

**AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR-CONDITIONING
ENGINEERS, INC.
1791 Tullie Circle, N.E./Atlanta, GA 30329
404-636-8400**

TC/TG/MTG/TRG MINUTES COVER SHEET

(Minutes of all Meetings are to be distributed to all persons listed below within 60 days following the meeting.)

TC/~~TC/MTG/TRG~~ No. 6.1 DATE February 7, 2016

TC/~~TC/MTG/TRG~~ TITLE Hydronic and Steam Equipment and Systems
DATE OF MEETING January 26, 2016 LOCATION Orlando, FL

MEMBERS PRESENT	YEAR APPTD	MEMBERS ABSENT	YEAR APPTD	EX-OFFICIO MEMBERS AND ADDITIONAL ATTENDANCE
Niels Bidstrup (non-quorum)	2015			
Scott Fisher	2015			
Larry Konopacz	2015			
David Lee	2015			
Frank Myers	2013			
Thomas Neill	2014			
Donald Prather	2013			
Rex Scare	2015			
Steve Tredinnick	2015			
Robert Walker	2015			

DISTRIBUTION

All Members of TC/TG/MTG/TRG plus the following:

TAC Section Head:	Mark C. Hegberg
TAC Chair:	Dr. Thomas M. Lawrence
All Committee Liaisons As Shown On TC/TG/MTG/TRG Rosters:	ALI/PDC – Cameron R. Labunski Chapter Tech. Transfer – Maggie Moninski Research – Harvey Sachs Standard – Cyrus H. Nasser 2016 HB Systems - Forrest S. Yount 2017 HB Fundamentals – Van D. Baxter
Staff Liaison	Mike Vaughn

1. Call to Order:

Chair Scare called the meeting to order at 1:01pm. Chair Scare welcomed all in attendance and self-introductions were made. An attendance sheet was passed and signed by those in attendance (attached). A roll call of voting members was conducted and a quorum was present with 10 of the 10 voting members (including the non-quorum voting member) present.

Technical Committee 6.1 is concerned with all aspects of hydronic and steam systems. This includes the application of boilers, chillers, terminal units, and all accessories and controls making up the total system as well as the design of the integrated system. In addition to comfort applications of both heating and cooling, snow melting systems are included. Cooperation with other TCs is recognized in areas such as control, noise and vibration, refrigeration, pumps and hydronic and service water piping.

2. Setting of the Agenda:

The Chair passed out the Agenda. Motion by Frank Myers, second by Steve Tredinnick to approve the meeting agenda. Motion passed 9-0-0-0 CNV.

3. Approval of Atlanta Meeting Minutes:

Motion by Frank Myers, second by Larry Konopacz to approve the past meeting minutes. Motion passed 9-0-0-0 CNV.

4. Recognition of Liaisons:

- Mark Hegberg (TAC Section Head) was present. He had no report.
- Jennifer Leach (program liason). A new electronic polling system is available for speakers through the ASHRAE app. All speakers are being encouraged to use this tool. She also discussed additional uses of the ASHRAE app at future meetings beyond St. Louis.

5. Chair's Report

Chair Scare summarized the key items from the Section 6 Breakfast.

- (a) 2015-2016 Hightower Award Recipient is Steve Duda, TC 4.3 & TC 9.1.
- (b) Four new Multidisciplinary Task Groups (MTGs) have been formed since the Atlanta meeting
 - (i) MTG.ASEC – Avoided Source Energy Consumption Due to Waste Heat Recovery and Heat Pump Technologies
 - (ii) MTG.IAST – Impact of ASHRAE Standards and Technology on Energy Savings/Performance
 - (iii) MTG.ISAQE – Indoor Swimming Pool Air Quality and Evaporation
 - (iv) MTG.OBB – Occupant Behavior in Buildings
- (c) RAC Prioritizing Research Topics Related to the Residential Sector. Starting in 2015-16, RAC will be prioritizing for bid accepted research topics that support Goal #3 from the Research Strategic Plan. Goal #3 states to reduce significantly the energy consumption for HVAC&R, water heating and lighting in existing homes.
- (d) The new TAC Presentation Template is available on line for TC members to use with local Chapter presentations.

- (e) The Professional Development Committee (PDC) is seeking ideas for new ASHRAE Learning Institute (ALI) courses. Contact Karen Murray of the ASHRAE staff (kmurray@ashrae.org) with your ideas.
- (f) All members are being asked to update their bios on the ASHRAE website.

