

# Meeting Minutes

## TC 9.9 Building Commissioning

San Francisco Marriott  
18 January, 1998

The meeting was called to order at 3 P.M.

### Review of Action Items (AI) Status:

Action Item	Status and Action
<b>AI #3</b> - Closed <b>1/97</b>	David Shipley talked with Mike Brandemuehl (TC 4.6 Chair) about co-sponsoring Research Projects. They have agreed to co-sponsor Research Items 3 and 7, but they are currently low on the priority list for TC 9.9.
<b>AI #9</b> - Canceled, and modified to AI#4 - 1/98 <b>1/97</b>	David Bevirt will assign a Journal Liaison from this committee.
<b>AI #1</b> - Closed <b>6/97</b>	An updated draft was sent to each subcommittee member by David Bevirt (second draft).
<b>AI#2</b> - Canceled, and modified to AI#1 - 1/98 <b>6/97</b>	David Bevirt will provide a third revision draft at the San Francisco meeting for full committee review.
<b>AI #3</b> - Complete <b>6/97</b>	Kathie Radke submitted the one page cover sheet for Research projects to Society.
<b>AI #4</b> - Complete <b>6/97</b>	Carl Lawson contacted Richard Tyler to be a speaker at the forum and he is will to participate in Chicago.
<b>AI #5</b> - Complete <b>6/97</b>	Carl Lawson indicated the Journal and Insights Committee didn't receive the article.
<b>AI #6</b> - Pending <b>6/97</b>	David Bevirt will contact Jack Twa, Janice Peterson, Gerry Kettler, Elia Sterling, and Eli Howard for their confirmation as Standards Sub-committee members.

### MOTION NO. 1

The June 29, 1997 Meeting Minutes distributed by Christie Kjellman were unanimously approved by the committee.

**HANDBOOK CHAPTER** - Dave Bevirt

David Bevirt apologized for the delay in issuing the revised Handbook Chapter. The full committee needs to vote on the Handbook Chapter at the Toronto meeting. He would like subcommittee comments within the next 45 days. The full committee will get the next revision prior to the Toronto meeting. Please contact Kathie Radke if you would like to obtain a copy of the latest version of the Handbook Chapter.

- AI#1 - 1/98** David Bevirt will provide the full committee a copy of the Handbook Chapter prior to the Toronto meeting so they can vote on the version that will be published.

**MOTION NO. 2**

The committee voted unanimously to accept the Handbook Committee Report (Lawson/ Kettler).

**PROGRAMS - Wayne Dunn**

See Attachment A for the Program Plan.

Also see Attachment F for the Summary Reports of Seminars 26 and 40.

**MOTION NO. 3**

The committee voted to co-sponsor a Symposium titled "Effects of Commissioning on Operation and Maintenance as it relates to Indoor Air Quality" with TC 1.7, (Dunn/Kjellman) (10/0/0) . The Symposium will be chaired by Frank Gallo.

**MOTION NO. 4**

The committee voted unanimously to accept the Program Committee Report (Radke/Gaziano).

**RESEARCH - Kathie Radke**

Kathie Radke distributed the Research Committee report to all in attendance. Please see Attachment B. She indicated the subcommittee had a very productive meeting. They focused on the first three priority projects. Project #1 is the top priority which has the final version Work Statement attached for TC 1.5 lead. Project #2 will be lead by Kristin Heinemeier. Project #3 lead is David Shipley. If anyone is working on Project #4, please contact a subcommittee member. Project #5 will be co-sponsored by TC 1.7.

Larry Fisher asked if TC 9.9 would be interested in co-sponsoring a Research Project titled, "Project Performance Assessment of VAV Control Systems Before and After Commissioning." Please see Attachment C for the Research Plan developed by TC 1.4.

**MOTION NO. 5**

The full committee voted unanimously to approve the prioritized list of Research Project Work Statements and plans as recommended by the Research

subcommittee (Radke/Lawson).

**MOTION NO. 6**

The committee voted unanimously to accept the Research committee report.

**LONG RANGE PLANNING and Proposed GUIDELINE ON TOTAL BUILDING COMMISSIONING - Carl Lawson**

Carl Lawson sat down with a Standards Committee Representative in Boston and they indicated the PPIS Committee approved the Proposed Guideline on Total Building Commissioning to move forward but the Standards Committee turned it down.

