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Built Environment Today

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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 **January 27, 2015**

LOCATION **Chicago, Illinois**

MEMBERS PRESENT	YEAR APPTD	MEMBERS ABSENT	YEAR APPTD	EX-OFFICIO MEMBERS AND ADDITIONAL ATTENDANCE
Frank Morrison (Chair)	2013			
Dan Weimar (Handbook Chair)	2012	Claressa Lucas	2012	Jeremy Stokes – CM (Webmaster)
Todd Cornwell (Research Chair)	2013	Paul Lindahl	2013	Jon Cohen -CM (Programs Chair)
Henry Becker	2013	Bill McCoy	2014	Sarah Ferrari – CM (Vice Chair)
Helen Cerra	2013			Kaye Flamm – CM
Allyn Troisi	2013			Scott Schaffer - CM
Janet Stout	2013			Michael Schmeida -PCM
Ron Wood	2011			John Fordemwalt - PCM
Michael Patton	2012			Jeffrey Bruce - PCM
Scott Mayes	2014			Jeff Ramey
Tim Keane	2012			Chris Zook
Al Spence	2013			Mark Pfeifer
Clive Ling	2014			Marshal Zabel
Leon Shapiro	2014			Gary Harbison
				Bob Cunningham
				Tom Watson
				Alain Trahan - CM

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 January 27, 2015 1:00 p.m. – 3:30 p.m.

Room: Montrose 4, Palmer House

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

Date/Time: Sunday, January 25 3:00 p.m. – 5:00 p.m.

Room: Clark 1, Palmer House

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 1:04 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 (2014 Annual Meeting, Seattle, WA)

Motion to approve minutes dated Sept 5 2014 by Patton, 2nd by Weimar
Approved 10-0-0 CNV

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



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Key items of interest:

The Section 3 TCs discussed concerns over difficulty getting programs on the schedule. Frank requested that the Section Chair not forget about water treatment amongst the refrigeration committees that make up the rest of the Section.

ASHRAE is seeking practical, broadly appealing topics for Learning Institute courses. Water Treatment Basics is a good topic for an ALI seminar, short course, or online course. Alternately this topic might draw attendance as an educational session in conjunction with the AHR Expo.

The 2014-15 winner of the Top TC award for Section 3 was TC 3.4.

6. SECTION 3 CHAIR REVIEW – *Jay Kohler*

Jay Kohler introduced himself as the incoming Section 3 Chair. He observed that TC3.6 is an active, well-attended committee with a well maintained website. Social night photos on the website reflect the welcoming and friendly tone of our TC. The committee welcomes Mr. Kohler to join us for dinner in Atlanta.

7. MEMBERSHIP REPORT – *Frank Morrison for Bill Pearson*

As of July 4 2014, until July 1 2015, the TC has 17 VM.
As of July 2 2015, until June 29 2016, the TC will have 17 VM.

Rolling off after the June meeting is:

Ron Wood

Al Spence announced his forthcoming retirement

Rolling on after the June meeting are:

Bill Pearson

Sarah Ferrari as Chair

Frank acknowledged Todd Cornwell as Research Chair as of this Chicago meeting and Helen Cerra as Vice Chair beginning July 2 2015.

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

8. LIAISON REPORTS - ASHRAE / AWT / CTI / OTHERS

8.1. Relevant Codes and Standards Reports

8.1.1. ASHRAE Standard 188P

(M. Patton) – The SPC recently completed the fourth public review and resolved unresponsive comments. Healthcare stakeholders were still unresolved with respect to the alternate compliance path for healthcare facilities at the time of this TC meeting, however they did reach resolution later in the day. The next step is ISC public review. This is a major positive step since comments can be made only on changed sections. The Standard could issue in 2015. It was also approved for continuous maintenance.

Tom Watson provided more detail on Standard 188P status which is available as an attachment to these minutes.

