Chair: Jennifer Leach

Email: pennst8jen@yahoo.com

Staff Support, Assistant Manager of Conference Programs: Tiffany D. Cox

Email: tcox@ashrae.org

Programs are requested for the following program types: Seminars, which include 1-4 presentations on a similar topic; Workshops, which allow equal time for 1-2 presentations and discussion; and Forums, which are discussion-based sessions with no presentations.

3.5 Schedule for ASHRAE Summer 2016 Annual Conference in St. Louis June 25-29

This is the overall publication schedule for the 2016 ASHRAE Annual Conference, St. Louis, MO. For specific details and questions regarding these dates, please contact the appropriate Track Chair.

September 14, 2015 Conference Paper Abstracts Due

September 14, 2015 Technical Papers Due

October 5, 2015 Conference Paper Abstract Accept/Reject Notifications

January 4, 2016 Website Opens for Seminar, Forum and Workshop Proposals

January 4, 2016 Final Conference Papers Submitted for Review (Includes Bio, Learning Objectives and Methods of Assessment)

January 26, 2015	Conference Paper Accept/Revise/Reject Notifications
February 8, 2016	Seminar, Forum and Workshop Proposals Due
February 15, 2016	Revised Conference Papers/Final Technical Papers Due
February 26, 2016	Conference and Technical Paper Final Accept/Reject Notifications
March 23, 2016	Seminar, Forum and Workshop Accept/Reject Notifications

3.6 St. Louis Tracks and Contact info

- **Track 1: Advances in Refrigeration Systems and Alternative Refrigerants**

Track Chair: Frank Schambach

Email: frankschambach@mindspring.com

This track seeks papers and programs that explore the wide range of refrigeration systems under development with special emphasis on the use of alternative refrigerants in vapor compression machines to address environmental concerns.

- **Track 2: Research Summit**

Track Chair: Jeffrey Spitler

Email: spitler@okstate.edu

The fourth annual Research Summit seeks papers that report results on any aspect of ASHRAE-related research including heating, cooling, ventilation, other energy uses in the engineered environment and associated environmental aspects.

- **Track 3: Fundamentals and Applications**

Track Chair: David E. Claridge

Email: dclaridge@tamu.edu

Fundamental information and applications of fundamentals related to all aspects of HVAC&R are welcome. This can range from psychrometric properties and processes to combustion, controls, HVAC system and envelope fundamentals and beyond.

- **Track 4: HVAC Systems and Equipment**

Track Chair: Alan Neely

Email: alan_neely@pghcorning.com

This track will include presentations on best practices to implement traditional, non-traditional, and hybrid approaches to achieve successful HVAC&R systems design. Objectives include high performance systems and equipment, LEED certified designs and sustainable buildings.

- **Track 5: Smart Building Systems/Remote Monitoring and Diagnostics**

Track Chair: Samir Traboulsi

Email: traboulsi.samir@gmail.com

Smart buildings address HVAC&R equipment operation (chiller sequencing, soft start), integration into complete systems and can potentially interface with multiple building complexes and micro grid operation. This track includes papers on advanced communication protocols, system integration, BMS tools, data management and analysis.

- **Track 6: Indoor Environment: Health, Comfort, Productivity**

Track Chair: Dennis Alejandro

Email: denzjac@yahoo.com

Buildings and other enclosed spaces are increasingly required to provide safe, healthy environments in an energy efficient manner. Papers in this track will review the balance between environmental health and energy efficiency in buildings and help define future education, policy and research directions.

- **Track 7: Professional Skills Beyond Engineering**

Track Chair: Rachel Romero

Email: rachel.romero@nrel.gov

This track seeks to ensure professional skills are being developed and maintained beyond engineering essentials. Emphasis will be placed on meeting the professional development and business needs of today and converting them into the building blocks of tomorrow's success.

- **Track 8: Renewable Energy Systems and Net Zero Buildings**

Track Chair: Kevin Gallen

Email: kevin@gallenengineering.com

Wind, hydroelectric and solar are just a few of the alternative and/or renewable energy sources that are being used in HVAC design as we strive for Net-zero and high efficiency buildings. This track will address recent advances in alternative energy systems and equipment and new design strategies for achieving Net-zero buildings.

3.7 St. Louis Papers and Conference Program Chair

Papers: ASHRAE has announced a call for papers for its 2016 Annual Conference, which takes place June 25-29 in St. Louis, MO.

Authors have two options to prepare their papers: Conference Papers: Abstracts are due September 14, 2015. Upon acceptance, papers will be due January 4, 2016. Full Technical Papers, which are due September 14, 2015.

