



TC/TG/TRG MINUTES COVER SHEET

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

TC/TG/TRG NO **TC 3.6** DATE **July 10, 2015**

TC/TG/TRG TITLE **Water Treatment**

DATE OF MEETING **June 30, 2015**

LOCATION **Atlanta, Georgia**

MEMBERS PRESENT	YEAR APPTD	MEMBERS ABSENT	YEAR APPTD	EX-OFFICIO MEMBERS AND ADDITIONAL ATTENDANCE
Frank Morrison (Chair)	2013	Bill McCoy	2014	Jeremy Stokes – CM (Webmaster)
Todd Cornwell (Research Chair)	2013	Dan Weimar	2012	Jon Cohen -CM (Programs Chair)
Henry Becker	2013			Sarah Ferrari – CM (Vice Chair)
Helen Cerra	2013			Scott Schaffer - CM
Allyn Troisi	2013			Bill Pearson - CM
Janet Stout	2013			Dick Miller – CM
Ron Wood	2011			Alain Trahan – CM
Michael Patton	2012			Michael Schmeida -PCM
Scott Mayes	2014			Eric Adjei - PCM
Tim Keane	2012			Jeff Boldt
Al Spence	2013			Bob Cunningham
Clive Ling	2014			Gary Harbison
Claressa Lucas	2012			Tom Watson
Paul Lindahl	2013			Ruffin Tyler
Leon Shapiro	2014			Ron George
				Tania Ullah
				Valerie Baish
				Tiffany Bates

DISTRIBUTION

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

TAC Section Head:	Jay Kohler
TAC Chair:	Eric Adams
All Committee Liaisons As Shown On TC/TG/TRG Rosters:	Stephen Piccolo, Mark Spatz, Francis Mills, Darin Nutter
Manager Of Standards	Malcolm D. Knight
Manager Of Research & Technical Services	Mike Vaughn

Reply To: Frank T. Morrison
fmorrison@baltimoreaircoil.com
Chair TC 3.6

Or

Sarah Ferrari
sferrari@evapco.com
Vice Chair TC3.6

TC 3.6 MEETING Minutes

Date/Time: ASHRAE TC 3.6 Meeting, Tuesday June 30, 2015 1:00 p.m. – 3:30 p.m.

Room: Atlanta Hilton, Room 401

Note: *TC3.6 Handbook / Program / Research Subcommittees*

Date/Time: Sunday, June 28 3:00 p.m. – 5:00 p.m.

Room: Atlanta Hilton, Room 401

Scope:

Technical Committee 3.6 is concerned with water treatment for building water systems including scale, corrosion and microbiological control (except sewage drainage systems) and the impacts of water treatment on building operations, maintenance, sustainability, energy efficiency, human health, and water resource conservation.

Agenda:

1. CALL TO ORDER

At 1:02 PM by the Chair.

2. ROLL CALL & INTRODUCTIONS

Members and guests introduced themselves and their affiliations, signing in on the sign-in sheets provided.

3. REVIEW OF AGENDA

No agenda changes or additions.

4. APPROVAL OF MINUTES (*2015 Winter Meeting, Chicago, IL*)

Correct draft minutes to show that Alain Trahan was present.
Motion to approve minutes as amended by Troisi, 2nd by Spence
Approved 11-0-0 CNV

5. REVIEW OF SECTION 3 BREAKFAST – *Frank Morrison*



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Key items of interest, complete list in the attachment:

Tools:

New website format will be available in fall 2015.
All TC positions will now have email aliases. Personal email addresses are not posted on the website, only aliases.
ASHRAE offers web meeting host services.
Google TC master calendar is available.

Recognition:

Request a thank you letter to be sent to your employer if desired.
The outstanding TC award is up for grabs again.
Jeff Boldt received an ASHRAE Distinguished Service Award.
Paul Lindahl received the ASHRAE Journal Paper Award for his article titled "Cold Weather Operation of Cooling Towers".

Opportunities:

Volunteers are needed to support Technical Program Content development and quality control.
A new MTG has formed: Operations and Maintenance activities that impact energy efficiency.
ASHRAE CEC is soliciting Program Track recommendations for Las Vegas meeting.

6. SECTION 3 CHAIR REVIEW – *Jay Kohler*

Section 3 Chair, Jay Kohler, offered assistance to the TC. Information, webinars, and training tools for leadership positions are on the ASHRAE website. The new roster takes effect after this meeting. Remember to submit the activity form today. Please welcome new members.

Jay presented Frank with a Certificate of Appreciation for his service as TC 3.6 Chair.

7. MEMBERSHIP REPORT –*Bill Pearson*

As of July 2 2015, until June 29 2016, the TC will have 17 VM.
VM term is four years.

Rolling off after this June meeting are:

Ron Wood
Frank Morrison
Scott Mayes

Rolling on after this June meeting are:

Bill Pearson
Dick Miller
Sarah Ferrari as Chair

Others interested in joining the committee should speak to Bill Pearson, our Membership Chair, regarding being added as provisional corresponding members.

LIAISON REPORTS - ASHRAE / AWT / CTI / OTHERS

7.1. Relevant Codes and Standards Reports

7.1.1. ASHRAE Standard 188

(M. Patton) – Standard 188-2015 is published and available at the bookstore. The committee worked on changes to remove non-code language which are a barrier to being referenced in the ICC. The standard is on continuous maintenance. The committee will soon begin work on Guideline 12.

7.1.2. CTI Guideline 159

(P. Lindahl) – Much progress has been made in the merger of the existing guideline with the draft standard. One section remains to be worked out. The next meeting is July 14, 2015 at CTI. The Guideline only covers cooling towers, including large industrial towers.

