



1791 Tullie Circle, N.E./Atlanta, GA 30329

404-636-8400

**DRAFT**

**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 4.1 DATE 6/25/2021

TC/TG/MTG/TRG TITLE Load Calculation Data & Procedures

DATE OF MEETING Friday 6/25/2021 LOCATION Virtual

MEMBERS PRESENT	YEAR APPTD	MEMBERS ABSENT	YEAR APPTD	EX-OFFICIO MEMBERS AND ADDITIONAL ATTENDANCE
Jungjuan (Dove) Feng	2020			Dakshitha Karunaratne (PCM)
Larry Sun	2020			WenBin Ng (PCM)
Rachel Spitler	2018			Charles S Barnaby (CM)
James Pegues	2017			Akshay Bhargava (CM)
Glenn Friedman	2019			Liam J Buckley (CM)
Som Shrestha	2019			Charlie D Curcija (CM)
Jeffrey Spitler	2020			Suzanne LeViseur (CM)
Robert Doeffinger	2019			Elyse M Malherek (CM)
Brian Rock	2020			Danielle Monfet (CM)
Steven Bruning	2018			Stephen B Roth (CM)
				Christopher K Wilkins (CM)
				Buzz Wright (CM)
				James S Bennett (SH)
				Ardeshir Moftakhari (CM)
				Bassam Basil (PCM)
				Minoo Mehdizadeh (V)

**DISTRIBUTION: All Members of TC/TG/MTG/TRG plus the following:**

TAC Section Head: James S Bennett	SH4@ashrae.net
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All Committee Liaisons As Shown On TC/TG/MTG/TRG Rosters (Research, Standards, ALI, etc.)	Research: <a href="mailto:natascha.milesi-ferretti@nist.gov">natascha.milesi-ferretti@nist.gov</a> ; Handbook: <a href="mailto:datadigm-analytics@outlook.com">datadigm-analytics@outlook.com</a> Staff: <a href="mailto:shammerling@ashrae.org">shammerling@ashrae.org</a>
Mike Vaughn, Manager Of Research & Technical Services	MORTS@ashrae.net

Note: These draft minutes have not been approved and not the official, approved record until approved by the TC.



# ASHRAE Technical Committee 4.1

## ASHRAE TC 4.1 Load Calculation Data & Procedures

### Full Committee Agenda

2021 ASHRAE Summer Meeting  
Virtual Conference

1. **Call to order at 12:05 PM.** Jingjuan (Dove) Feng

2. **ASHRAE Code of Ethics Commitment** Jingjuan (Dove) Feng  
*“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>)

3. **Roll call** Rachel Spitler

JingJuan Feng (Present)	06/30/2024	Robert Doeffinger (Present)	06/30/2023
Rachel Spitler (Present)	06/30/2022	Brian Rock (Present)	06/30/2024
James Pegues (Present)	06/30/2021	Jeff Spitler (Present)	06/30/2024
Glenn Friedman (Present)	06/30/2023	Larry Sun (Present)	06/30/2024
Steven Bruning (Arrived after roll call)	06/30/2022	Som Shrestha (Present)	06/30/2024

4. **Introductions** All

- A sign-in sheet was available virtually.

5. **Review Scope and Vision Statement** Jingjuan (Dove) Feng

- Scope: TC 4.1 is concerned with the identification and compilation of engineering data and the development of procedures for calculating heating, cooling, refrigeration and ventilating loads of structures.
- Vision Statement: Provide practitioners with dynamic and robust load calculation procedures that serve as the basis for the design of resilient buildings. There was some discussion about the use of “dynamic and robust” in the vision statement. The decision was made to take this up via email and to vote via email after discussion.

6. **Agenda additions** All

- No agenda additions were proposed.

7. **Liaison reports (as they arrive)** Liaisons  
a. Section Head James Bennett

- Suggests looking at scope once a year to make sure it hasn’t changed.
- Suggests looking at a short vision statement that reaches for a destination (“no verbs, e.g. dynamic and robust load calculation procedures for the design of resilient buildings”).



## ASHRAE Technical Committee 4.1

- Supports creating an executive subcommittee to work through all that.
- ASHRAE wants TCs to create MBOs (Management by Objectives); they're supposed to align with items in ASHRAE's strategic plan (goals, subgoals). An example is on Basecamp. MBO should be updated once a year.
- Victor Goldschmidt's leadership training videos (leadership vs. management) are available; can get PDHs for the locks and introspections (homework assignments).
- Webmaster role will be expanded to include Basecamp management (that access should be updated once a year). Access should be restricted to provisional corresponding members and above.
- New roster takes effect July 1<sup>st</sup>.
  - b. Chapter Technology Transfer Christopher Adams
  - c. Research Natascha Milesi Ferretti
  - d. Handbook Bass Abushakra, PhD
  - e. Staff, Research/Tech Services Steve Hammerling
  - f. TAC Chairman Dustin Meredith

### 8. Chair's Report

Jingjuan (Dove) Feng

- a. Announcements from TC Chairs Breakfast Meeting
  - i. TC Re-organization update
  - ii. George B Hightower Technical Achievement Award– Next due date Sep 1
  - iii. Functional Group (FG) motions: New form to submit motion to TAC for consideration. Intent to give FGs a method to require TAC response, report ideas, etc.
  - iv. Interim meetings – new announcement procedure
  - v. Decarbonization Task Force is formed
  - vi. ASHRAE strategic plan extend through 2025

### 9. Approval of minutes from 2021 Virtual Winter Meeting

Jingjuan (Dove) Feng

- Approved through email ballot 3/25/21: 10-0-0-0-CV.

