



Shaping Tomorrow's
Built Environment Today

1791 Tullie Circle NE ▪ Atlanta, Georgia 30329-2305 ▪ Tel 404-636-8400 ▪ Fax 404-321-5478 ▪ <http://www.ashrae.org>

TC/TG/TRG MINUTES COVER SHEET

TC/TG/TRG NO **TC 3.6** DATE **June 6, 2016**

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

DATE OF MEETING **January 26, 2016**

LOCATION **Orlando Florida**

MEMBERS PRESENT	YEAR APPT	MEMBERS ABSENT	YEAR APPT	EX-OFFICIO MEMBERS & ADDIT'L ATTENDANCE
Bill Pearson	2015	Dick Miller	2015	Jon Cohen - CM
Todd Cornwell	2015	Bill McCoy	2014	Clive Broadbent - CM
Clive Ling	2014	Al Spence	2013	Michael McDonald – CM
Frank Morrison	2015			Pat Racine – CM
Leon Shapiro	2014			Jeff Ramey – CM
Helen Cerra	2015			Alain Trahan – CM
Henry Becker	2013			Ruffin Tyler – PCM
Paul Lindahl	2013			Joshua Ince – PCM
Janet Stout	2013			Jeff Boldt - PCM
Allyn Troisi	2013			Bob Cunningham
Sarah Ferrari	2015			Tom Watson
Tim Keane	2012			Laura Cooley
Claressa Lucas	2012			Jay Kohler
Dan Weimar	2015			Mark Pfeifer
Michael Patton	2015			Valerie Baish
				Rajendera Kapoor
				Gary Harbison
				Domenic DeCaria
				Stan Nederman
				Scott Mold

TC 3.6 Management Team	
Chair	Sarah Ferrari
Vice Chair	Helen Cerra
Program	Jon Cohen
Handbook	Michael Patton
Research	Todd Cornwell
Membership	Bill Pearson
Webmaster	Jeremy Stokes

DISTRIBUTION

ALL MEMBERS OF THE TC/TG/TRG

TAC Chair	Thomas Lawrence
TAC Section Head	Jay Kohler
CTTC Liaison	Stephen Piccolo
Research Liaison	Mark Spatz
ALI Liaison	Cameron Labunski
Handbook Liaison	Harris Sheinman
Standards Liaisons	Niels Bidstrup
Staff Liaison	Mike Vaughn

Note: These draft minutes have not been approved and are not the official approved record until approved by this committee.



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ASHRAE TC3.6 Meeting Minutes - 2016 Winter Conference Orlando, Florida USA

Main TC 3.6 Meeting

Tuesday, January 26, 1:00-3:30 PM, Turkey Lake, Level (L), Orlando Hilton

TC 3.6 Handbook / Program / Research

Sunday, January 24, 3:00-5:00 PM, Lake Hart A, Level (L), Orlando Hilton

TC 3.6 Technical Programs

Sunday, January 24, 9:45-10:45 PM, Orange Ballroom E, Orlando Hilton

Workshop 3

ASHRAE Standard 188-2015, Legionellosis: Risk Management for Building Water Systems: What's Your Responsibility?

Sunday, January 24, 1:30-3:00 PM, Orange Ballroom G, Orlando Hilton

Conference Paper Session 6

Cooling Tower Filtration and Water Treatment

Track: The Great Debate

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.

Minutes:

1. CALL TO ORDER

Meeting Called to order at 1:04 PM by the chair

2. ROLL CALL & INTRODUCTIONS

Member and guest sign-in sheets were distributed. Attendees introduced themselves with their affiliation.

3. REVIEW OF AGENDA – Sarah Ferrari added Code of ethics

4. APPROVAL OF MINUTES (2015 Annual Meeting, Atlanta, GA)

Weimar made motion to approve. Stout second. Approved 11-0-0 CNV

5. REVIEW OF SECTION 3 BREAKFAST MEETING – Sarah Ferrari

- The TC website template has been updated. It is easier to navigate and easier to maintain.
- Additional TC email aliases are now available. Find the link to the alias list on the ASHRAE Technical Committee page or on our TC Membership page.
- CEC has requested TC Volunteers to review future technical programs.
- The Professional Development Committee (PDC) is seeking ideas for new ASHRAE Learning Institute (ALI) courses.

6. SECTION 3 CHAIR REVIEW – Jay Kohler

Jay offered his help and support to the committee. He reminded new members that the ASHRAE website has good information with recorded training sessions.

7. MEMBERSHIP REPORT – Bill Pearson

Pearson reviewed membership terms and the four year period of voting. The committee has 18 voting members. The committee year ends after the June 2016 meeting.

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

8.1. Relevant Codes and Standards Reports

8.1.1. ASHRAE Standard 188

(P. Lindahl) – SPC 188 transitioned to SSPC and restructured the roster to have 22 members. The committee is working on Guideline 12 at this meeting. The ASHRAE Learning Institute (ALI) serial #1 course is available through ASHRAE and was presented at this meeting. The hope is to have ALI in a recorded webinar, available in the spring.

Seminars on SSPC 188 have been presented as well as a Journal Article. ASHRAE has been very responsive to the New York City regulations. New York City local law 77 only referenced 7.2 of Standard 188. Michael Patton testified and subsequently worked with City Council lawyers and got 5, 6 and 7.2 included. DOH has to make a recommendation on whether to adopt the full standard by March 1. ASHRAE borough members will be sending letters to proper authorities. – Michael Patton.