6. Sub-Committee Reports

- A. Programs: David Lee (Chair). Subcommittee meeting minutes of January 25, 2016 and look ahead for proposed programs in St. Louis and Las Vegas are attached. .

The TC sponsored four programs at this meeting:

- Seminar 3 – Control Valves in Hydronics: A Painted Picture.
- Seminar 28 – Introduction to Biomass Heating and Hydronics for Young Engineers
- Seminar 34 – Hydronic Systems: Doing More with Less
- Seminar 36 – HVAC Pumps: New ECM Motor and Control Technologies

Program submissions are to be completed through the ASHRAE website for the appropriate meeting.

A new electronic polling system is available for speakers through the ASHRAE app. All are being encouraged to use this for session participation.

- B. Research: Tom Cappellin (Chair). Subcommittee meeting minutes of January 25, 2016, are attached.

Chair Cappellin asked for input for other possible research projects. Ayk Yilmaz (AHRI) asked if there was interest in researching the jacket loss factors and where they were developed. Chair Cappellin asked for an RTAR to be developed by St. Louis.

- C. Handbook: Tricia Bruenn (Chair). Subcommittee meeting minutes of January 24, 2016, are attached.

Focus is the review of Chapter 22 (Fundamentals) Pipe Design. Scott Fisher is editing and the chapter is being sent to the members present at the subcommittee meeting. Scott will edit with existing comments and that version will be reviewed. The chapter must be voted out in St. Louis to meet the deadline for publishing.

A new collaborative authoring tool will be available by the St. Louis meeting. Chair Bruenn also discussed the ability of the on-line handbook to include tools, programs and other related information (provided it is scrubbed of company data) to provide backup to a given chapter. This information is being solicited from the membership.

- D. Chilled Water Sub Committee: Steve Tredinnick (Chair). Chair Tredinnick was present. There were 12 members present. The subcommittee met from 6-6:45pm on January 24, 2016.

Topics covered were:

- Progress on the chapter has been slow due to conflicts with the district energy association meetings as well as work.
- Chair Tredinnick reviewed an energy analysis example that was added in the chapter between using equal sized chillers and unequal sized chillers [(2) chillers at 50% vs. (1) vs (1) @ 33% and (1) @ 66%]. The unequal sized chillers save a great deal more energy using the same chiller efficiencies due to the chillers being able to operating in more efficient ratings.
- Committee will have one GoTo type meeting at a 3 month interval.
- Members are encouraged to start writing on their specific topics they voiced interest in.
- File sharing platforms were discussed. Tredinnick set up and share a OneDrive location with the files used to date for the effort. This allow simultaneous use of the working document by multiple users. ASHRAE will roll out “Base Camp” as a file sharing tool prior to the St. Louis meeting as well as appropriate training will be provided at the St. Louis meeting.

E. Membership: Larry Konopacz (Chair). Chair Konopacz reminded the members to update their ASHRAE profile on the website.

F. Standards: Mike O’Rourke (Chair). Chair O’Rourke was not in attendance.

Frank Myers reported Standard 188-2015: Legionellosis is in the process of adoption.

Thomas Butcher reported on the status of Standard 155. He reports the draft is complete and the plan is for public review in St. Louis. AHRI is a co-sponsor with ASHRAE.

G. Standard 90.1: Frank Myers (Chair). Frank Myers volunteered to be the chair for this. The 2016 edition is on schedule to be published by the end of the year. Preliminary analysis has been done on the energy savings (32-34% for building less plug load, 40% overall) over the 2004 baseline. Myers added future savings may require eliminating design options or increasing the complexity of the standard.

H. Professional Development (ALJ). Don Prather (Liaison). Don Prather suggested the position should be removed from the rosters as there is nothing to liaison with or meetings to attend.

Mark Hegberg reported the rewrite of the Water Systems Design is in the book store; comments for Heating System are being reviewed with an anticipated completion in 2-3 weeks; the SI version of Water Systems Design is scheduled for completion in St. Louis, as well.

I. Web: Jessica Mangler (Webmaster) Website is updated with new format. The meeting agenda is posted prior to each meeting. Let Jessica know if any additional information should be added to the website.

7. Liaison Reports from other TC's and Organizations.

- (a) Mark Hegberg reported TC 7.7 is discussing an RTAR for user tools. Suggested co-sponsorship with TC 6.1.
- (b) Don Prather (ACCA) working on a joint standard 11P for commercial building energy audits with ASHRAE. There are concerns with the standard's requirement for energy auditors with specific training and previous experience. The standard has been sent out for an advisory public review.

