

**ASHRAE TC 01.08
Mechanical Systems Insulations
DRAFT Minutes**

**2023 ASHRAE Annual Meeting
Tampa Marriot Waterside**

Monday 6/26/2023, 4:15 - 6:30 PM EDT
Tampa Marriott Waterside, Meeting Room 2

**Subcommittee Meetings:
Monday 6/26/2023, 1:00 - 4:00 PM EDT**
Tampa Marriott Waterside, Meeting Room 2

1. Call to order – 4:15PM

Diana Fisler

Attendees: D. Fisler, H. Sharif, D. Peil, C. Petty, B. Brayman, A. Neely, A. Cusick, G. Hart, M. Sylvester, T. Gordon, M. Shumate, Art Geisler, Cory Metzger.

2. Review Scope

TC 1.8 is concerned with the application and performance of thermal and acoustical insulation systems used on pipes, tanks, equipment and ducts.

3. ASHRAE Code of Ethics Commitment

“In this and all other ASHRAE meetings, we will act with honesty, fairness, courtesy, competence, integrity and respect for others, and we shall avoid all real or perceived conflicts of interests.” See full ASHRAE Code of Ethics: <https://www.ashrae.org/about-ashrae/ashrae-code-of-ethics>

4. Introductions

All

Determination of a quorum

Darrell Peil

VOTING MEMBERS FOR THIS MEETING (Need (7) or ½+1 for a Quorum)

| | | | |
|---------------------------------|-----------|------------------|-----------|
| Diana Fisler (Chair) | 6/30/2026 | Bill Ronca | 6/30/2023 |
| Heather Sharif (Vice Chair) | 6/30/2024 | Pat Noonan | 6/30/2024 |
| Kartik Patel (Handbook and Web) | 6/30/2024 | Andre Desjarlais | 6/30/2024 |
| Alan Neeley (Program) | 6/30/2024 | Art Geisler | 6/30/2024 |
| Gordon Hart (Research) | 6/30/2026 | Charlie Petty | 6/30/2026 |
| Steve Sanders | 6/30/2026 | Bill Brayman | 6/30/2026 |

5. Agenda approval – A. Neely 2nd, passed unanimous

All

6. Chair’s Report

Diana Fisler

Announcements and Highlights from TC Chairs Breakfast Meeting - Cory Metzger

- Training on using TC activity form.
- TC1.8 doing a good job.
- New standing committee GTIC – Global activities related to our industry.
- 4 Standards devoted to this industry.
- Stephanie Reinisch is responsible for working group(s).
Last meeting as Section Head for TC1.8.

- Jason Atkison will be new Section Head.

7. Liaison reports

Liaisons

- a) Section Head
Outreach program to Washington to grow outside USA.
Handbook update?
- b) RAC
ASHRAE is going to acquire carbon reduction organization; MEP2040 from Carbon Leadership Forum. Carbon leadership forum. Push to drive carbon to lowest possible level.
Going into task force for carbon reduction.

8. Approval of minutes from Winter Meeting

Diana Fisler

Bill Brayman motion to accept. A. Neely seconded, with correction to spelling of his name. Motion passes unanimously.

9. Membership/Roster

Darrell Peil

Starting August 1st: 11 regular voting members. Bill Ronca and Steve Sanders rolling off. Diana reviewed this data. M. Shumate to added as non-quorum voting member by request of D. Fisler.

| Name | Role | Voting | Name | Role | Voting |
|----------------|----------------|--------|------------------|--------|--------|
| Diana Fisler | Chair | Yes | Pat Noonan | Member | Yes |
| Heather Sharif | Vice Chair | Yes | Art Geisler | Member | Yes |
| Darrell Peil | Secretary | No | Andre Desjarlais | Member | Yes |
| Gordon Hart | Research Chair | Yes | Charlie Petty | Member | Yes |
| Kartik Patel | Handbook Chair | Yes | Bill Brayman | Member | Yes |
| Alan Neely | Program Chair | Yes | Monroe Shumate | Member | NQ |
| Kartik Patel | Webmaster | Yes | | | |

10. Subcommittee reports

a) Programs

Alan Neely

Discussion during Main

Program to be submitted under Track 8 Hydronic Systems for Chicago. Track looks at all hydronic systems devoted to HVAC. Panel of Lessons Learned/Good Better Best as Industry Experts. Presentation to inform ASHRAE membership. Catchy, attention-grabbing title. Need input for abstract. Participants: Heather Sharif, Darrell Peil, Alan Neeley, Moderator: Kartik Patel.