8.1.2. CTI Guideline 159

(H. Cerra) – In June 2014 the committee voted to produce a new guideline rather than a standard. The committee is in the process of merging the existing guideline with the draft standard. The next meeting is Feb 8, 2015 at CTI. The timeframe for publication is unclear, perhaps optimistically in 2015.

8.1.3. Standard 189P

(M. Schmeida) – The water efficiency working group proposes to integrate Standard 188 into the users' manual, specifically with respect to reclaim water storage and use.

Standard 189P is an alternate compliance path to the International Green Construction Code (IGCC). There are efforts to combine 189P with IGCC.

8.1.4. Standard 191P

(A. Troisi) – The committee is responding to comments from the second public review. Another full public review is anticipated after the June meeting. A working group has formed to define a water modelling system which will be added to the code.

8.1.5. ASHRAE Standard 90.1

(F. Morrison) - Water cooled vs air cooled chiller analyses were done with assistance from TC3.6, however as reported at the last meeting, the target cities, and therefore the climate data, are changing so much of this work must be repeated. The committee is waiting for climate zones and target cities to be finalized by ASHRAE.

8.1.6. CEC Title 24

(F. Morrison) – The CA Energy Commission (CEC) adopted many of the efficiency levels and requirements from Standard 90.1-2013 for the 2016 revisions to Title 24 so this update appears reasonable. Recall the onerous requirements for evaporative condensers in the 2013 version which TC 3.6 and TC 8.6 objected to but were implemented anyway by the California Energy Commission.

8.2. ASHRAE Legionella Position Document Update

(J. Stout for R. Miller) – The committee formed to update the document has been approved by Tech Council and includes many members of TC 3.6. The committee chair, Dick Miller, expects the update to be completed by the summer meeting.

8.3. Proposed CSA Rainwater Harvesting Standard

(Jeffrey Bruce - Landscape architect and practitioner of Integrated Water Management) – The use of green infrastructure for storm water management



provides significant eco-benefits. It is most efficient to decentralize for harvest and reuse on site or at the district level. Harvested water is primarily used for exterior landscape irrigation.

(F. Morrison) – There are opportunities for inclusion of this subject into our handbook chapter. Microbial growth in stored water and corrosion due to rainwater's low conductivity can be problematic. This is an opportunity for us to work together on these issues.

Volunteers to review the proposed standard and to provide comments include Clive Ling, Bob Cunningham, Jon Cohen, and Dan Weimar.

9. HANDBOOK – *Dan Weimar*

9.1. Chapter revisions for the 2015 Handbook “hard copy” edition were successfully submitted before the last meeting. Dan thanks the committee for their dedication. With this larger effort completed, the chapter now moves into continuous maintenance. Frequent smaller updates are anticipated for the e-version of the chapter. The e-versions also allow us to include useful widgets, links, and calculators.

9.2. New topics to consider include cleaning of cooling towers, definitions of vocabulary terms such as grey water and reuse water, discussion of factors which enhance or retard microbial growth, water treatment for irrigation, and boiler water treatment. Additional topics (and writers) are welcome.

9.3. An open item from the NYC meeting is the need to classify water, specifically recycled water, based on measurable criteria. Definitions of the various terms vary widely making progress difficult. M. Schmeida, M. Patton, H. Cerra will develop a draft for the committee to consider in Atlanta.

9.4. The Handbook Subcommittee is in need of a new chair for the 2018 Edition. Dan graciously agreed to serve in the interim. Subcommittee members include Henry Becker, Mike Patton, Clive Ling, Helen Cerra, and Frank Morrison.

10. RESEARCH – *Todd Cornwell*

10.1. TC 3.6 has two proposed RTARs in process.

10.1.1. Biofilm study. Develop a set of procedures and standards for sessile enumeration. Patton distributed a draft for comments. Mike will bring the topic to CTI for possible coordination and co-sponsorship. The goal is to approve the RTAR by letter ballot prior to summer meeting so it can be considered by RAC in Atlanta.

