



**Goal 2: Commercial Quality Installation Committee
Friday December 18, 2015 Meeting Notes**

Call to Order

The meeting was called to order at 1:05 pm PST by Rob Falke, Chair and President of National Comfort Institute (NCI). Meetings are normally scheduled for 60 minutes.

Roll Call

Quorum for voting organizations = 4 of 7. 3 of 7 voting members, 2 non-voting members and 1 guest/staff attended this meeting. A total of 6 members and guests were in attendance.

P = present at meeting

A = absent voting member; if proxy has been assigned it will be noted below.

WHPA Goal 2: CQI Committee VOTING Members				Roll Call
Air-Tro	Bob	Helbing	Contractor (Nonresidential)	
BuildingMetrics	Pete	Jacobs	Energy Efficiency Program Consultant	P
National Comfort Institute (NCI)	Rob	Falke	Educator, Trainer	P
Southern California Edison (SCE)	Sean	Gouw	California IOU	
San Diego Gas & Electric (SDG&E)	Jeremy	Reefe	California IOU	
Tre' Laine Associates	Pepper	Hunziker	Other Stakeholder	P
WHPA Goal 2: CQM Committee NON-VOTING Members				Roll Call
Aire Rite AC & Refrigeration	Larry	Smith+	Contractor (Nonresidential)	P
American, Inc. **	Darwin	Ward+		
Lee's AC, Htg. and Bldg. Performance**	Bryan	Lee+	Third Party Quality Assurance Providers	
JP Gorman, Inc **	Joe	Gorman Jr.+	Controls (Manufacturer or Distributor)	
Southern California Edison (SCE)	Tara	Becnel	California IOU	
Southern California Edison (SCE)	Scott	Higa	California IOU	P
Southern California Gas Company (SoCalGas)	Pete	Tanios +	California IOU	
WHPA Goal 2: CQI Committee Invited Guests and Staff				Roll Call
Aire Rite AC & Refrigeration	Don	Langston	Contractor (Nonresidential)	
California Public Utilities Commission (CPUC) - Energy Division	Lola	Odunlami	California PUC	
IC Refrigeration **	Rich	Imfeld +		
STAFF				
BBI (Better Buildings Inc.)	Dale	Gustavson	WHPA Executive Advisor	
BNB Consulting/WHPA Staff, host, admin. support & scribe	Bob	Sundberg	WHPA Staff	P
Empowered LLC	Shea	Dibble	WHPA Co-Director	

** Organization is Not a Member of the WHPA; + Individual is NOT Registered with the WHPA;
(P) after last name = Member/Registrant is Pending Approval from the WHPA Executive Committee

AGENDA



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Topic	Discussion Leader	Desired Outcome
Welcome, roll call, approve past meeting minutes, review ACTION items and agenda	Rob Falke and Bob Sundberg	Record meeting attendees, finalize past meeting minutes, review status of meeting action items.
Welcome members & guests	Rob Falke	New members and invited guests welcomed.
New Business	Rob Falke	Address any new or critical issues.
Report on previous assignments	Rob Falke, Pepper Hunziker & Sean Gouw	Standards and training organizations research related to HVAC performance evaluation.
CQI Field Measurement Data Spec. Work Group	Pete Jacobs	Update committee on WG status.
SCE sponsored Commercial Quality renovation Contractor Forum	Rob Falke and Tara Becnel	Understanding what was addressed and shared at this forum.
2015 goal assessment and 2016 goal pre-planning	Rob Falke	Assess 2015 goal progress, carryover into 2016 and preliminary goals for 2016.
Summarize meeting, assignments/ACTION items, set next meeting date/time, adjourn	Rob Falke and Bob Sundberg	Set next meeting date, confirm time, review any new ACTION items and next meeting agenda items.

Approve Minutes of Previous Meeting

The November 20 meeting notes were distributed December 8 and approved at the December 18 meeting. Bob Sundberg would have finalized meeting notes and have them posted to the committee's website location.

Review Status of Action Items from Previous Meeting

April ACTION: Sean Gouw would speak with Andres Fergadiotti about attending the next CQI Committee meeting to help the team better understand current SCE claimed savings efforts and approaches which might be considered for a CQI program, including the hybrid one discussed at the April 17 meeting. Addressed by Tara Becnel at August meeting. Pending IOU program development. Pending.

July ACTION: Pepper Hunziker and Sean Gouw would investigate and provide a summary of all known standards which effected HVAC installation and performance as well as all known organizations which provided HVAC training and included training on those standards. Pending.

September ACTION: Rob Falke would provide Pepper Hunziker with a list of standards related to commercial quality installation which his firm had compiled. Pepper and Sean Gouw would use the list for further investigation into standards related to commercial HVAC installation and organizations which provided training on those standards. Pending.



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November Update: Rob Falke's firm was still pulling together HVAC standards related to commercial installation for Pepper and Sean. Rob expected they would be delivered to them prior to the next monthly meeting. Pending.