Title Ideas:

- Let's Keep Wet Systems Dry
- Difficult to Keep Warm in Wet Winter Coat
- No Sweat; Save Energy

ABSTRACT:

Pipe and equipment insulation system failure is not an option. The right solution is not always obvious.

Needs to be submitted by August 2, according to Joe Chow, Hydraulics.

Alan Neely moves to approve panel on hydronic insulation systems for Chicago. Monroe Shumate seconds. Motion passes. Chair abstains.

Future Directions:

- Gather information on Embodied and Operational Carbon

- NZE/NZC
- Retrofit and Decarbonization

Programs Subcommittee Minutes

Alan Neely

Call to order: A. Neely – 1:14 PM

Attendees: (C. Petty, H. Sharif, M. Sylvester, B. Brayman), D. Fisler, G. Hart, D. Peil, M. Shumate, A. Neely, H. Ahern

Ideas for presentations are welcome.

Incoming President – Climate Change/Net Zero/??

Tracks for Chicago –

- 1) Fundamentals and Applications – Offers wide opportunity – Most TC's try to fit this track.
- 2) HVAC Systems & Eqpt.
- 3) Refrigeration and Refrigerants
- 4) Decarbonization
- 5) Hydronics
- 6) Ventilation/IAQ
- 7) Comfort/IEQ
- 8) Controls
- 9) Project Delivery Methods

Chicago is coming up next, can post deadlines on Basecamp. Possibly combine with other TC's?

Maybe Hydronic/Chilled Water delivery.

Princeton University project? TC6.2 District Energy. Had meetings 2 days ago. Touch base with TC Chair to see what the joint opportunity might be? M. Shumate – Good/Better/Best, failure modes, how to make sure insulation is appropriate, you are getting what you are paying for? Be careful about maintenance/installation. What about selection? Best practices information/presentation. Do's/Don'ts/Practical application. Lessons learned, Insulation 101, dusting off old and refresh for this session.

Generate interest through Hydronics is the preferred avenue. Alan would prefer to work with the Hydronic track. Knauf, OC, JM willing to help. Try to include Kartik Patel.

Panel format? Single presentation? Multiple presentations? Knauf – Peil, OC – Neely, JM - Sharif

Monroe Shumate – Timelines for dropdead dates?

August 2 – Proposals are due

Title?

Brayman – Vegas/ASHRAE presentation on Chilled Water Systems. Case study.

- Discussion of design requirements based on realities of operations.

Charlie – How do you determine which of the 6 platforms is used.

Clarify June 28 Submission or August 2 Proposal.

Go forward with panel? Be ready for above ambient and below ambient operations/situations.

Decarbonization – For the future.

Decarbonization task force. Blake Ellum. Broken into 6 categories.

Does our TC should have a decarbonization representative?

Alan to have a tentative plan for Main meeting this afternoon.

ENDED: 1:58PM

b) Research

Gordon Hart

Discussion during Main

Report from PMS Chair on RP1703 WHAT IS RP TITLE?. Moving slowly and deliberately. B. Brayman visited contractor recently. Project focused on FEF, Vapor Retarder Mastic, and Vapor Retarder jackets. Discussion over mastic issue of correct thickness. Things moving forward to complete testing.

RTAR 1871 RTAR TITLE?

RAC would like to have data from RP1703, before submitting for approval again.

Discussion surrounds other prospective research topics.

Research Subcommittee Minutes

Call to order: 2:17

Attendees: (C. Petty, B. Brayman), D. Fisler, G. Hart, D. Peil, M. Shumate, A. Neely, H. Ahern, A. Cusick

Gordon Hart – RP1703 Update, ongoing with R&D Services

C. Petty – R&D running project. B. Brayman has visited R&D, sent report to PMS.

Two bigger items – Elastomeric foams – seams needed more care on installation. Seams, butt ends. Mastic – thickness Cylindrical sections not a well done with mastic. R&D says this can be dealt with.