Program: Seminar, Forum and Workshop Proposals Due February 8, 2016

Conference Program Chair: Tom Kuehn

Email: kuehn001@umn.edu

Staff Support, Assistant Manager of Conference Programs: Tiffany D. Cox

Email: tcox@ashrae.org

4.0 Program Planning and Idea Backlog

Program Planning

Number	General Topic/ Program Title	Chair	Program Type:	Notes	Status
S-2013-1	The cost of churn: how to manage facilities staff turnover	Jim Wilson	Seminar	Targeted for Seattle Capitalize on APPA study indicating that O&M budgets have been reduced by as much as 40% in the last several decades. Make a business case for maintenance budgets How to get buy-in for maintenance as an essential component of sustainability.	Open Follow-up Required
S-2013-2	What is the difference between turning over a building and IPD or “Beyond IPD: the next steps”	Sonya Pouncy	Seminar	Targeted for NY “Designing for Maintenance: The Owner’s Perspective” Steven Pataki of Toronto Cricket, Skating & Curling Club “The Ideal Project Turnover Process: Striving for Successful Operation” Gary Bloom of ORNL “How Project Delivery Method Impacts Project turnover & Operations” Matthew Mullen of EMCOR	Complete Seminar #59
S-2013-3	What does OPMP measure?	Bob Baker	Seminar	Targeted for Seattle What does OPMP Measure? Is it measuring the right things? Look at the 4 areas of knowledge measured	Not Accepted

S-2013-4	Role/Importance/ Significance of SOO	Michael Bobker Danny Taasevigen	Seminar	<p>Targeted for Seattle; Possible co-sponsors: TC1.4, TC7.5, TC7.9</p> <p>Controls industry is not great at establishing SOO because they know little of HVAC</p> <p>The role of SOO in the turnover and maintenance of a building</p> <p>The role of SOO in commissioning and documentation</p> <p>Building retuning protocol; POTENTIAL SPEAKER = Ron Underhill of PNNL</p>	Open
S-2013-5	DDC/Modern Analytics	Cedric Trueman Frank Chadpore of TC 1.4 Ron Burnstein & Charity Young of Guideline 13	Seminar	<p>Targeted for Seattle</p> <p>How to use information from DDC to diagnose & manage bldgs?</p> <p>How much data can a DDC system handle?</p> <p>What information is needed to manage a bldg, how much information is needed, how much information is too much?</p>	Open

S-2013-6	Analyzing Bldg Performance to Guide/Direct Maintenance	for Danny Taasevigen		<p>Targeted for Seattle</p> <p>How to use a BAS to analyze bldg data; POTENTIAL SPEAKER= Bill Koran (ECAM author) of PNNL</p> <p>Large bldg (with BAS) retuning with the ECAM Tool ; POTENTIAL SPEAKER= Ron Underhill of PNNL</p> <p>Small bldg retuning / Sensor suitcase automated RCx for small bldgs; POTENTIAL SPEAKER = Jessica Granderson of LBL</p> <p>Optimizing bldg systems with “auto-implement” tools</p>	In Process
S-2013-7	VRF Systems	Matt Mullen Possible co-sponsor TC7.8 (Keith Rhiel)	Seminar	<p>Targeted for Seattle</p> <p>How to optimize a VRF system’s performance</p> <p>What are owner experience with VFR Systems</p> <p>Look at the ASHRAE HQ bldg</p>	Open
S-2013-8		Bob Baker Mike Gallagher Davidge Warfield	Workshop or Seminar	<p>Targeted for Chicago</p> <p>O& M considerations in the design of utility incentive programs</p> <p>Performance based incentive programs with M&V</p>	In Process

Number	General Topic/ Program Title	Chair	Program Type:	Notes		Status
W-2014-2	RP1609 Feedback	Rob Hitchcock with GPC 20 facilitators	Workshop	Target City: Topic 1: Speaker 1:	Seattle The Feedback Loop: ASHRAE Research Project 1609 in the Making Rob Hitchcock with facilitators from GPC 20	In Process
W-2014-3	How do we incorporate energy management into O&M management?	Sonya Pouncy (Michael Khaw)	Seminar	Target City: Topic 1: Speaker 1: Topic 2: Speaker 2: Topic 3: Speaker 3:	Chicago How to incorporate energy management into O&M management? What is the impact of building energy labeling on O&M activities and management?	In Process

W-2014-4	IEQ Metrics	Michael Bobker		Target City: Topic 1: Speaker 1: Topic 2: Speaker 2: Topic 3: Speaker 3:	Author(s) of the Performance Measurement Protocol Member of IFMA Member of BOMA	Open
W-2014-5	Univ. of Cincinnati's "Intelligent Maintenance" and the NSF/university collaboration; consider the difference between industrial and property maintenance	Michael Bobker		Target City: Topic 1: Speaker 1: Topic 2: Speaker 2: Topic 3: Speaker 3:		Open

W-2104-7	What is the contractors' interpretation of Std 180?	Sonya Pouncy (Richard Danks)		Target City: Speaker 1: Speakers 1: Speaker 2: Speakers 2: Speaker 3: Speakers 3:		Open
W-2015-1	Does ASHRAE HQ comply with Std 180 Or Complying with ASHRAE Std 180: How the ASHRAE HQ Does It	B. Baker	Seminar	Target City: Speaker 1: Topic 1: Speaker 2: Topic 2: Speaker 3: Topic 3:	Atlanta Baker HQ Facility Manager	New

