



1791 Tullie Circle, N.E./Atlanta, GA 30329
404-636-8400

Technical Committee (TC) MINUTES COVER SHEET

(Minutes of all Meetings are to be distributed to all persons listed below within 60 days following the meeting.)

TC No. ASHRAE TC 01.08

DATE: 11 January 2022

TC TITLE: MECHANICAL SYSTEMS INSULATION

DATE/Time of MEETING: 11 January 2022 @ 3 pm EST
MEETING

LOCATION: VIRTUAL

Voting MEMBERS PRESENT	Vote/ YEAR APPTD	Voting/ MEMBERS ABSENT	Vote/ YEAR APPTD	EX-OFFICIO MEMBERS AND ADDITIONAL ATTENDANCE
Monroe Shumate - Chair	Yes/2017			Diana Fisler – Vice Chair
Heather Sharif - Secretary	Yes/2020			Natalia Maximova
Bill Ronca	Yes/2019			Carston Rode
Art Geisler	Yes/2020			Nick O’Kane
Kartik Patel – Handbook & Webmaster	Yes/2020			Shayne Spence
Pat Noonan	Yes/2020			Gordon Hart - Research
Andre Desjarlais	Yes/2020			Charlie Petty
Alan Neely - Program	Yes/2020			Darrell Peil
Steve Sanders	Yes/2019			Alec Cusick
EX-OFFICIO MEMBERS AND ADDITIONAL ATTENDANCE	Craig Messmer		Willis (Bill) Brayman	Charlie Haak
	Eric Edman		Louis Walton	Marcus Bianchi

Chair called the TC to order at 1:00 PM EST. The Agenda was projected and emailed.

Members & Guests: Attendee information was taken from the ZOOM meeting login information.

ASHRAE Code of Ethics Commitment: – TC Chair – Monroe Shumate

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 Code of Ethics: <https://www.ashrae.org/about-ashrae/ashrae-code-of-ethics>.)

Membership:

There was a total of 9 voting members present during the meeting. A quorum was achieved. There were 15 non-voting members present for all or part of this meeting.

Approval of Agenda:

Agenda for this meeting was approved by a vote of 9/0/0.

Minutes:

Minutes from the virtual meeting were briefly discussed. Motion was made by Andre Desjarlais and seconded by Diana Fisler. Motion passed 9/0/0 with voice approval at 2:04PM EST.

TC Membership (Monroe Shumate)

- Voting Members rolling off June 30, 2022: Monroe Shumate.

Liaison Reports:

None

Section 1 Head – Craig Messmer and Corey Metzger)

Research Subcommittee (Gordon Hart - Chair):

On January 11, 2022, 12 members and guests of TC 1.08 met virtually to discuss research activities. As the Research Subcommittee Chair, I turned the meeting over to Charlie Petty, who is the Chair of the Project Monitoring Subcommittee (PMS) for 1703-RP: “Performance of Vapor Retarder Systems Used on Mechanical Insulation”. Charlie then turned the meeting over to Michael Joyce of R&D Services, the laboratory which has been awarded the contract.

Michael gave a recent history of this research project, how it was supposed to have been formally awarded in 2022 but then several months ago, ASHRAE unexpectedly asked R&D Services to start in the last quarter of 2021. They settled on a start date of November 1, 2021, and R&D Services had to move quickly to get the project started. Michael reported that his lab has been busy procuring insulation and vapor retarder materials that they will need. He also stated that his lab has lots of experience testing insulation in cylindrical form so, as I understood it, they can start testing per EN 13469 relatively quickly. He entertained questions from the Research Subcommittee members. This project is scheduled for 12 months duration, which at this time would have it be complete by October 31, 2022. Michael said that R&D Services did not yet have a signed contract from ASHRAE. Michael said that he would contact Michael Vaughn and Donna Daniel at ASHRAE. **Note:** By the end of the meeting, Charlie informed me that Michael had done so, and that R&D Services had already received a revised contract with adjusted dates for signature.

