ASHRAE Technical Committee 2.7, Seismic and Wind Resistant Design
Winter Meeting, Atlanta, GA
15-January-2019

ASHRAE, Inc.
Omni CNN North Tower Juniper
Atlanta, GA
800-THE-OMNI

TC/TG/TRG MINUTES COVER SHEET

TC/TG/TRG NO: TC2.7
TC/TG/TRG TITLE: Seismic and Wind Resistant Design
DATE OF MEETING: 01/15/2019  Location: Atlanta, GA

<table>
<thead>
<tr>
<th>MEMBERS PRESENT</th>
<th>YEAR APPTD</th>
<th>MEMBERS ABSENT</th>
<th>EX-OFFICIO MEMBERS AND ADDITIONAL</th>
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<tbody>
<tr>
<td>Pat Marks</td>
<td>07/01/2016</td>
<td>Greg Meeuwsen</td>
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<td>Matthew Hooti</td>
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<td>Harold Dubensky</td>
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<td>Angela Waters</td>
<td>02/01/2018</td>
<td>Paul Meisel</td>
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<td>Scott Campbell</td>
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<td>Jim Carlson</td>
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<td>Shawn Ohara</td>
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<td>Doug Fitts</td>
<td>07/01/2015</td>
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<td>Panos Papavizas</td>
<td>07/01/2016</td>
<td>Michael Morby</td>
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<td>John Giuliano</td>
<td>07/01/2015</td>
<td>Prasad Naik</td>
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<td>Stephen Duda</td>
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<td>Don Warick, Jr.</td>
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<td>Nate Deibler</td>
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<td>Jim Tauby</td>
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<td>Cesar Eizaga C.</td>
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<td>John Giuliano</td>
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<td>Kenny Hightower</td>
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<td>Karl Peterman</td>
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<td>Andy Coughlin</td>
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DISTRIBUTION:
ALL MEMBERS /CM OF
TC/TG/TRG Section 2SectionHead
TC 2.7 Seismic and Wind Resistant Design

Committee Scope: Technical Committee 2.7 is concerned with fundamental scientific and engineering design principles for seismic and wind resistant design of HVACR equipment and building mechanical/electrical service systems.

Chair: Patrick Marks, Johnson Controls, patrick.c.marks@jci.com
Vice-chair: Matthew Hooti, Isotech Industries, mhooti@isotechindustries.com
Secretary: Angela Waters, Kinetics Noise Control, awaters@kineticsnoise.com
Website: https://tc0207.ashraetcs.org/index.php

1. Meeting was called to order at 3:40 PM with Doug Fitts & Paul on speaker phone
2. All present members and guests introduced themselves. See summary/cover sheet above.

3. Quorum was established with 14 of 15 quorum voting members present.
   - Matthew Hooti is not a voting member
   - Doug Fitts cannot do programs
   - Scott Campbell made the motion and then Matt Clark seconded the motion
   - 8-0-0 CNV to approve the minutes

4. Previous minutes from Chicago were distributed by email. John Giuliano first motion to approve and Matthew Hooti seconded the motion to approve minutes. Revision: Doug Fitts was not at the Chicago meeting. (10) voting members approved, chair not voting.

5. Will need the subcommittee notes from Research, Programs, and Handbook

6. TC Chair’s Report (Patrick Marks)

   Discuss the restructuring of TC:
   - Started in the Finance group and then the CEC (continuing education credits?)
   - The target number of 34 comes from how many afternoons are available and how many rooms are available at each venue
   - Is this number set in stone? No, but they probably will not accept anything over 40
   - Smaller groups having trouble coming up with a quorum.
   - Pat Marks will be forwarding the feedback form to all of the TC
   - Matthew asked Jim Tauby how the title and numbering system will change. Jim said that the naming and the numbering will probably be changing
   - Nothing with ASHRAE will be going on in the afternoon except for the TC meetings
   - How does this affect SPCs? Jim Tauby does not know yet.
   - Jim does not know how standards will be affected
   - We will be TWG for SPC 171 not TCs.
   - If the goal is to hold us accountable to do more work outside of the meetings, then will we have better online access to meetings? Yes, there will be additional Go to Meeting subscriptions.
• There will still only be one company, one vote, the big companies would be tempted to not come to the meetings, having people not coming because of this restructuring is immensely detrimental
• YEA is furious because this is taking away their mentors and not doing any work in the meeting to learn from, they will just be voting
• Even if there is the overlap, there not going to be working on standards, handbook anymore
• What is going to happen with Handbook?
• Do companies want us to spend more time on company time working on ASHRAE outside of the meetings?
• There may become scheduling conflicts with the merge, especially with those who are heavenly involved in several TCs.
• Handbook chapters with voting members, who becomes the Chair and the Vice Chair?
• What happens with voting on Handbook?
• Are we going to have to have separate sub section votes?
• This is happening, the only option is when, Orlando or Austin, 2020 winter or 2020 summer?
• It cannot be done in phases, too much confusion in too short of a time
• Less people will be coming, less registration, less revenue, then there will be even more budget concerns
• Most people would rather their time be significantly reduced, rather than to state the committee no longer exists
• Why would corresponding members come? Excellent point
• What can we do to make this smoother and make it work?
• 2.10 is about the only one that could be easily combined with 2.7
• Jim is going to receive the title and scope of every TC to see who might be able to merge with who
• AHRAE is a grass roots organization: Chapters and the Handbooks
• Pat read the bullet points from the letter re: what needs improved, the 5 things that we need to accomplish. He also read the advantages that would come from this
• We need to be addressing the bullet point and the numbered advantages when we send our feedback in.
• Is there a tool for figuring out which TC are struggling to meet quorum? etc? The activity sheets that are filled out at the end of each meeting are then collected into the dashboard
• Suggestion: was proposed that Sound and Vibration mixing with us, but others said that would not be good
• 90.1 Scott says that they have meetings done every 2 weeks -- 75-125 people
• Consulting Engineers do not pay for the meetings they pay for the continuing education seminars.
• How is this going to help increase best practices, how will this affect the YEA members to learn?
• The amount of conferences will be about the same
• How are we losing our leadership in the industry? We do not see this.
• There will be less seminars submitted, but more approved of the ones that are submitted.
• Pat will send out the entire package from TAC, but it is about page 12 that the really interesting stuff starts.
• When people are not consulted about the change and when it is just forced on them, it makes us respond in a less positive way than collaboration.
• Bert says that they see a need for change, and some see that there needs to be less meeting space needed
• Bert says that one of the suggestions is that we need to have performance criteria for the TCs, then we could control the number of TCs
• Grass Roots are the chapters and the technical committees
• Could use the members lounge as a subcommittee meeting place
• Will become more dominated by commercialization
• Scott sees it in 90.1, in which it is almost all industry members, and hardly any practicing engineers or architects

