



1791 Tullie Circle, N.E./Atlanta, GA 30329
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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/TG/MTG/TRG No. TC 6.06 DATE 1/22/2018

TC/TG/MTG/TRG TITLE Service Water Heating Systems

DATE OF MEETING 1/22/2018 LOCATION Chicago, IL

VOTING MEMBERS PRESENT	VOTING MEMBERS ABSENT	EX-OFFICIO MEMBERS AND ADDITIONAL ATTENDANCE
Mr Dan Snyder	Dr William M Healy	Jeff Ramey
Mr Amin Delagah	Mr Ronald George	Eric Truskoski
Mr Paul E Glanville	Mr Martin Thomas	Titu Doctor
Mr James W Earley, Jr	Mr Gary A Klein	Michael Garrabrant
Mr Fredric S Goldner		Paul Hikspoors
Mr David Seitz		Lawrence Spielvogel
		Frank Stanonik
		Paul Steffes
6	4	Omar Abdelaziz
		Garrett Doss
		Bert Phillips
		David Desjardins
		Sun Oung
		Judd Smith
		Josip Novkovic
		Tom Steffes
		Brent Kovash
		James Lutz
		Ben Schoenbauer
		Frank Myers

		Carl Hiller
		David Noyes
		Stan Kutin
DISTRIBUTION: All Members of TC/TG/MTG/TRG plus the following:		
TAC Section Head: Mark Hegberg	SH06@ashrae.net	
All Committee Liaisons As Shown On TC/TG/MTG/TRG Rosters (Research, Standards, ALI, etc.)	See ASHRAE email alias list for needed addresses.	
Mike Vaughn, Manager Of Research & Technical Services	MORTS@ashrae.net	

1) Call to Order – William Healy, Chair
Self-introductions and determination of quorum

- Bill Healy is not present due to government shutdown. Dan Snyder (current Vice-chair) acting as Chair for this meeting.
- 6 of 11 voting members are present so the TC has Quorum

2) Membership/Roster review

Bill Healy is rolling off as the chair after the June meeting. Bill has list of current voting members and voting members that are rolling off. He also has a few volunteers for new voting members.

1. Ben Schoenbauer is coming in as vice chair and coming on as a voting member (VM).
 2. Tim Keane has also previously volunteered as a VM.
 3. Eric Truskoski has also previously volunteered as a VM.
 4. Aykut Yilmaz has also previously volunteered as a VM.
 5. Frank Myers is requesting to roll back on as voting member.
- Frank Myers has also volunteered to stay on as standards subcommittee chair.
 - Paul Glanville has agreed to stay on as research subcommittee chair.
 - Amin Delagah is requesting to roll off as a voting member and handbook subcommittee chair. Amin no longer has funding to commit to attending all ASHRAE meetings going forward.
 - Handbook chair will be open and Amin is seeking volunteers. No one volunteered at the meeting or the subcommittee meeting earlier in the day.
 - Secretary position is also open. Jim Earley volunteered to take on that role.
 - Frank Myers notes that this is traditionally a stepping stone to VC and then chair.

3) Review of Minutes of Long Beach, June 26, 2017 Meeting

- There was no quorum at the Long Beach meeting, so the Las Vegas meeting minutes were not approved.
 - Las Vegas minutes were approved via letter ballot between meetings; 9-0-1.
- Jim Earley votes to approve for Long Beach, Frank Myers seconded
 - Discussion: This meeting was an official meeting, but there was no quorum.
 - Passed 6-0-1. With Dan Abstaining

4) Report on TC Chairman's Breakfast

- Dan was not able to attend the breakfast. Frank Stanonik was in attendance and gave a report to the TC.
 - ASHRAE looking to improve the public review comment system. They are working on improving the web-based platform. The improvement will make it easier for submitting, responding and tracking comments. The new system will support sending letter ballots through the platform.
 - The original plan was to be live around now, but there have been delays. The new plan is to debut in late March or early April.
 - Testing has been planned, but that hasn't started yet

5) TAC Section Head Report –

- No reports

6) Committee liaison reports

Omar A Abdelaziz, Research liaison:

- RTARs need full TC voting and approval for both sponsoring and co-sponsoring. If voting at ASHRAE meetings TCs only need quorum to approve. If vote is taken via letter ballot it must have all voting members vote.
- TCs can write a work statement without an RTAR, but make sure it will be well received before skipping the RTAR process.
- There is now an additional RTAR and work statement deadline, March 15
- It is important that RAC gets the disposition form for all research projects in order to assess the value of the award. It's possible that if a TC is reminded about this form 3 times without TC response, then RAC will not fund further work statements