8.1.2. CTI Guideline 159

(H. Cerra) - The committee is actively working on the guideline with hopes of approval by the Board of Directors in 2016. Winter conference is February 7-10.

8.1.3. Standard 189P

(Jeff Boldt) – The committee is working on the Green Building Code, for both international and United States since ICC has disbanded their international code. IEA ICC writes the initial chapters and ASHRAE provides technical content. USGBC may accept if written in code language.

8.1.4. Standard 191P

(Allyn Troisi). – There is no scheduled meeting in Orlando. The committee completed updates and changes. A conference call is scheduled for February to discuss additional work on the minimum standard for water efficiency.

8.1.5. ASHRAE Standard 90.1

(Paul Lindahl, Frank Morrison) – The committee is working on proposed doubling of the minimum efficiency for systems that have water side economizers. They have not been able to negotiate consensus. The concerns include a market shift to less energy efficient technology. This is being driven by European CEN standards.

8.1.6. CEC Title 24 – CA Energy Commission

(Paul Lindahl, Frank Morrison) - Reference the website for stakeholder meetings and Water and HVAC proposals.

8.2. ASHRAE Legionella Position Document Update (Claressa Lucas) – Dick Miller who has chaired that meeting has resigned. The comments that were generated were sent to Environmental Health. Rajendera Kapoor (TC9.6) volunteered to work with Claressa Lucas.

9. HANDBOOK – Patton

9.1. Handbook Subcommittee Update – discussion on the three year review/submission. Michael Patton volunteered to review the chapter for thoroughness. Jeff Boldt gave comments on review. Omissions, cogent COC, some missing items. Edits, clarification can be made electronically. Bill Pearson, Valerie Baish and Alain Trahain offered to review the chapter. The decision on whether to reorganize the chapter or create a new outline will be decided at the June meeting in St. Louis. Handbook Committee is looking for a model handbook chapter or process model. Possible options for sharing platform include Base Camp III (Drop box file platform) or SharePoint collaborative tool. Google Docs is no longer

an appropriate platform due to security concerns. There was discussion on Title 24 LSI calculation.

9.2. Goals for 2018 Edition – Outline for June meeting. Electronic submittals between review submittals.

10. RESEARCH – *Todd Cornwell* – Michael Patton proposed Analysis of Methodologies for enumerating sessile populations in water systems. RTAR is written and will be sent out for letter ballot. February is the deadline for letter ballot approval.

Alain Trahan proposed research relative to Quebec. The province has *Legionella* result data on 2000 cooling towers, split among four laboratories. Gather data and look for trends. Discussion on possible relationship with temperature. There are questions of data ownership and method of recording temperature. Alain will get information to Todd.

10.1. Research project update

Interest in qPCR and vPCR in Quebec and OSHA. qPCR provides results in two days. Test results already have been published about this method.

Tim Keane recommended researching statistics for hot water and scalding and temperature recommendations for Legionella and scalding, 140 and 122. Various options for preventing scalding based on practice and codes were discussed. T. Keane proposed RTAR on literature review of data. Include Canada who raised code to 125F. The deliverable would be recommendations from ASHRAE. Project could research risk factors. Janet and Tim will work on the RTAR

11. PROGRAM – *Jon Cohen*

11.1. Workshop 3, ASHRAE 188-2015, Legionellosis; Risk Management for Building Water Systems, What's Your Responsibility was well attended. Seminars 10 and 19 about Codes and Standards for *Legionella* control sponsored by EHS were also well attended.

Paper Session 6, Water Treatment Great Debate had full attendance and audience participation.

The ASHRAE Learning Institute course on 188-12015 was presented by Michael Patton and Bill Pearson with very favorable feedback. The attendance was full.

11.2. Programs for Upcoming Meetings.

For June 2016

Seminar on plumbing system design for *Legionella* control. Gary Klein and Tim Keane will present on *Legionella* and water design for plumbing efficiency. This is being co-sponsored with TC6.6. Additional speaker and chair to be named later.



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Seminar on water treatment, designs for asset management. Bill Pearson will chair. Jon Cohen will cover fundamentals, Patrick Racine will cover controls monitoring and Jeff Boldt will cover specs for HVAC systems.

Seminar on issues around *Legionella* outbreaks. Josh Ince will chair. Janet Stout, Sarah Ferrari and Tim Keane will present.

Seminar abstracts are due by Feb.8.

For January 2017

Paper Session - Jon Cohen will write a paper on water reuse/recycle. Leon Shapiro will cover direct and indirect potable water reuse. Dan Weimar offered to cover alternate methods for district energy using RO water/blend for cooling towers. Domenic DeCaria will write on the effects of *Legionella* and unintended consequences. Jon, Leon and Domenic will submit for Las Vegas Conference papers.

12. WEBSITE UPDATE – *Jeremy Stokes* – The Website has a new format. Everyone should go on line to check it out.

13. SOCIAL NIGHT REPORT – *Frank Morrison*

The committee would like to thank Frank and Terri for arranging a successful dinner at Copper Canyon Grille Monday night. Attendance was at **32** including friends from TC 8.6!

13.1. Appointment of Social Night Chair for St. Louis Meeting – Paul Lindahl.

14. OLD BUSINESS – No old business

15. NEW BUSINESS – New email list. Sarah will resend.

16. DATE AND LOCATION FOR NEXT MEETING

Annual Meeting – St. Louis, MO USA – June 25-29, 2016

Bill Pearson motioned to adjourn the meeting, Todd Cornwell seconded. 13-0-0.

17. ADJOURNMENT – 3:18 pm