The National Institute of Building Sciences indicated they would go through with the development of this Guideline if ASHRAE doesn't. However, ASHRAE should be the driver. GSA and FEMP have expressed an interest in the Guideline.

Claire Ramspeck is becoming the new Manager of Standards. Carl Lawson will postpone the Guideline discussion until Claire fills the new position.

Please see the full report in Attachment D.

**MOTION NO. 7**

The committee voted unanimously to accept the Long Range Planning and Proposed Total Building Commissioning Guideline subcommittee report.

**MEMBERSHIP - Elia Sterling**

Elia Sterling asked if you are interested in being involved in the TC to please see him. If any of your data has changed, please fill out the yellow cards and give them to Elia. Elia indicated that David Butler asked that only committed members be allowed to be voting members and that they must attend meetings so that work can move forward.

Elia asked that biographical forms be updated if any changes are in order. He has extra forms available.

Eli Howard is the Vice Chair for membership.

**MOTION NO. 8**

The committee unanimously approved the Membership report.

**STANDARDS - David Bevirt**

David Bevirt has resigned from his Standards commitments due to his serious health condition last summer. He is looking for a replacement from this committee as a Standards Liaison.

Jim Heldenbrand is retiring.

Standard 62 is now being put on a continuous maintenance status.

## **LIAISON REPORTS**

*SSPC 62R (Ventilation for Acceptable IAQ) - Elia Sterling*

At the June ASHRAE meeting in Boston Standard 62-1989 was placed on a "Continuous Maintenance Procedure" by recommendation of the Presidential Ad Hoc Committee on Multi Disciplinary Standards. This change from "Periodic Maintenance" to "Continuous Maintenance" allows the Standard to be modified by Addenda on a continuing basis. Following the decision a Multi Disciplinary Standards Implementation Committee (MDSI) was appointed to recommend procedures to be followed for the Continuous Maintenance process. The report of the MDSI Committee was received by the ASHRAE Board of Directors at the January meeting in San Francisco and directed to the Standards Committee for further study and action.

However a complication occurred to the process at the Boston meeting. Prior to placing 62-1989 on "Continuous Maintenance" a recommendation was approved to divide the Standard as following:

- 62.1 Ventilation for Acceptable IAQ in Commercial and High Rise Residential Buildings.
- 62.2 Ventilation for Acceptable IAQ in Low Rise Residential Buildings.

The Board is currently considering procedural and practical methods of overcoming this complication. One possibility under consideration is to maintain the existing SSPC 62 limiting the scope to "Continuous Maintenance" of 62-1989 and forming two new Standards Project Committees 62.1 and 62.2 to develop new Standards through consensus review using the "Periodic Maintenance" process.

In the meantime SSPC 62 continues to push ahead while at time neglecting procedural requirements. At the San Francisco meeting of the committee, the Chair, Steven Taylor tabled a draft "Plan of Work" for discussion. The committee also considered 26 Addenda that had been submitted by the September deadline and a number of new addenda proposed by committee members. Five addenda were recommended for Public Review and subsequently approved by SPLS. The 60 day comment period will start after publication of the March ASHRAE Journal and end May 15th. Between the Boston and San Francisco meetings an Emergency Action was proposed that would have removed the consideration of design ventilation rates for occupancies where smoking occurs from the Table 2 requirements. The committee vote on this action was split. An Emergency Action requires

presidential action for implementation, none has yet been taken.

SSPC 62 has established a process for feedback from Liaison Committees, to facilitate the process. Elia Sterling established a subcommittee to provide SSPC 62 with timely feedback. Looking at the full committee response is not likely to be quick enough. Subcommittee members are Elia Sterling (Liaison to SSPC 62), Walter Grondik, Wayne Dunn, Gerry Kettler, Joe Scolaro, Eli Howard, and Carl Lawson. The subcommittee will consider issues and provide feedback to SSPC 62 on an ongoing basis and report back to TC9.9 at regularly scheduled committee meetings.