Lynn Werman – Handbook liaison:

- Lynn stressed
 - It is important to meet the deadline
 - Make sure all TC members vote
- Handbook chair Proof review will be in Fall 2018.
- Amin will need to stay active as handbook chair until the Summer Meeting in 2019

7) Subcommittee Reports

a) Programs – Jim Lutz

Winter Meeting, January 2018 Chicago

- TC6.6 had an AHR expo session. “keeping occupants happy and healthy...” with Gary Klein. The session focused on best practices on residential hot water system design.
- TC6.6 also has an ASHRAE session on Wednesday at 11:00. “It's not just the water heater anymore” with Gary Klein, Ron George, and Peter Grant.

Summer Meeting, June 2018 Houston

- TC6.6 has no session currently lined up.
- Seminar, Forums, etc programs submission are due on Feb 9th
 - Subcommittee working on several possible ideas
 - Food Service with Amin
 - Ben Schoenbauer & Dave Kalensky on residential water heating smart controller
 - Co-sponsor with Sspc 41 on uncertainty in methods of measurement examples or possibly on the uncertainty on methods of test

- Co-sponsor with TC 4.7 energy calculations focusing on building simulation models. They typically do not do water heating very well. The session would focus on how they could be better

Winter Meeting, January 2019 Atlanta

- Ideas
 - Back to basics, high level overview of handbook contents, including design/sizing/etc

Summer Meeting, June 2019 Kansas City

- No current plans
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b) Standards – Frank Myers.

TC 6.06 is the lead committee on SPCs 118.1, 118.2, 124, and 146. TC6.06 is co-cognizant on 188, 191, and 206.

- 1) SPC 118.1. Chuck High - MOT for commercial water heaters.
 - Chuck not present, Frank M reporting
 - 118.1 meet yesterday
 - The draft standard is under review.
 - The committee found errors in calculations and missing info. A working group is working to fix these errors.
 - Frank M noted a few major errors, which kicked off this review of all calculations.
 - These errors have been present in old versions. Does that mean that no one uses it? How was this not found?
 - Target to get out for public review prior to Houston
- 2) SPC 118.2. Jim Lutz - MOT for residential water heaters.
 - 118.2 meets tomorrow.
 - The committee is just finishing up responding to comments from public review
 - Jim hopes the responses can be completed at the meeting tomorrow
 - Only a few last comments to address: improving figures, moving draw patterns to annex, stand-by losses
 - Will need to go out for another public review, which is planned to be voted on by the SPC in the next couple months.
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- 3) SPC124- Ben Schoenbauer –MOT for Combined space and water heating.
 - Meets tomorrow AM
 - The committee continues to move forward with the 2 paths approach. Leaving the current version of 124 as one option and creating a new MOT for a test of the full package at one time
 - Will have a substantial presentation from working group
- 4) SPC 146. Frank Stanonik -MOT for pool heaters.
 - Meeting at 10am tomorrow
 - There is a new draft version of the standard for committee to review and discuss
 - Likely will not be voted out at the meeting, but planned via letter ballot or in Houston if necessary
- 5) SPC188/Guideline 12 Frank Myers – Legionella.
 - There has been lots of activity in last 6 months in guideline 12 (last updated in 2000, does not meet up with new spc 188)

- Public review went out, got ~80 discrete comments, which were assigned to working groups
- Working groups to assemble all comments at the meeting at this conference. They hope to vote out to public review at this meeting, or shortly after
 - They are close to consensus

6) SPC 191 Jim Lutz –. Efficient use of water in buildings and mechanical systems

- Meets Sunday morning
- Dealing with comments on 2nd public review
- Should be voted on soon
- Early on in process they removed water heating systems
- They do have a water budget for the building which does include hot water

7) SPC 206: NA

8) 90.1 Frank Stanonik

- TC6.6 Letter ballot in July, appointed Frank as tc6.6 liaison to 90.1. It passed and chair of 90.1 approved. Vote: 8-0-1, chair not voting.
- 90.1 has no water heating proposals currently under development
- 90.1 does require certification and verification of product rating in the mechanical equipment standard, but no parallel requirement for water heating equipment.
 - This will cover water heating in the future. Frank thinks it was intended to originally as well.
- Possible upcoming work on boilers

9) 90.2: Bill Healy

- Bill not present. No one else is attending
- Frank S. did hear notification today about responses to comments that he filed. So they are active and working on comments.