### 10. Subcommittee reports

- a. Research Som Shrestha
  - i. Ongoing research activities:
    - RP 1816 is the only ongoing research project; 4 WS are active, but all are on-hold. WS 1923 is ready to go to bid once ASHRAE is ready, WS 1850 is being rebid.
  - ii. New:
    - TC has been asked to co-sponsor TC 6.5's RTAR; we are waiting for a formal request – someone will reach out to Peter Simmonds.
    - TC has also been asked to review ASHRAE Special Publications by the end of the month; we are finishing this up (Item 4 is ready; others in progress).
    - TC 4.7 also reached out about revising and reissuing the Loads Toolkit.
  - iii. New suggestion on “historical load validation” or “historical load extrapolation” – from Travis English (Kaiser Permanente Director of Engineering)
    - Kaiser has tons of data from their ~200 buildings, very detailed info for about 3 years. They are exploring using the data to validate their design loads and equipment sizing. They are willing to donate data if someone has any research into this or if there is a need.



## ASHRAE Technical Committee 4.1

- Consensus was to reach out and ask for some more specific data & correlated drawings to see what could possibly be used with it.

iv. Other suggestion?

b. Programs

Rachel Spitler

i. New programs proposed

- See the Programs subcommittee report for proposed programs.
- Brian Rock moved to proceed with proposed programs, Glenn Friedman seconded – Final vote was 8-0-1-1 CNV.

ii. Other suggestions?

- None taken up at this time.

c. Handbook

Jim Pegues

i. In the 2021 Handbook, the old chapter was published instead of the new chapter; new chapter content was misplaced when the server migrated. Other TCs also affected include 4.7, 2.9, 1.1, etc. There should be errata issued and PDFs updated.

ii. 2025 Handbook update timeline.

- Looking for volunteers to review chapters.

iii. Cool Roof Rating Council recommend adding material

- Discussion was that this might be better integrated with Application chapters, not Fundamentals chapters – Applications chapter dealing with building envelope, especially cool roofs. Jim will recommend this to the CRRC.

iv. Research needs to update handbooks

d. Standards

Glenn Friedman

- Up to date, nothing to report.

e. Web site

Jim Pegues

- Web site is up-to-date, nothing new to report.

### 11. Old Business

Jingjuan (Dove) Feng

- There was no old business.

### 12. New Business

Jingjuan (Dove) Feng

a. Review committee objectives for 2021-2022

b. Special Publication response to ASHRAE

i. Suggestion for response

- ii. TC 4.7's effort to update HVAC Toolkit publication from 1993, and recommend include load calculations (contact from TC 4.7: Ralph Meuhleisen and Jeff Haberl)



## ASHRAE Technical Committee 4.1

ASHRAE Special Publication	Year Publ	Committee or Project
Updating the ASHRAE/ACCA Residential Heating and Cooling Load Calculation Procedures and Data (RP-1199 Source Code and Data) CD	1996	TC 4.1
Load Calculation Applications Manual, 2ed, SI version	2014	TC 4.1; RP-1616
Load Calculation Applications Manual, 2ed, IP version	2014	TC 4.1; RP-1616
Annotated Guide to Load Calculation Models and Algorithms	1996	TC 4.1, 4.7

13. Adjourned at 1:46 PM

Jingjuan (Dove) Feng



# ASHRAE Technical Committee 4.1

## Meetings

### TC 4.1 Load Calculation Data and Procedures

Friday 6/25/2021, 1:00 - 3:00 PM EDT

[Link: https://ashrae-org.zoom.us/j/96593307733?pwd=ZUZEdmw4UDAvbkpWeFBSaVBKK3pDZz09](https://ashrae-org.zoom.us/j/96593307733?pwd=ZUZEdmw4UDAvbkpWeFBSaVBKK3pDZz09)  
Meeting ID: 965 9330 7733 Passcode: 265702)

### TC 4.1 Subcommittee Meeting:

Tuesday 6/08/2021, 1:00 - 3:00 PM EDT  
Virtual meeting

## Programs

None

## Membership/Roster

Starting August 1<sup>st</sup>: 2022 (All voting members and/or subcommittee chairs)

Name	Role	Voting
JingJuan Feng	Chair	Yes
Rolando Legarreta,	Vice Chair	Yes
Rachel Spitler	Secretary/ Programs Subcommittee Chair	Yes
James Pegues	Webmaster/Handbook Subcommittee Chair/BIM Liaison	No
Glenn Friedman	Standards Subcommittee Chair	Yes
Som Shrestha	Research Subcommittee Chair	Yes
Steven Bruning,		Yes
Larry Sun		Yes
Robert Doeffinger		Yes
Christopher Wilkins		Yes
Brian Rock		Yes