*SSPC 90.1 (Energy Efficient Design of New Buildings)* - Cedric Trueman

The three question and answer/comment sessions scheduled are designed for input rather than to suppress discussion. Everyone that is interested, please attend. They are scheduled for January 18 and 19, 1998.

This Standard is not going into the continuous maintenance status. The current chair has recommended this Standard not go into continuous maintenance status until this Standard is issued.

Please see Attachment E for a full report.

*SSPC 90.2 (Energy Efficient Design of New Low Rise Residential)* - Walter Grondzik

This Standard voluntarily went into continuous maintenance status one year ago. They have not received any comments for the first six months. About one dozen comments have been received within the last six months. Some items may be able to be addressed in regard to commissioning.

*SPC 111 (Test and Balance for HVAC & R Systems)* - Gerry Kettler

The SPC 111 committee did not meet at the San Francisco meeting.

The draft Standard revision has been completed and approved for public review in January of 1997.

The review is being delayed at ASHRAE headquarters. The expected date for public review is unknown at this time.

*G10P (Criteria For Achieving Acceptable Indoor Environment)* - Gerry Kettler

The committee met on Sunday, January 18, 1998 for four hours.

Draft number ten of the Guideline was discussed. The recent changes to the ASHRAE 62 process was discussed and the committee recommended that Guideline 10 continue to stand on its own and not become the proposed Standard 62 Users Manual or Guideline.

Suggestions were made to rearrange the Guideline's index and sequence of information. The proposal was to provide a page or section for each of the common IAQ constituents, such as temperature, humidity, air motion, VOCs, particulates, etc., that listed the known standards, known interactions, a design guide, and unknown factors. This would provide a summary document for use by the industry.

No schedule for public review was set.

*GPC 11P (MOT for Building HVAC Control Systems)* - Gerry Kettler

The committee met on Friday evening, January 16, 1998.

The overall organization of the Guideline has been completed and the completed sections arranged in one document. The major sections include: general format, device testing - water and air, system testing, sequence of operation, problem solving, and documentation. A format for the section input has been developed and reviewed for device and system testing. The intent is to provide a guideline that is usable by field GPC 11P level technicians, and provides requirements for design of testable device and system installations.

The committee will exchange information and additions made to the document including instrumentation requirements during the next few months. Hopefully the Guideline can be ready for public review by 1999. Additional members still are welcome.

*GPC 13P (Specifying Direct Digital Control Systems)* - Gerry Kettler

The committee met briefly on Saturday, January 17, 1998.

The committee voted to put the draft out for public review at the Boston meeting. The review is being held up at ASHRAE headquarters. No date has been set for this review.

Anyone connected with field testing, or commissioning, of DDC control systems is encouraged to review the Guideline to assure that provisions are made at the design stage for testing and verification.

*TC 1.7 (Operations & Maintenance Management)* - Kathie Radke

At the June 1997 Boston meeting, this TC asked TC 1.7 to provide specific requirements with regard to the documentation at the conclusion of commissioning. TC 1.7 responded that their activities with Guideline 4 address that need directly.

TC 1.7 is interested in the work that TC 9.9 is doing with "Total Building Commissioning" and would like to investigate what impact it could have on "Total Building Operations and Maintenance."

TC 9.9 voted to co-sponsor the symposium planned by TC 1.7 for Chicago titled "The Effects of Commissioning and O&M on IAQ" to be chaired by Frank Gallo.

As noted in the Research subcommittee report, TC 1.7 voted in June of 1997 to co-sponsor the Research Plan titled "Diagnostic Tools for Maintenance and Operating Cost Optimization."

*TC 9.1 (Large Building Air Conditioning Systems) and TC 9.8 (Large Building Air Conditioning Applications) - Joe Scolaro*

Harvey Brickman is the new TC 9.1 Research head.

Standard 62 will have a mid-August 1997 public review by the TC of the revised previous standard. This Standard received 8,700 comments.

Joe Scolaro will tentatively chair a Chicago Seminar on "Demand Based Ventilation for V.O.C.'s or CO<sub>2</sub>" with TC 9.8.

TC 9.1 will sponsor URP-994 Research Project titled, "Development of a Design Guide for Humidity Control."