7. **Honors and Awards** (Steve Duda)

• Jim Tauby was given the Fellow award
• There are some rewards that are due in May 1st.
• Robert Simmons has been nominated for the Distinguished Service Award
• Anyone in mind for a fellow is a long and drawn out process, open ended nomination
• Need to update your Bio’s

8. **Publications Subcommittee** (Jim Carlson)

• **ASHRAE should have done by May**
• Met today to add flooding to the chapter
• Flooding Risk to HVAC & R equipment
• Location of Equipment
• Anchoring of tanks, equipment outside that could be hit with high velocity
• Flood proofing
• Floor resistant materials for a potential flood risk
● What added value can we add as this committee to contribute to flooding in our industry
● The flooding work will be for 2023, so we also have time to work on seismic and wind
● Everyone will be using the ASHRAE online portal to work on the document
● Jim Carlson asked for a QC person for wind, Jim Tauby volunteered to do wind
● Karl Peterman has volunteered to do seismic
● Scott Campbell mentioned that ASCE 7-22 may have major changes for non-structural components, it may involve seismic
● Does the scope of the handbook cover the scope of ACE 7-16? Jim Carlson does not know off the top of his head, he will have to check
● ANSI, it seems like every different manufacturer is using different standards to qualify their isolator housing, etc…
● Should we lobby to get the definitive testing standard for seismic isolators into ASCE 7? Lobbying to get it into 7-22 is a great idea.
● Seismic restraints of isolators
● They might get it into the commentary,
● ASHRAE getting the standards input into IBC.
● SPC 171 is being placed into IBC
● Handbook, VISCMA is currently not referenced, but Jim is OK with it referenced if everyone else is.
● Concern is if the website link path every changes
● Jim Carlson is giving the graphics from FEMA 213 to John Giuliano.
● Went over Karl Peterman’s review of the seismic handbook.
● Group proposed just listing the FEMA 412, 413, 414 etc. and not directing the reader to the VISCMA or FEMA site.
● Should we find all the neoprene references and change to elastomeric to make everything consistent?

9. Research (Panos Papavizas)

General
● A training webinar was held November 5, 2018 on the responsibilities of research Project Monitoring Subcommittees (PMS). A recording of the training session is included as an attachment to this report. Answers to questions that were raised during the session also are attached in a pdf document.
● The Research Subcommittee Chair’s breakfast meeting was held Monday morning, January 14, 2019. Highlights are as follows:
The Research Administration Committee (RAC) emphasized that the Research Manual (available on the ASHRAE website) provides answers to all questions about conducting ASHRAE-funded research. All TC’s, and especially Research Topic Acceptance Request (RTAR) and Work Statement (WS) authors, should become familiar with the document.

ASHRAE is encouraging more co-funding from outside organizations wherever possible.

RAC emphasized the important role PMS’s play in research projects, and consequently, is requiring that all PMS members attend training. Training webinars will be provided twice annually in the fall and spring.

A new workflow process is being developed for research projects that result in special publications. The intent of the new workflow is to involve the Publications Committee and the editor of special publications earlier in the process to ensure publications meet quality requirements and are free of commercialism and bias. The process will include new forms for topic requests (PTAR – Publication Topic Acceptance Request) and work statements (WSP – Work Statement for Publications).

A copy of the RAC Update from the breakfast meeting is included as an attachment to this report.