8. Old Business:

- (a) MTG-O&MEE (Multi-discipline Task Group) – Operations and Maintenance Activities that impact energy efficiency. Don Prather stated no meeting was planned for Orlando and has no update.
- (b) SPC 208. Mark Hegberg reported the SPC met this morning. Plan to release for public review in 2 weeks.

9. New Business:

No new business.

10. Meeting Adjournment:

Motion by Steve Tredinnick, second by Larry Konopacz to adjourn the meeting. Motion passed 9-0-0-0 CNV. Meeting adjourned at 2:36pm.

Submitted by,
Bob Walker.
TC 6.1 Secretary

TC Sign-in Sheet #1

Meeting Information: TC 6.1

Date: 1/26/16

Name	Affiliation	E-mail Address	Member (VM, CM, Guest)	YEA Member?
Larry Konopacz	Xylem, Inc	larry.konopacz@xylem.com	VM	N
STAN KUTW	XYLOM, INC.	STAN.KUTW@XYLOM-INC.COM	Guest	N
Frank Myers	The Myers Group, LLC	fmyers@ix.netcom.com	VM	
Steve Tredinnick	Burns & McDonnell	stredinnick@burnsmcd.com	VM	
DAVID LEE	ARMSTRONG Fluid TECHNOLOGY	dlee@armstrongfluidtechnology.com	VM	
THOMAS NEILL	MESTEK	tneille@mestek.com	VM	N
Mark Hegberg	HFA	mhegberg@comcast.net	CM	N
DON FRATHER	ACCA	donald.frather@acca.org	VM	N
NIELS BIDSTRUP	GRUNDFOS	nbidstrup@grundfos.com	VM	N
Scott Fisher	Retired	SfishBM1@gmail.com	VM	N
JASON ATKISSON	Affiliated Engineers	jatkisson@aeteng.com	CM	N
Mehdi Doura	Lochinvar	mdoura@lochinvar.com	CM	N
Aykut Yilmaz	AHRI	ayilmaz@ahrinet.org	CM	Y
ART GIESLER	PERMAPE	ART.GIESLER@ART.NET	PCM	N
Aileen Williams	LBNL	aawilliams@lbl.gov	Guest	N
Viral Dharaiga	HAYS FLUID CONTROLS	viral.dharaiga@haysfluidcontrols.com	Guest	N
Robert Glass	Raypak Inc.	rglass@raypak.com	Guest	N
Tom Cappellin	Cappellin Consulting Services	tcappellin@msn.com	CM	N
Greg Porter	Danfoss	ggreg.porter@danfoss.com	Guest	N
EVANS J. LIZARDOS	LIZARDOS ENGINEERING	EVANS.LIZARDOS@KEAR.COM	CM	N
Byron Borzani	PQS Engineering	byron.borzani@pqseeng.com	CM	Y
JENNIFER LEACH	COMMINIS WAGNER	pennstajen@yahoo.com	G	N

TC Sign-in Sheet #2

Meeting Information: TC 6.1

Date: 1/26/16

[illegible]

TC 6.1 Program Subcommittee Meeting - Minutes:

January 25, 2016

Attendees:

David Lee, Armstrong Fluid Technology – Program Chair
Bryson Barzini, P2S Engineering
Tricia Bruenn, Belimo
Bob Walker, Belimo
Rex Scare, Armstrong International
Tom Cappellin, Cappellin Consulting Services
Gang Wang, University of Miami
Hooman Daneshmand, PRO Hydronic
Jen Leach, Cummins Wagner
Scott Fisher
Harvey Sachs, ACEEE & RL
Jessica Mangler, Ross + Baruzzini

Minutes:

- 4 Seminars approved at Orlando conference
 - Control Valves in Hydronics: A Painted Picture
 - Introduction to Biomass Heating and Hydronics for Young Engineers
 - Hydronic Systems: Doing More With Less
 - HVAC Pumps: New ECM Motor and Control Technologies
- 4 Seminars to be submitted for St. Louis conference: **(proposal deadline Feb 8, 2016)**
 - Steam System Design Fundamentals and Applications
 - Chair: Rex Scare Speakers: TBA
 - Hydronic Commissioning
 - Chair: Tom Cappellin Speakers: Mike McDermott, Hooman
 - Chiller Plant Control Fundamentals and Optimization Workshop (TBA)
 - Chair: Ed Tsui Speakers: TBA
 - Post Graduate Education for Young Professionals
 - Chair: Hooman Speakers: TBA
- 1 Seminar to be co-sponsored for St. Louis conference:
 - Smart Pumps - What Can They Do For You? (TC 1.4)
 - Chair: Marcelo Acosta Speakers: TBA
- Other programs planned for Las Vegas, winter 2017
- Conference Paper Abstracts for Las Vegas **(abstracts due March 14, 2016)**
 - Impact of Multiple Parallel Pumping Arrangements for Large Chilled Water Systems - Jason (GSH Case Study)
 - Comparison of Pumping Systems – Variable Primary Flow vs Constant Primary-Variable Secondary vs others - Evans J Lizardos
- Technical Papers for Las Vegas due April 18, 2016
- Reviewed best approaches to getting programs approved. Technical papers are given 1st priority followed by Conference papers. Technical papers do not go through CEC. Seminars are the

most competitive due to high number of submissions. If proposed program falls into one of the conference tracks (other than Fundamentals/Applications or Systems/Equipment), likelihood of acceptance is higher.

- New electronic polling is available for all programs – app enabled voting during the program and then audience results shown on screen

TC -6.1 Programs Look Ahead

Year	Summer 2016
Date	June 25-29, 2016
City	St. Louis
Tracks	http://ashraem.confex.com/ashraem/s16/cfp.cgi
1	Advances in Refrigeration Systems and Alternative Refrigerants
2	Research Summit
3	Fundamentals and Applications
4	HVAC Systems and Equipment
5	Smart Building Systems/Remote Monitoring and Diagnostics
6	Indoor Environment: Health, Comfort, Productivity
7	Professional Skills Beyond Engineering
8	Renewable Energy Systems and Net Zero Buildings

Key Dates

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
May 6, 2016	Upload of PPTs Begins
June 6, 2016	All PPTs Due Online
June 22, 2016	Final Day for Commercialism Revision Upload

Technical Paper

Improving Variable Speed Pumping Control to Maximize Savings

A Simulation-Based Study on Different Control Strategies for Variable Speed Pump in Distributed Ground Source Heat Pump Systems

Conference Paper

Seminar

- Steam System Design Fundamentals and Applications- Chair: Rex Scare
- Hydronic Commissioning - Chair: Tom Capellin, Speakers: Mike McDermott, Hooman, Norman Nelson?
- Chiller Plant Control Fundamentals and Optimization Workshop- Chair: Ed T
- Post Graduate Education for Young Professionals - Hooman

- *Smart Pumps - What Can They Do For You? - TC1.4 Marcelo Acosta (TC6.1 co-sponsor)*

Forum

TC -6.1 Programs Look Ahead

Year	Winter 2017
Date	January 28 - February 1, 2017
City	Las Vegas
Tracks	http://ashraem.confex.com/ashraem/w17/cfp.cgi
1	Fundamentals and Applications
2	HVAC Systems and Equipment
3	Water-Energy Nexus
4	Commercial and Industrial IAQ
5	Mission Critical Design and Operation
6	Effects of Climate Change on HVAC&R
7	Energy Efficient Industrial Buildings
8	Building Operation and Performance

Key Dates

March 14, 2016	Conference Paper abstracts due
April 18, 2016	Technical Papers Due
April 4, 2016	Conference Paper abstract accept/reject notifications
June 6, 2016	Website opens for Seminar, Forum and Workshop proposals
July 6, 2016	Final Conference Papers submitted for review (includes bio, learning objectives and methods of assessment)
August 8, 2016	Seminar, Forum and Workshop proposals due
September 7, 2016	Seminar, Forum Workshop accept/reject notifications

Technical Paper

Conference Paper

March 14 abstract	● Impact of Multiple Parallel Pumping Arrangements for Large Chilled Water Systems - Jason (GSH Case Study)
March 14 abstract	● Comparison of Pumping Systems - Variable Primary Flow vs Constant Primary-Variable Secondary vs others - Evans J Lizardos

Seminar

- Valve Sizing and Selection - Robert Walker with TC-1.4 Steve Taylor
 - ASHRAE Code Update For Hydronic System Design - 90.1- 2016 and DOE regulation on pumps - Niels, David
 - Low Delta T on Chilled Water Systems - Steve Tredinnick, Tricia B, Barry TC1.4
 - Pipe Thermal Expansion Design - Bryson Borzini co-sponsor TC6.2
- Reliability / Redundancy in Systems - Partial redundancy (for mission critical track?)