TC 9.1 and 9.8 will co-sponsor a Toronto symposium titled "Systems for Humidity Control in Museums." This symposium will be chaired Charlie Hauck.

Co-sponsoring programs with TC 9.1 and 9.8 continues to be a top priority and focus. Most of the work for these TC's is focused on central plants.

## **SOCIETY REPORTS**

*Journal - Carl Lawson*

More articles are needed from the TC's. If they obtain more articles on commissioning, it will give the subject good exposure.

Carl Lawson asked for two volunteers to go on the Editorial Board to review articles prior to publishing. Ken Peet and Joe Scolaro volunteered.

They are looking for the best quality articles for the Journal. Currently only 40 percent of the submitted articles get published. Authors receive a \$100 certificate to the ASHRAE bookstore.

**AI #2 -** David Bevirt will assign a Journal Liaison from this committee.  
**1/98**

## **NEW BUSINESS**

### **MOTION NO. 9**

The committee voted unanimously to appoint Cedric Trueman as the SSPC 90.1

Liaison (Dunn/Lewis).

**MOTION NO. 10**

The committee voted unanimously to appoint Walter Grondzik as the SSPC 90.2 Liaison (Lawson/Lewis).

**AI #3 -** Cedric Trueman and Walter Grondzik need to submit a Bias Form to Janice  
**1/98** Peterson.

**AI #4 -** Janice Peterson will submit the Biased Forms to David Bevirt.  
**1/98**

**MOTION NO. 11**

The committee voted unanimously to appoint Rodney Lewis as the TC 9.7 Liaison (Kettler/Radke).

**MOTION NO. 12**

The committee voted unanimously to appoint Gerry Kettler as the U. S. Green Buildings Council Liaison (Lawson/Gaziano).

Carl Lawson indicated the ASHRAE Hospital Design Manual will include commissioning. These meetings will be scheduled for Sunday mornings.

David Shipley has volunteered to set-up a website for TC 9.9, as he has already done so for another TC.

Tia Heneghan shared with the group that the State of Texas has recently built jails without commissioning which had 1200 RFI's. They will be building the new jails with commissioning and two commissioning authorities are now working on the project. They are now going out to bid for the new sites. Tia would like to share the information gleaned from the projects without commissioning and commissioned projects in a year or two. Tia wants to make sure she captures all of the necessary information now. If you have any input, please contact Tia Heneghan.

Karl Stum updated the committee on the Northwest's (NW) commissioning activities. The Northwest Energy Efficiency Alliance (NEEA) has proposed to promote commissioning activities in the NW. One is a creation of a commissioning providers association, not by utilities but by the NEEA which will fund the project for two years. It is hopeful it will be self-sustaining after that. The states which are currently participating are: Montana, Idaho, Washington, and Oregon. The NEEA is going to hold a commissioning survey to find out what is being done in the area of commissioning and what needs to be done.

Karl Stum also announced the Sixth National Conference on Building Commissioning. The conference will be held May 17 - 20, 1998 in Lake Buena



Vista, Florida. The tentative list of topics include: Commissioning from the Owner's Perspective, Commissioning from the Professional's Perspective, and Roles in the Commissioning Process.

Gerry Kettler noted that Engineering Systems magazine will include a series of articles on commissioning.

Gerry Kettler also announced the State of Texas, State Department of Health, has implemented Guidelines relative to IAQ in public schools. A portion of this Guideline includes commissioning.

**AI Status for open projects:**

<b>Action Item</b>	<b>Responsible Party</b>	<b>Status</b>
<b>AI #6 - 6/97</b>	David Bevirt	Open
<b>AI #1 - 1/98</b>	David Bevirt	Open
<b>AI #2 - 1/98</b>	David Bevirt	Open
<b>AI #3 - 1/98</b>	Cedric Trueman/Walter Grondzik	Open
<b>AI #4 - 1/98</b>	Janice Peterson	Open

**MOTION NO. 13**

The committee unanimously voted to adjourn the meeting at 5:00 p.m. The committee unanimously voted to adjourn the meeting at 5:00 p.m.

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By: Christie R. Kjellman, CEM, CDSM  
Secretary to TC 9.9

Attachments not provided as links were distributed to committee members in hard copy form by ASHRAE.