1692-RP: Effects of Shielding on the Wind Loads on Roof Mounted Equipment

Dr. Murray Morrison, the PI for the project, promised to RAC an article for the journal Science and Technology for the Built Environment by November 30, 2018 or end the grant.

Dr. Morrison has not responded to repeated phone calls and email requests for an update, so it is unknown if a journal article was submitted.

The project can be considered closed.

New Research

An RTAR for investigating the basis of the seismic restraint exemption for components weighing less than or equal to 75 lb that are in-line with a duct system is being prepared by Robert Simmons. The target date for submission of the RTAR to RAC is May 15, 2019.

Attachments

- 2018-11-05 11.58 PMS Training.mp4
- QA’s PMS Training 11.06.2018.doc.pdf
- RAC Update Atlanta 2019.pdf

11. Membership (Robert Simmons)

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<tr>
<th>Name</th>
<th>Appointed Year</th>
<th>Position</th>
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<tr>
<td>Mr Patrick C Marks, PE</td>
<td>07/01/2016</td>
<td>Chair</td>
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<tr>
<td>Mr Matthew M Hooti, PE</td>
<td>07/01/2016</td>
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<td>Mrs. Angela Waters, PE</td>
<td>02/01/2018</td>
<td>Secretary</td>
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<tr>
<td>Mr Stephen W Duda, PE</td>
<td>07/01/2016</td>
<td>Honors Chair</td>
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<tr>
<td>Mr John F Dunlap, PE</td>
<td>07/01/2016</td>
<td>Subcommittee Chair</td>
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<tr>
<td>Mr Panos George Papavizas, PE</td>
<td>07/01/2016</td>
<td>Research Subcommittee Chair</td>
</tr>
<tr>
<td>Mr James A Carlson</td>
<td>07/01/2016</td>
<td>Handbook Subcommittee Chair</td>
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</table>
-All voting members are present except for John Giuliano

-Matthew Hooti needs to roll on, currently, Pat Marks will roll off after Kansas City

-We have asked Matt Clark to come in as secretary

-Panos is going to be retiring, so research chair will be Robert Simmons will take over at least in the interim and Harold Dubensky will be programs

-Jim Carlson will stay on as Handbook

-Matthew left the room, Jim Carlson made a motion to nominate Matthew Hootie

Scott seconded, unanimous with chair voting

- Harold Dubensky interested in rolling on
- Is Nate Deibler on as a corresponding member?
- We will double check after the meeting

12. Liaisons:

-**ICC Scott Campbell**: Group B closed for code proposals at 3:00 am this morning,
  -ASCE 16 was approved las cycle
  -IBC was going to try to get the residential into the IBC
  - will be published toward the end of February
  -the hearings will be in March and April

-**FEMA**: all the same

-**ATC**: Jim Carlson has nothing to report

-**AHRI**: working on 13-10, recently reconfigured a draft, & hopefully at the end of the year will be posted on the website

-**VISCMA** celebrated 20-year anniversary, Paul Meisel is retiring, since Houston, we uploaded 4 new white papers,
  - Meeting on Saturday, set up the month by month bulletins
  - Set up the omega factor paper as the next bulletin
  -April 30th will be the introduction to vibration webinar on April 30th
  - FAQ section into a fact-finding tree

-**SMACNA** – liaison is not here, there was a question about the origin of the 35 lb load and they do not have any answer for that, they are currently working on their standard
  - they do not know when it will be done

-**MMS** : revamping the standard, vice chair of MMS Greg is working on the standard, not too many updates, pretty much in its infancy.
  - Next MMS meeting is in February, encourage members to get involved in that work.
  -ASHRAE is not mentioned in the Master Spec, it is just OSHPD and SMACNA
13. **Old Business:** None.

14. **New Business:**
   - Time for next meeting Jim Carlson wants 2 hours for flood
   - Panos wants time not more than 1 hour depends on RTAR
   - Robert for Programs: 30 minutes to 1 hour
   - Don Warick asked about the availability of education with new restructuring
   - Scott Campbell went over 2.10, Guideline 29, final stages of ASHRAE review
     - ASHRAE 2.6 Matthew is the official liaison: vibration isolation case study by Jerry Lilly by HVAC units with pure tones
     - was on a conference call with 9.4, and now 9.8 air conditioning applications
   - fire and EMT stations and their academies, flooding will be included in that new chapter
   - Karl spoke on rogue committee lead by guys over at Armstrong who were leading the testing
   - ASCE 7-22 now meeting pretty regularly 2-3 times a year & subcommittee for both non-structural committee & non-building structures
   - They are going to try and have members break up and have sub committees
   - ATC is being referenced, funded through FEMA, ATC had done quite a large report.
   - There is a new equation for Fp, a lot of people want to change to the new equation, that is more complicated and requires more information about the meeting.
     - Here is the first shot at the new equation
   - cooling towers may change as well,
   - People who do lots of Mechanical stuff needs to address that

15. **Next Meeting:** Kansas City, June, 2019, Please note that it is a week earlier than it usually is.

16. **Adjournment:** Jim Tauby made motion to adjourn, Scott Campbell seconded the motion.