W-2015-2	<p>"The Reports of My Death have been Greatly Exaggerated"</p> <p><i>Note this may be the 1st of a "myth buster" series</i></p>	Mina Agarabi	Seminar TC-6.1	<p>Target City:</p> <p>Speaker 1: Topic 1:</p> <p>Speaker 2: Topic 2:</p> <p>Speaker 3: Topic 3:</p>	<p>Orlando</p> <p>Mina Eliminating the premature death of residential boilers</p> <p>Commissioning and Operating a Boiler for Longevity</p>	New
W-2015-4	Resolved: The Quality of Maintenance Has No Impact on Equipment Energy Efficiency	B. Baker	Debate	<p>Target City:</p> <p>Speaker 1: Topic 1:</p> <p>Speaker 2: Topic 2:</p>	<p>Orlando</p> <p>Baker Con (may use Report of Work Order 32 from CA)</p>	New
W-2015-5	What maintenance and operational changes should be done before installing advanced technologies to improve success?	Mina Agarabi	Seminar	<p>Target City:</p> <p>Speaker 1: Topic 1:</p> <p>Speaker 2: Topic 2:</p> <p>Speaker 3: Topic 3:</p>	Orlando	New

W-2015-6	Financing Maintenance	B. Baker Mina Agarabi	Seminar TC 7.8	Target City: Speaker 1: Topic 1: Speaker 2: Topic 2: Speaker 3: Topic 3:	Atlanta Incentive Programs Performance Contracts Establishing a Maintenance Budget	New
W-2015-7	Occidental College on Commissioning	B. Baker	Seminar TC 7.0	Target City: Speaker 1: Topic 1: Speaker 2: Topic 2: Speaker 3: Topic 3:	Orlando Commissioning as a precursor to O&M activities Occidental College case studies	New

W-2105-8	Optimizing Building Operations	Mina M. Bobker	Seminar TC 7.6 TC 7.8	Target City: Speaker 1: Topic 1: Speaker 2: Topic 2: Speaker 3: Topic 3:	Atlanta Evaluating equipment/building performance using utility data Using energy data to diagnose building issues Using bEQ and Other Ratings to Drive Building Operation	New
W-2015-9	Ways That Good Maintenance Saves Money			Target City: Speaker 1: Topic 1: Speaker 2: Topic 2: Speaker 3: Topic 3:	Hartford Steam Boiler either David Tine or Douglas Dobles (see Matt Mullen for additional contact info) Impact of Boiler Maintenance on Insurance Premiums IRI	

Ideas

How to design for zero maintenance	Does IAQ depend on O&M?	What are the best O&M practices for VRF systems?
O&M for YEA	How to operate with no documents?	Narrowing knowledge gap between O&M staff, design
What budgets should I expect?	Owner's perspective on Standard 180	How to improve O&M processes for productivity
How to ensure owners know what they're getting in O&M contracts	How can diagnostics on equipment & systems impact O&M?	Use of info in O&M and need for info hierarchy structure (consistent info across platforms)
Ethics of system replacement recommendations (see related equipment death topic)	Should LEED Certification(NC, EB) carry downstream maintenance criteria & policies? (&Who)	Why you may blow your maintenance budget and what to do?
		What stops management companies from adopting S.180?
Is Commissioning part of Maintenance?	What is O&M impact on LC of residential & health	*Paper options for new chapter*
How to create culture appreciating the entire LC of a building	Why not to leave O&M out of "ESCO" contracts.	Should designers (or others) specify O&M?
Relationship of TOM (tuning, operations, and maintenance) with IAQ, Acoustics, Energy, and Sustaining Features.	How to design for zero maintenance	What are the best O&M practices for VRF systems?
	O&M for YEA	Narrowing knowledge gap between O&M staff, design
The TOM program as part of the OCxP program that is developed for both new and existing facility projects.	What budgets should I expect?	How to improve O&M processes for productivity
	How to ensure owners know what they're getting in O&M contracts	Use of info in O&M and need for info hierarchy structure (consistent info across platforms)
Effective Implementation of COBie (plus other Smart Building programs/tools and HP&IDR) and CMMS programs (success	Ethics of system replacement recommendations (see related equipment death topic)	Why you may blow your maintenance budget and what to do?
		What stops management companies from

with CMMS in both new and existing building) As a comment, it has been difficult to take data from building design and commissioning process and input into the owner's CMMS, COBie does not seem to have reduced the hours of effort, but I "think" we have more accurate TOM program data.		adopting S.180?	
	Is Commissioning part of Maintenance?	*Paper options for new chapter*	
	How to create culture appreciating the entire LC of a building	Should designers (or others) specify O&M?	What is O&M impact on LC of residential & health
		Does IAQ depend on O&M?	
	How to operate with no documents?		
Case studies of successful and useful implementation of Systems Manuals, both printed, semi-electronic, and computer based systems manual that have been used by the TOM staff or service contractor using a hand-held devices (usually smart phone or small computer pad).	Owner's perspective on Standard 180		
	How can diagnostics on equipment & systems impact O&M?		
	Should LEED Certification(NC, EB) carry downstream maintenance criteria & policies? (&Who)		

5.0 Adjourn