Forum

TC 6.1 Hydronic and Steam Heating Equipment and Systems

Research Subcommittee Meeting Minutes

Hilton Orlando Hotel

2:15pm to 3:15pm - Monday, January 25, 2016

Discussion and Activity Notes:

1. TC 6.1 was approached by TC 1.4 "Control Theory and Application" to provide TC 6.1 members to participate in project bid evaluation and project management activities of their recent 1711-RTAR "Advanced Sequences of Operation for HVAC Systems, Phase II Central Plants and Hydronic Systems". The RTAR has been approved to advance from Work Statement to Project Bid status and TC 1.4 has been urged by RAC to have TC 6.1 participate with involvement in the project's advancement to completion.

The following TC 6.1 members have volunteered to participate in this endeavor:

- Jason Atkisson, TC 6.1 Vice Chair
- Hooman Daneshmand
- Mark Hegberg

2. Notes from RAC's Research Subcommittee Chairs Breakfast

- ASHRAE Research Strategic Plan (2010*2018) addresses technical challenges that limit our ability to maximize building performance, energy efficiency, and indoor environmental quality, while minimizing our impact on the environment.
- Charge from Tech Council:
 - RAC is looking into more Applied Research projects.
 - When RAC has "excess" qualified research projects these should be presented for evaluation to Tech Council for endorsement to request Research reserve funds.
 - Evaluate the concept of allocating Research funds for post project processing that will produce tools, presentations, etc. that add value to the membership and society (not just ASHRAE Society but society in alignment with our Mission).
 - Could be a second bid package for the post "data" research project to perform "applied" research to make the tool.
 - Could be a line item budget for the hiring of outside services to "finish" the holistic research project, not just the Work Plan scope.
 - Updates:
 - Presidential Ad-Hoc Impact of ASHRAE on society – MTG approved
 - URP process under review
 - Process efficiency forum from Atlanta being reviewed
 - Work Statement (WS) modified
 - Training material is being reviewed for publishing on the ASHRAE website
 - AHRI Roadmap for 2L Refrigerants:
 - AHRI Begins Flammable Refrigerants Research Initiative
 - Due to environmental and regulatory concerns, the industry is transitioning to low-GWP refrigerants, which are mildly flammable. In order to address this issue, the AHRI Research and Technology (R&T) established a Flammable Refrigerants Subcommittee to determine the knowledge gaps in existing flammable refrigerant research, and to develop a roadmap with priorities and a timeline to complete research for the safe use of flammable refrigerants, focusing on 2L refrigerants. Through this effort, the subcommittee will facilitate key research, deliver scientific findings, and produce publicly available and

technically sound references to support code and standard activities related to the use of flammable refrigerants.

- As part of this effort, the subcommittee surveyed relevant committees and working groups currently working on codes and standards activities, and identified and prioritized key research needs. The prioritization was based on the importance and urgency of a particular research need. The initial phase will require \$4.6 million to fund high priority projects. AHRI has committed to provide up to \$1 million for this collaborative research effort.
 - Current RAC activities:
 - 9 RTARS have been considered. 5 were accepted with comments, 4 were rejected.
 - 4 Work Statements were considered, 1 was accepted, 1 was conditionally accepted, 1 was returned, and 1 not acted on due to it being incomplete.
 - RAC wants all cosponsoring TCs to provide input to the RTAR and WS development.
 - When a vote is taken, during research committee activities, Abstention and Negative voters need to provide reason for abstention and negative vote.
3. Review research project 1736-RTAR that was rejected by RAC. This RTAR was proposed by Mehdi Shahrestani (University of Reading in the U.K.) and titled "Developing a New Model for Dynamic Simulation of Hydronic Systems." Mehdi's research project deals with developing a computational method of comparing simulations of constant flow hydronic systems to variable flow systems, including all components (pumps, control valves, balancing valves, heating/cooling coils, pipes and fittings). The research project is intended to provide an accurate modeling and precise performance evaluation of Hydronic systems.
- TC 6.1 Research Subcommittee has decided to drop this RTAR from further consideration due to RAC's continued rejection.
4. The following topics have been selected for development into RTARs:
- RTAR - Copper Tube Fitting Flow Factors and the Hydronic Coil Characteristic Modeling. Mark Hegberg will develop this RTAR.
 - RTAR – T-P-S is not yet determined. This RTAR will be developed by Hooman Daneshmand and Tricia Bruenn.