7.1.3. Standard 189P

(M. Schmeida) – The energy-water nexus is an important topic that will be getting more attention. The committee will attempt to derive a method for calculating the energy consumed as water is used in a building. A new subcommittee has formed to address water use and reclamation.

7.1.4. Standard 191P

(A. Troisi) – Fred Betz is assuming the role of chair. Fred is reducing the scope to building mechanical systems. Plumbing, agriculture, industrial uses etc are removed. A new Title/Purpose/Scope are being developed.

7.1.5. ASHRAE Standard 90.1

(P. Lindahl) – Climate zones and target cities, including some international cities, were finalized by ASHRAE. New load data is being regenerated for standard building types. The chiller plant working group will regenerate the water and water treatment cost data. This is being coordinated by Bill Pearson. Ron Wood volunteered to integrate the data.

7.1.6. CEC Title 24

(P. Lindahl) – The 2016 version is almost finished. Efficiency requirements are similar to the 2016 90.1 values, particularly with respect to evaporative cooling equipment.

7.1.7. ICC Code

(T. Keane) – Fourteen Legionella control provisions were proposed to the code. These were voted down with support from TC 3.6 at the May meeting. Std 188-2015 may be included in the new version of ICC, to be issued this fall.

7.2. ASHRAE Legionella Position Document Update

(R. Miller) – This is a basic informative document last updated in 1998. Committee members have commented and a draft will be generated by the end of this year. Now that 188 has been published it can be referenced within the position document.

8. HANDBOOK – *Schmeida for Weimar*

8.1. A working group was formed to tackle the subject of water reuse.

8.2. B. Pearson will survey the chapter for accuracy with respect to 188 references.



8.3. This is a good time to add online content, such as calculators and graphics.

8.4. Mike Patton has graciously volunteered to Chair the Handbook subcommittee. Subcommittee members include Henry Becker, Mike Patton, Clive Ling, Helen Cerra, Bob Cunningham, Jon Cohen, and Frank Morrison, Allan Troisi, Alain Trahan, Jeff Boldt. All are welcome to contribute.

9. RESEARCH – *Todd Cornwell*

9.1. Research subcommittee chair's breakfast: ASHRAE is very active in research. There are 61 active projects and \$10 MM in current funding. ASHRAE has implemented milestones for payment.

9.2. TC 3.6 has three proposed RTARs in process.

9.2.1. (M. Patton) Biofilm study. Develop a set of procedures and standards for on-site sessile enumeration in closed and open systems. The draft was distributed for comment. TC 8.6 will co-sponsor. CTI will consider co-sponsorship. The board of AWT has already approved funds for an ASHRAE research project, potentially this one.

9.2.2. (J. Stout) Survey of buildings to verify or improve the risk factors listed in Standard 188. Evaluate whether these risk factors are predictive of colonization, and therefore disease. The survey can also provide baseline colonization data for comparison at some later date after the Standard 188 risk management approach is implemented. Janet solicited comments on how to approach this study.

9.2.3. (T. Keane) Std 188 may prompt potable loop temperature control limits but published recommended values for hot water are inconsistent. What are safe temperatures (scald vs. bio-control)? What are appropriate science-based recommendations? This project would begin as a literature search.

9.3. Consider what type of research could be done to demonstrate the effect of CEC Title 24 on water use. Propose a better methodology for the efficient use of water. Consider the impact of water chemistry.

10. PROGRAM – *Jon Cohen*

10.1. TC 3.6 cosponsored Seminar 3 with TC 8.6 titled "*Designing HVAC Systems: Engineering Keys to Legionella Control and Prevention*". The seminar was held Sunday morning. Great presentation.

10.2. Conference papers for the Great Debate Track in Orlando are in review. Final drafts are due July 13. H. Becker to present on KPI criteria. H. Cerra to present on chemical treatment. M. Patton to present on non-chemical treatment.

10.3. A workshop on Std 188-2015 is proposed for Orlando with co-sponsorship by TC 8.6 and SSPC 188. EHC may also co-sponsor.
Motion to approve by Troisi, 2nd by Pearson.
12-0-0 CNV

10.4. Consider a mini-conference for the Energy Water Nexus Track in Las Vegas.

10.5. Future topics may include the basics of boiler and cooling tower treatment.

11. WEBSITE UPDATE – *Jeremy Stokes*

The new website format will be welcome. Please send social night photos to Jeremy.

12. SOCIAL NIGHT REPORT – *Todd Cornwell*

TC 3.6 Social night was held Sunday June 28 at Max Lager's Wood Fired Grill & Brewery with 23 in attendance. Great food, great beer brewed on the premises. The TC thanked Social Night Chair, Todd Cornwell, for organizing the gathering.

Frank and Terri Morrison volunteered to coordinate a venue for the Orlando meeting. Patton moved that an invitation be extended to TC 8.6. 2nd by Troisi.
12-0-0 CNV

13. OLD BUSINESS

None.

14. NEW BUSINESS

Frank recommends the TC nominate Paul Lindahl for the Hightower Award for his extensive contributions to TCs.

So moved by Pearson, 2nd by Spence.
12-0-0 CNV

This is Al Spence's last meeting after 20+ years of committee service.
Thank you Al for your many years of service and friendship!

15. DATE AND LOCATION FOR NEXT MEETING

*Winter Conference – Orlando FL – Jan 23-27, 2015
TC 3.6 Meeting January 26*

16. ADJOURNMENT

A motion for adjournment was made by Ling and 2nd by Spence.
Motion approved 12-0-0 CNV.