I brought up the issue of Research Topic Acceptance Request (1871-RTAR), “Hygrothermal Modeling of Below Ambient Pipe Insulation Systems in Both Buildings and Refrigeration Systems”. I showed a letter which we received from Michael Vaughn dated January 23, 2019 (i.e., three years ago) in which he stated that, “We would recommend that 1703-WS start and get meaningful data before

this RTAR proceeds.” I suggested that the Research SC plan on renewing effort on this RTAR at the June 2022 meeting in Toronto if not before then. While there was general consensus that this was a good idea, and Michael Joyce said that R&D Services should have generated some meaningful data by then, one member, Andre Desjarlais expressed reservations about the use of hygrothermal modeling for cylindrical vapor retarder shapes (i.e., insulation over a cold pipe with a sheet or film vapor retarder). I said that we would look into this situation in greater depth, between now and June. As there were no new discussion topics, we adjourned the meeting.

Handbook Subcommittee: (Kartik Patel - Chair)

Virtual meeting was held on January 11th at 1400 with 18 number of participants and the following handbook committee members were present: Monroe Shumate, Heather Sharif, Bill Brayman, Bill Ronca, Darrell Peil, Pat Noonan, Diana Fisler.

Briefly reviewed the November 4th, 2021, handbook committee meeting.

Discussion on Table 2 – “Minimum Pipe Insulation Thickness”

Whether to include R-Values rather than minimum insulation thickness. R-Values would be performance based. It was agreed that Gordon would provide a table based on R-Values for discussion at an upcoming Handbook committee meeting.

Is the committee working with the correct version of the handbook chapter? A question by Bill Brayman as issues were experienced with the publishing of the chapter by ASHRAE. Bill will provide the chapter versions to the chairman for review and if there are issues discuss with Heather Kennedy at ASHRAE.

Discussion on engineering guidance for pipe assemblies such as flanges, fittings such as grooved brought up by Eric Edman, BR+A engineer and Darrell Peil. This is an issue, but it is an application issue not an insulation thickness issue. The committee will address with guidance rather than specific information.

Will review the on-line and handbook publishing cycle for the chapter with ASHRAE.

Next Handbook Committee Virtual Meeting: January 17th at 2 pm Eastern.

Program Subcommittee (Alan Neely - Chair):

Meeting occurred on 1/11/22 from 12 to 12:20 Eastern time with 18 people in attendance.

There were discussions about assembling a seminar panel on CUI for Toronto ... Andre, Natalia, Heather and Eric E expressed an interest in serving on the panel. Alex did not know if he could participate on the panel. I informed the team members that I will assist in submitting the abstract application pending that they assist in answering some of the basic questions on their seminar.

Track 1

Fundamentals and Applications: Fundamentals are the foundation for understanding applications in engineering. Key components of ASHRAE fundamentals include thermodynamics, psychometrics, fluid and mass flow. This track provides opportunities for papers and presentations of varying levels across a large topic base. Concepts, design elements and shared experiences for theoretical and applied

concepts of HVAC&R design are included.

Track Chair: Erik D Sanchez esanchez@prmech.com

Track 2

HVAC&R Systems and Equipment: HVAC&R systems and equipment are constantly evolving to address the changing requirements of the built environment. Papers and programs in this track focus on the development of new systems and equipment, improvements to existing systems and equipment and the proper application and operation of systems and equipment.

Track Chair: Marites Calad mcalad@norman-wright.com

Track 3

Research Summit: Active research, and the exchange of those research findings, are critical to the development of our HVAC&R industry and built environment. The 9th annual research summit invites researchers to share those results, including ASHRAE-sponsored research and research of interest to the ASHRAE community. Researchers are invited to present papers, extended abstracts, seminars, forums or participate in panel discussions. The Research Summit includes a partnership with ASHRAE's archival journal, *Science and Technology for the Built Environment*.