End of Minutes:

Minutes prepared by Thomas E. Cappellin, Chair of TC 6.1 Research Subcommittee

Attachment: Sign-in List

ATTENDANCE LIST – ORLANDO WINTER CONFERENCE

ASHRAE TC 6.1 HYDRONIC & STEAM HEATING EQUIPMENT & SYSTEMS - "RESEARCH" SUBCOMMITTEE

2:15pm-3:15pm – Monday, January 25, 2016 – Ruby Lake (L)

Name	Company and Address	Committee Position	Preferred Phone or E-mail Address
Thomas E. Cappellin	Cappellin Consulting Services 7209 Torrington Way Springfield, IL 62711	Subcommittee Chair	tcappellin@msn.com
Rex Seave	Armstrong International	TC 6.1 Chair	Rex@armstronginternational.com
BOB WALKER	BELIMO AMERICAS	TC 6.1 SECRETARY	robert.walker@us.belimo.com
Tricia M. Bruenn	Belimo	TC 6.1 Handbook Chair	tricia16@msn.com
Jessica Mangler	Ross + Baruzzini	TC 6.1 Webmaster	jmanager@rossbar.com
Byron Baroni	B2S Engineering	CM	byron.baroni@b2seng.com
Scott Fisher	Retired	VM	Sfishbmi@gmail.com
Hoeman Daneshmand	PRO Hydronic 2306 Sherwin St. Garland, TX 75041	CM	hoeman.daneshmand@gmail.com

**ATTENDANCE LIST – ORLANDO WINTER CONFERENCE
ASHRAE TC 6.1 HYDRONIC & STEAM HEATING EQUIPMENT & SYSTEMS - "RESEARCH" SUBCOMMITTEE**

2:15pm–3:15pm – Monday, January 25, 2016 – Ruby Lake (L)

Name	Company and Address	Committee Position	Preferred Phone or E-mail Address
Gang Wang	University of Miami	Guest	g.wang2@miami.edu
JASON ATKISSON	Affiliated Engineers	Vice Chair	jatkisson@aeieng.com
STAD KATID	Xylen Inc, Morton Grove IL,	Guest	STAD.KATID@XYLEMINC.COM
LARRY KONOPAEZ	Xylem - Bell & Gossett Morton Grove, IL	MEMBER TC 6.1	larry.konopaez@xyleminc.com

TC 6.1 Handbook Committee Meeting
5:00-6:00 PM, January 24, 2016
Lake Down A (L), Hilton

Participants: Per attached sign-in sheet

Focus: Chapter 22 Pipe Design for Fundamentals

- Scott Fisher is author
- Discussion on feedback (prior sent by E. Lizardos) and topics broached at meeting
- Feedback will be considered/integrated within next 3 months
- Chapter will be sent for review again and then to Voting Members for vote in June 2016
- Chapter must be approved during next meeting for inclusion in handbook

Additional notes from Handbook Volume/TC meeting on Sunday, January 24, 2016 from 9:00-10:00 AM (attached.)

Submitted by Tricia M. Bruenn

Agenda/Information for Handbook Volume/TC Meetings

2016 ASHRAE Winter Conference, Orlando

Sunday, January 24, 9:00 to 10:00 a.m.