Change on Cellular Glass – change attachment from filament tape to using SS banding to withstand chamber conditions.

Overall, progress is headed in right direction.

B. Brayman – Key issues – elastomeric needs high quality seal. Dealing w/performance of mastics – uniform and correct thickness is needed.

Gordon H – Reinforcing skrim – embed completely in mastic. Is the mastic thickness related to the skrim fiber diameter or overall skrim thickness?

Why is R&D Services being a bit hard to understand on the mastic thicknesses? Manufacturer and Brayman had input.

Monroe – R&D trying to get the thickness correct.

Find Metrology for WFT and DFT.

Using field practice and trying to match cylindrical thickness v. E96 thickness.

RTAR 1871 Hygrothermal modeling – premature to move forward.

Michael Joyce not in position to present any data

Next steps for RP1703 – Tests going on, other samples staged, some specimens not fully prepared. Application has to be more specific. Variables to vapor retarder mastics. Michael owes regular reports to us. Return from vacation and Charlie will touch base for report.

NEW IDEAS FOR RESEARCH:

Acoustics – New materials and applications. Stick with Insulation impact, don't go down the road of systems. Monroe – Marine surface vessels work done several years ago. Gordon -- Surface Burning Characteristics of assemblies with varying components.

CONCLUDED: 3:19 PM

c) Handbook

Diana reporting for Kartik Patel

Discussion during Main

Update on submittal. Proofs to be delivered in two weeks. Target go-live date no later than end of August.

Touched on some additional future updates. Touch on carbon, EPD's, may use existing resources and references.

May add information from Alec Kusic's ASHRAE article.

We have ongoing bit of work to offer minimum R-values table for pipe insulation.

Handbook Subcommittee Minutes

Call to order: Diana, 1:00

Attendees: (C. Petty, H. Sharif, M. Sylvester, B. Brayman), D. Fisler, G. Hart, D. Peil, M. Shumate, A. Neely, H. Ahern

No update as of today from ASHRAE. Still pending off-year updates. Applications Handbook is severely behind.

Ideas for next handbook revision – RP1703, Buildings XV, Embodied v. Operational Carbon, Articles in market.

D. Fisler recommended we get past the online revision, then dig into the next revision of the print copy.

More ideas relating to updating chapter.

G. Hart suggested a chart of R-values of all insulation materials. Gordon presented this a year ago. Table of minimum pipe insulation thicknesses now exists, based on C547 thermal conductivities. Replace the table of minimum thicknesses with R-values. Keep the table of thicknesses, though. M. Shumate related that this work has already been approved for inclusion in the next revision. Gordon does not have to resubmit table.

Alex Kusick ASHRAE article regarding insulation for chilled water systems without a vapor retarder jacket. Reference article in Handbook.

Peil to find references to air distribution system acoustics in other volumes.

Conclude Meeting: 1:13 PM

11. Web site and Basecamp

Most using Basecamp successfully. Maybe some website updates that need to be addressed. Document naming convention to be addressed.

12. Old Business

Changes to timing of subcommittee meetings. What was impact? Positive comments. All had positive reasons, especially the West Coast.

13. New Business

Digital access for virtual meetings. ASHRAE will offer hybrid for main, but not subcommittee. ASHRAE may support WebEx prior to conference. Not during conference. ASHRAE is trying to determine a solution to the challenge. There may be a push to hold certain functions in-person v. virtual. Identify potentials to solve problem and send to Cory. No drop-in guests if all virtual. Would have to increase committee promotion if all virtual. ASHRAE is looking for ways to promote in-person attendance.

Monroe – Hybrid is highly beneficial. One-on-one personal meeting is good, but virtual option is valuable. MOC rules? In-person v. virtual voting. All have to be able to participate. MOC rules have been changed to accommodate hybrid.

Used Teams. Use ASHRAE for Main, and Teams for Subcommittee? No. Stick with a single platform.

Gordon no longer chairing Research. Will stay involved as PMS member, and committee member. Contact D. Fisler to volunteer to head this subcommittee.

14. Adjourn – G. Hart. H. Sharif. Unanimous. 5:35PM