10) 189.1: Gary Klein

- Gary not present. No one else had an update

C) Handbook –Amin Delagah

- There was a training session earlier this meeting for handbook subcommittee chairs.
 - There is a website for doing handbook, but is difficult to use. It requires internet explorer.
 - It does allow for multiple people editing the chapter at the same time
 - Amin would like to meet in person on handbook tomorrow AM. Or else it will be via conference call
- Deadline for draft to be reviewed by ASHRAE is early March
- Only a few updates under review
 - Most are simple and straightforward
 - A couple that need more work
- Amin stressed the ASHRAE's stance is that the Handbook is not a place for research. It should be focused on design guides and higher level information. For example, it should include the equation in the handbook and reference the development work.
- Meeting for sub-committee will be in the next couple weeks. This meeting is for subcommittee review and approval and then needs to be passed up to the TC

D) Research – Paul Glanville is sub-committee chair

- Omar covered everything from the breakfast (see liaison report)
- Three active research efforts

- 1. Acoustic models for fire tube water heater
 - Need a TC6.6 vote to co-sponsor
 - This vote is just to indicate TC6.6 wants to be involved in development of the work scope. The TC can withdraw co-sponsorship later if it desires.
 - This RTAR is an extension of a similar project for water tubes
 - They developed a model for the acoustics for water tubes (boilers) and released the matlab code. This can be helpful in system design
 - The new project scope would evaluate the finding for application to fire tube water heaters as well. Includes lab testing and model development. Would also include verification/calibration if necessary.
 - Cory Weiss present from 6.10
 - Paul Glanville motions for TC 6.6 to co-sponsor RTAR 1843 with TC 6.10, Jim Earley seconds.
 - Discussion: Frank S asks why do we need to do this research? Corey says it's a big deal for modulating systems. This would allow designers to look at the benefits of different burner design scenarios via models instead of the current trial and error approach.
 - Passed 5-0-1 Dan Snyder abstaining
 - Subcommittee will be involved in development of work scope
- 2. Co-sponsor RTAR from TC3.6 – potable hot water temperatures and legionella
 - This RTAR was reviewed by TC6.6. Letter ballot in July had 2 negative votes and no quorum.
 - TC3.6 moved forward without TC6.6
 - 3.6 reviewed at this ASHRAE meeting. RAC comments were such that TC3.6 is bringing the RTAR back into the committee for more work.
 - Research sub-committee will stay involved
 - Tim K. says they will address the comments and resubmit.
 - TC3.6 were told not to have co-sponsors unless they are actively involved,
 - TC3.6 also thinks 90.1 will be co-sponsoring and active in the development of the RTAR
 - They will be moving forward with or without TC6.6
 - Paul will continue discussions with Tim about TC6.6 involvement
- 3. TC6.6 looking at bringing back an older work statement on office building water use
 - It was submitted in 2012, delayed until hotel version was completed. The hotel project is now complete.
 - Sub-committee discussed updates around study design and building selection
 - 8 people are involved in work statement development

E) Website: Michael Slater

- Michael is not here

Liaison reports:

- See previous

8) Old Business

MTG OBB – Jim Lutz – how do occupants affect how energy is used in building

- There are lots of TCs that are involved in the MTG. Jim is the active water heating representative.

- The biggest impact to TC 6.06 is a possible link up between an office survey research project the MTG is developing and the water use in building work statement TC6.6 is developing.
- MTG's typically disband. But this one wants to keep going. They may become a TC or look at other options for continuing on

Other

- Nothing

9) New business

- Katherine Hammock – chair of 90.1 working group in renewable energy. This working group is considering requiring solar, which could potentially include solar thermal. They will be looking for people to be involved and comment on what they put together and they will include solar water heating.
- TC6.6 dinner at planned at the Grille Room at 7:30PM
- ACEEE hot water forum: March 20-22 in Portland with demo day on the 19 or 20th to see new equipment and demos. Also a shameless commerce event for manufacturers to give plugs with audience voting on best presentations. 4 tracks with 7 sessions in each track.

10) Adjourn

- Next meeting June 25th in Houston
- James Earley moved to adjourn. Passed unanimously

Action Items:

- 1) Just after the meeting James Earley volunteered to be the secretary