- **Welcome and Introductions** (Handbook liaisons identify which TCs they serve)
- **Information Items**
 1. TCs with chapters for the **2017 ASHRAE Handbook—Fundamentals** should approve their revised chapters NOW or at the Annual Conference in St. Louis. All remaining 2017 *Fundamentals* chapters are due by end July 2016. Your Handbook Committee liaison can confirm your chapter's specific due date. [NOTE: *Even if you intend no changes to your chapter(s)*, you must confirm this to your Handbook liaison and complete and submit the Chapter Approval Checklist as well as written permissions to reuse material copyrighted by others.] For ASHRAE Handbook Online, remember that TC-approved features or out-of-cycle revisions can be submitted at any time.
 2. When you submit your chapter revisions and checklist with all applicable items to your Handbook Committee liaison, please also copy Handbook Editor Mark Owen (mowen@ashrae.org) and Managing Editor Heather Kennedy (hkennedy@ashrae.org) on your email submission. This is recommended as a safeguard against revisions being lost because of email bounces or other breakdowns.
 3. Go to **ASHRAE Handbook Central** (click on the Handbook link under the Resources and Publications tab on the ASHRAE home page, then click on the link to Handbook Central) for easy access to the following:
 - Handbook Comments Database (Comments are forwarded to the appropriate TC chair, TC Handbook subcommittee chair, TAC section head, and Handbook Committee volume subcommittee chair and liaison)
 - **Official Word base files for revising chapters** (revisions *must* be submitted using official Word base files with changes tracked.)
 username: **hndbkhero**
 password: **hvacrev**
 - Important Handbook development guidance documents
 4. Handbook content reminders:
 - Keep the Handbook relevant to its primary users by providing content that helps them accomplish their real-world design tasks. Add at least one **practical design example** to your chapter.
 - Add a **sustainability calculation example or metric**. See 2013 *Fundamentals* Ch. 35 or the *ASHRAE GreenGuide* for additional sustainability guidance.
 - Ask your **TC's international members** for input from their perspective.
 - Include applicable updates from **ASHRAE research project final reports**, which are available free for members on the ASHRAE website.
 5. **ASHRAE Handbook Online** (a free member benefit option) incorporates in its base subscription all the chapters in all four current Handbook volumes plus extra content. TCs have the opportunity to obtain or develop extra content or features and submit them for their chapters. Remember that simple spreadsheets or checklists, some of the easiest items to develop, are often the most helpful to users. Related *ASHRAE Journal* articles and case studies make good supplemental content. TC-approved features or out-of-cycle revisions can be submitted at any time. Guidelines are available on Handbook Central.
 6. A new **collaborative authoring tool** for Handbook content is under development and will be launched by the June meeting. This optional, online tool will allow multiple designated authors to write and/or revise Handbook chapters in Word without needing to email large files or obtain new software. Look for more information coming out later this spring.
 7. **Revision histories** of every chapter are available from your Handbook liaison. Compiled by Handbook editorial staff, these records show the level of revision each chapter received through the last several cycles.
 8. Be sure to schedule and officially request time and meeting space for your **Handbook Subcommittee meeting** for the 2016 Annual Conference in St. Louis, and let your Handbook liaison know of changes (your liaison's contact information should be on your TC roster; if not, please contact Handbook Editor Mark Owen at 678-539-1187 or email: mowen@ashrae.org).
- **Questions and Answers**
- **Liaison/TC Consultation**

ASHRAE SSPEC 52.2 - Method of Testing General Ventilation Devices for Removal Efficiency by Particle Size

Sunday 24

Saturday January 28, 2016 8 am - noon - Orlando, Hilton, Lake Down A

By including your phone number and e-mail address below, you are agreeing that both can be published in minutes that will be made public on ASHRAE web site.

Name	Company/Address	Phone	E-Mail
1 Larry Kasper	Xylem, Morton Grove, IL	847-983-5891	larry.kasper@xylem.com
2 STAN KATIN	XYLEM, Morton Grove, IL	847-983-5712	stan.katin@xylem.com
3 Bryson Boreni	BDS Engineering	562 497 2999	bryson.boreni@bdseng.com
4 Aaron Stotko	Uponor/Apple Valley, MN	763 - 213 - 4618	aaron.stotko@uponor.com
5 Robert Bran	WIDOR CLIMATE CONSULTANTS INC	703.560.5769	K9CANE@gmail.com
6 Rex Scare	REX @ ARMSTRONG INTERNATIONAL .com	269-273-1415	Armstrong Int.
7 BOB WALKER	DELINCO AMERICAS 1475 ST LAWRENCE CT, FENTON, MI	586 945 1198	robert.walker@us.belimco.net
8 MARK HEPBURN	HFA 165 R. CLINTON RD FENTON, MI 48430	620-300-3658	mh@hfa.com
9 Steve Severini	Newcomb & Boyd Atlanta, GA	404-730-8481	sseverini@newcomb-boyd.com
10 NIELS BIDSTROP	GRUNDKOS	445 2030 4517	nbidstrup@grundkbs.com
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13 Van Baxter	Oak Ridge Nat Lab.	865-574-2108	vdb@ornl.gov
14 DAVID LEE	HEMISPERIC FLUID TECHNOLOGY	416 - 755 - 2291	dlee@hemisphericfluidtechnology.com
15 Steve Treadnick	Burns & M Dannel	630-724-3384	streadnick@burnsmid.com