Track Chair: Brian Fronk brian.fronk@oregonstate.edu

Track 4

Connected Buildings, Connected Communities: As buildings become smarter, and as sensor systems, internet connectivity and data collection become more ubiquitous, there are substantial opportunities to improve the performance and efficiency of buildings. Similarly, as renewable energy resources, including wind and solar energy and energy storage, becoming increasingly common, buildings can be used as electric grid assets, to strategically support energy efficiency and demand flexibility. To accomplish this requires many stakeholders, coordinated efforts and a diversity of buildings and buildings systems components and controls.

Track Chair: Ahmed Abdel Salam ahmed.abdel-salam@usask.ca

Track 5

Cold Climate Building System Design, Operation and Resilience: The design, construction and operation of buildings in cold climate regions which experience extreme winter conditions require specific considerations for the building envelope and HVAC&R systems and resulting thermal and hygrothermal performance. Resilience in the face of extreme temperature shifts, and in some cases remoteness and permafrost, should be considered to ensure building maintain interior design conditions. This track covers efforts and topics specifically focused on buildings, building systems and equipment in cold, arctic and subarctic climates.

Track Chair: Davide Ziviani dziviani@purdue.edu

Track 6

IAQ, Energy Use, Comfort and Health of Sustainable Buildings: Indoor environmental quality, energy use and efficiency and occupant comfort and health are all priorities buildings must balance. Sustainability priorities in buildings continue to increase, requiring careful consideration of how to achieve sustainability goals without sacrificing other building functions and owner/operator priorities. This track covers each of these topics, and how they interact and impact one another.

Track Chair: Rafi Karim rkarim@aeieng.com

Track 7

Professional Development and Education: As members of a professional organization, we not only participate for the great value of technical exchange, but also the interpersonal exchange. We recognize that the single greatest strength of our organization is its membership. This track is designed to allow those professionals and educators an opportunity to develop and share knowledge in the areas of presentation skills, leadership, team-building, understanding various business operations, lean collaboration strategies, interpersonal skills, etc., and an opportunity for educators to share knowledge in the teaching and education of current and future generations of professionals. Submissions to this track may lend themselves to interactive session types such as workshops, panels and forums.

Track Chair: Maggie Moninski maggie.moninski@gmail.com

Track 8

Buildings in the Aftermath of COVID-19: The pandemic has had significant impacts on how buildings are used, and the priorities associated with building operations to ensure a healthy environment for occupants. More people are working remotely; commercial building interior design and functionality and occupant use of these buildings, ventilation and system needs and building owner, operator and occupant priorities have been impacted. This track covers these topics as our buildings transition to design and operation in the aftermath of the pandemic.

Track Chair: Andy Cochrane acochrane@industrialairinc.com

Upcoming Paper and Proposal Deadlines:

Wednesday, January 05, 2022: Conference Paper Accept/Revise/Reject Notifications

Thursday, January 06, 2022: Website Opens for Seminar, Workshop, Panel, Debate, Forum and Extended Abstract Proposals

Friday, January 14, 2022: Revised Conference Papers/Final Technical Papers Due

Thursday, February 17, 2022: Extended Abstract Paper Due

Thursday, February 17, 2022: Program (Seminar, Forum, Workshop, Debate and Panel)

Proposals Due

Friday, February 18, 2022: Conference and Technical Paper Final Accept/Reject Notifications

Tuesday, February 22, 2022: Program Submissions Due

Friday, March 18, 2022: Extended Abstracts Accept/Reject Notifications

Friday, April 01, 2022: Debate, Panel, Seminar, Forum, Workshop Accept/Reject Notifications

Webmaster Report (Kartik Patel):

TC1.08 website, <https://tc0108.ashraetcs.org/>

The TC1.08 website has been updated with the latest meeting information.

New Business:

Adjournment:

Motion for adjournment by Bill Brayman, seconded by Kartik Patel with voice approval at 3:55 p.m., EDT.