10.1.2. Survey of buildings to verify or improve the risk factors listed in Draft 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 will prepare a draft RTAR for letter ballot prior to the summer meeting.

10.2. ASHRAE has 59 active projects with \$11 million in funding. There are no projects on hold. The average project cost is \$100k.

10.3. Morrison extended an open invitation to the Sunday subcommittee meetings for those interested in TC 3.6 Handbook, Research, or Program activities.

11. PROGRAM – *Jon Cohen*

11.1. The Chair thanked Scott for his outstanding work as Programs Subcommittee chair and welcomed Jon Cohen.

11.2. Stout proposed a Seminar for Atlanta, title to be determined, on engineering specifications for managing Legionella bacteria in building water systems. There is no conflict with SPC188 if Guideline 12 is used as a basis. TC 8.6 to co-sponsor. Mayes to chair session.

Motion to approve by Patton, 2nd Troisi
13-0-0 CNV

11.3. Cohen proposed a Conference Paper Session for Orlando on the subjects of non-chemical and chemical water treatment for “The great debate” track. Becker offered to provide an overview and establish performance metrics. Patton will speak to non-chemical treatment and Cerra will cover chemical treatment. TC 8.6 to co-sponsor. Mayes to chair session. Abstracts are due March 23 and papers are due July 6 2015.

Motion to approve by Mayes, 2nd Stout
13-0-0 CNV

11.4. Consider a program discussing Standards Guidelines and Codes on water or energy conservation for Orlando. Future topics might include TOC and water treatment or Ramifications of zero bleed among others.

Send any ideas for Program Tracks for St Louis to Leon Shapiro.

11.5. Programs of note at this Chicago Meeting

11.5.1. TC 3.6 is co-sponsoring Seminar 52 with TC 08.06 and TC 05.07 titled “*Alternative Sources of Recycle/Makeup Water: Practical Considerations for What SHOULD be a Good Idea*”. The seminar will be held Wednesday, January 28, 2015, 8:00 am – 9:30 am in the Crystal Room, Palmer House.

11.5.2. TC 1.4 is sponsoring Seminar 57 titled “*Energy and Water Efficient Systems? Impossible Without Controls!*”. The seminar will include a paper on “*Integration of Irrigation Controls into Building Automation Systems*”. The seminar will be held Wednesday, January 28, 2015, 9:45 am – 10:45 am in the Monroe Room, Palmer House.

12. WEBSITE UPDATE – *Jeremy Stokes*

The TC 3.6 Website is a good source of current information including meeting schedules and locations, and meeting minutes. Jeremy will update membership on [the](#) website to reflect roster changes.



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13. SOCIAL NIGHT REPORT – *Henry Becker*

TC 3.6 Social night was held Sunday January 25 at Harry Caray's Italian Steakhouse with 26 in attendance. Attendees observed that they make a perfect Manhattan! The TC thanked Chicago native and Social Night Chair, Henry Becker, for selecting this great venue.

Todd Cornwell and Mike Adams volunteered to coordinate a venue for the Atlanta meeting.

14. OLD BUSINESS

None.

15. NEW BUSINESS

TC 3.6 PCM John Fordemwalt reported that the International Green Construction Code (IGCC) is merging with ASHRAE Standard 189. The IGCC will reference *Standard 189* as an alternative jurisdictional compliance option within the IGCC.

John sees an opportunity to cross pollenate back to the American Society of Irrigation Consultants and requested a volunteer to speak for 30 minutes at the upcoming ASIC conference on how ASHRAE works and how the design process works. The conference will be held April 27th 2015 in Minneapolis.

16. DATE AND LOCATION FOR NEXT MEETING

Annual Conference – Atlanta, GA – June 27 to July 01 2015
TC 3.6 Meeting June 30

17. ADJOURNMENT

A motion for adjournment was made by Patton and seconded by Weimar.
Motion approved 13-0-0 CNV.