



AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR-CONDITIONING ENGINEERS, INC.

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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 6.9

DATE: Thursday, February 06, 2014

TC/TG/MTG/TRG TITLE: Thermal Energy Storage

DATE & LOCATION OF MEETING: Monday, January 20, 2014

New York, NY

Table with 5 columns: VOTING MEMBERS PRESENT, YEAR APPTD, VOTING MEMBERS ABSENT, YEAR APPTD, EX-OFFICIO MEMBERS AND ADDITIONAL ATTENDANCE. Includes names like Geoffrey Bares, Guy Frankenfield, Henry A. Becker, etc.

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DISTRIBUTION

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

Table listing distribution roles: TAC Section Head, TAC Chair, ALL COMMITTEE LIAISONS AS SHOWN ON TC/TG/MTG/TRG ROSTERS, Manager Of Standards, Manager Of Research.

# ASHRAE Technical Subcommittee 6.9 – Thermal Storage

## Meeting Minutes – New York City, NY

January 20, 2014

### 1. Preliminaries

- a. The meeting was called to order at 4:36 PM by Guy Frankenfield, Chair.
- b. Agendas, sign-in sheets and Denver, CO meeting minutes were distributed to all members.
- c. The Purpose Statement was read by Chairman Frankenfield.
- d. Members introduced themselves and quorum was determined; 11 of the 12 members were present.
- e. There were no changes to the agenda as proposed.

### 2. Approval of Minutes

- a. On Page 4 (ii) (motion on reaffirmation of ASHRAE Standard 94.2) – the vote should be amended to 11-0-0 instead of 10-0-0. John Andrepont made a motion to approve the minutes after correction. John Dunlap seconded the motion. Approved unanimously by the voting members (11-0-0).

### 3. Announcements by Chair – Guy Frankenfield

- a. Recognized the Hightower award recipient, a member representative of TC 5.7 Committee.
- b. A new award category has been announced – “Outstanding TC”.
- c. ASHRAE recommends all members to update their Bio, specifically referring to populating the “Employee Discipline” field online.
- d. Although ASHRAE is considering teleconference options for TC/SPC meetings, a formal decision has not yet place within the organization.

### 4. Liaison Reports

- a. Professional Development Committee (John Nix)
  - There is a training course for TC 6.9 and is currently out for review.
  - John Nix proposed a “Thermal Storage” course presentation during future ASHRAE summer/winter meeting. Information on this course presentation is currently being put together for Professional Development Committee’s consideration. This will be a half-day course.

### 5. Handbook – John Lau

- a. ASHRAE Chapter 51 is currently in second year of the 4 year cycle.
- b. The following additions/revisions are being worked upon:
  - Addition of Sustainability, grid reliability, TES and renewable power
  - Addition of Emergency cooling (incorporate research results RP-1387)
  - TES system commissioning (already received by Lucas Hyman)

- Hot water TES
  - Underground TES
  - Phase change materials
  - Delete obsolete info, update the references and bibliography, as necessary
- c. The reviewers for this revision have been selected as follows:
- John Andrepont (Voting Member)
  - Keith Ponitz
  - Charles Upshaw, Dennis Alejandro - Sustainability, grid reliability, TES and renewable power section.
  - Jeff Kane (will be a Voting Member)
  - Jeff Bares (Voting Member)
  - Umbreto Berardi
- d. Chairman appreciated John's and other author's efforts on Handbook sections and upcoming future revisions

## 6. Programs – Chris Mincey

- a. Review of Past Programs (Denver, CO)
- Two technical papers were released along with a conference paper:
    - TES emergency cooling Part 1
    - TES emergency cooling Part 2
- b. Review Current Program (NYC, NY)
- Conducted a panel discussion: “Dispelling the Myths about TES – Why aren't you using TES?”
  - Had a three part series on TES District Energy, Combined Heat and Power, and Thermal Energy Storage. The seminar was well attended, with approximately 250 attendees.
  - Chairman Frankenfield mentioned that there were 141 seminars submitted for NYC session. Only a third of them (62) were approved. Out of these 62, TC 6.9 had three seminars. This was well appreciated by all TC 6.9 members.
- c. Discuss Future Programs
- The next ASHRAE conference will be held in Seattle, WA. Program abstracts for Seattle conference are due on February 14, 2014.
    - Proposed conference will be based on “Green” and “Sustainability”
      - Motion: To approve the seminar on “SPC 150” to be presented by John Nix
        - Motion: Chris Mincey; Second: Geoff Bares
        - Motion unanimously approved (11-0-0).
      - Motion: To approve the seminar on “TES and Renewable Energy” to be chaired by Lucas Hyman
        - Motion: Chris Mincey; Second: John Dunlap
        - Motion unanimously approved (11-0-0).

- The ASHRAE conference after Seattle will be held in Chicago.
  - Proposed Topic for ASHRAE Conference is “Conserving Energy and Water With TES Systems”
  - No vote taken at this time on this seminar

**7. Standards – Robert Willis**

- a. Standard 94 series
  - Current through 2015.
  - ASHRAE Standard 94.1 and 94.3 were voted to be withdrawn.
    - Withdrawal public review for Standard 94.3 and 94.1 went out in November 2013.
  - ASHRAE Standard 94.2 to be revised.
- b. SPC 150
  - SPC 150 is currently under revision. Several interim meetings have been held between ASHRAE Denver and ASHRAE New York City.
  - SPC 150 committee looking to have the document ready in June, 2014

**8. Research – Brian Silveti**

- a. Work statement 1607
  - Most revisions already conducted for this work statement.
  - Comments received on this work statement, include:
    - The project should be co-funded by DOE.
    - Shortening of the executive summary.
- b. RTAR on Design Guide
  - Received comments and are currently being addressed.
- c. URP 1708 has been submitted by Purdue University.
- d. New items under research include:
  - Research project on diffuser design
    - An RTAR is yet to be developed
    - No vote yet taken on this research project but members showed support for the development of this RTAR

9. Chairman appreciated all TC subcommittee chairman’s efforts

**10. Long Range Planning/Website – Guy Frankenfield**

- a. Chair Frankenfield mentioned that the meeting date & time for next meeting needs to be updated on the TC 6.9 website. Also, Meeting minutes for this meeting will be posted on TC 6.9 website
- b. Information on SPC 150 will also be posted on TC 6.9 website

**11. Honors and Awards**

- a. Chair Frankenfield mentioned that currently no individual is in charge of handling Honors and Awards from TC 6.9 committee.
- b. Mike Filler has volunteered to take up this position.

- c. Mike mentioned to all members to update their Bio on ASHRAE website in order to be help in consideration for awards.

## 12. Old Business

- a. ASME Meeting on Thermal Storage Equipment
  - Several individuals were invited to the ASME Thermal Energy Storage Open Research Forum in September, 2013. A report on recommendation was released for this topic.
  - The report covers three major areas:
    - Building Applications
    - Transportation Applications
    - Electric Utility Applications
  - Possible partnership with TC 6.9 is in discussion for moving forward with ASME's initiative on Thermal Energy Storage Equipment
  - John Lau to get permission to circulate this report to TC 6.9 members

## 13. New Business

- a. Mandate on Energy Storage (OIR on Thermal Energy Storage) in California
  - Offers permanent load shift incentives
  - CA has allocated \$31 million for these incentives

## 14. Adjournment

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