December Update: Rob Falke still owed the NCI standards summary document to Pepper and Sean that would be prepared in a format which could be reviewed by California utilities as well as the CPUC. The document includes direct references from six or seven industry standards which have direct bearing on commercial installation.

Welcome New Members and Guests

None.

New Business - Rob Falke

None.

Standards & Training Organizations Related to CQI - Sean Gouw and Pepper Hunziker

No report. See ACTION item updates.

CQI Standardized Field Measurement Data Specification WG (CQM SFMDS WG) - Pete Jacobs

Pete Jacobs, BuildingMetrics Inc. and chair, reported that his working group had been meeting about ever two weeks. He estimated that they were about 80% complete regarding a specification for commercial installation. He expected that work would continue in 2016 on a specification focused on residential installation and commercial maintenance.

Rob Falke commented that they had invited representatives from the RQI and CQM committees to participate on this initial working group. He'd received some comments that this CQI working group was writing a specification for those other two areas of focus. They realized the need to reach out directly to the chairs and other committee members to inform them of what this working group was doing and invite greater participation or that this effort might be carried forward by working groups formed by those other two respective committees. Rob and Pete intended to reach out and have direct conversations with chairs of the other two committees. Pete and Rob also discussed an option for having a co-chair from the RQI or CQM committee when the WG would focus on that specific area.

Bob Sundberg, WHPA staff, commented that the RQI Committee had been tackling barriers to CPUC acknowledgement for greater IOU program claimed savings such as marketplace rather than Title 24 compliance baseline comparison. The CQM Committee had provided considerable support for commercial maintenance program improvements and challenges to current positions that standards based savings did not contribute to energy savings and energy efficiency measures such as condenser coil cleaning was not a cost-effective measure based on the CPUC position on acceptable cleaning methods. This committee and working group had focused on required data and methods for actually measuring unit and system performance in the field, a goal beyond current code and existing standards.

The committee title - Commercial Quality Installation

Rob Falke commented that Bob had made an important point. The work of this committee was intended to go beyond existing standards to establish methods for verification of performance in the field which could be compared to field measured performance of the previous installation to establish an improvement in energy usage and savings. There were concerns expressed when this committee was re-activated that it was named for, referred to in the CA Strategic Plan and formed around a single industry standard, ACCA Standard 5. While itself a great standard, especially for residential installation, it was not considered to fully address some aspects of commercial installation which other industry standards addressed and some that weren't yet addressed by any existing national standard. And, it did not go beyond installation to address performance verification compared to factory rated maximum performance.



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Rob Falke wanted this committee to consider whether having this committee named for a single industry standard a limiting factor? Should this committee go to the executive committee and suggest that it should be renamed in such a way that it didn't give the impression of only addressing that single standard? Request that the word "quality" be dropped from the committee name because he thought it hindered progress. By removing the term "quality" from the committee name, it would allow the group to address all aspects of commercial installation, not just those addressed in a single standard.

Scott Higa, SCE, responded that he thought that this committee could address opportunities to address updating and revising ACCA Standard 5. He'd heard from the folks at ACCA that there were opportunities for input to revisions of the standard on a periodic basis. He'd heard comments in RQI Committee meetings about helping change or revise an existing standard rather than re-inventing the wheel and starting all over. He understood Rob's point about the committee working beyond that one existing standard. There should be committee discussions about that issue. He didn't have any answer or formed opinion yet.

Pete Jacobs commented that the whole notion of a committee named with the same term as the branded term "quality installation" was problematic. He noted that SCE had moved away from calling their maintenance program "quality maintenance" and termed it HVAC Optimization. He didn't think the committee was formed to improve or develop a standard. He thought it was formed to promote activities which supported energy savings, programs which supported various standards. The branded term "quality" certainly contributed to confusion in the marketplace. Maybe the name of the committee should follow its intended activity. Commercial Installation Energy Efficiency.

Rob Falke agreed. The term "quality" had no delta or measurement for change in energy efficiency or defined what that would be or scoring method within that standard, an ability to produce the data needed to score a change. Rob's concern was that the CPUC had hired a consultant to revise the strategic plan which might retain the same terminology that might end up binding this committee to only one standard. He felt strongly that a proposal to the Executive Committee about a committee name change would send a message to the CPUC and their consultant to revise their wording to look beyond just one or two existing standards. To avoid future confusion.

Rob Falke asked attendees whether there was any opposition to Bob Sundberg looking into whether they could propose a name change to the Executive Committee?

Scott Higa thought that the ACTION item to research the standards and training organizations relevant to commercial installation would inform the committee prior to deciding on what next step to take.

Rob Falke noted that about 1/2 of the proposed measurements in the draft specification were outside of existing standards. Tying those additional measurements to standards other than ACCA 5 would be another task to complete. But, he wondered whether that was necessary before raising the issue to the Executive Committee?

Scott Higa asked Rob, if the research on other standards and training organizations wasn't necessary, what was the purpose for that research activity?

Pepper Hunziker, Tre' Laine Associates, answered that they first wanted to compile a list of relevant standards which could inform work of the committee. Where each played a role. Then, to find out what organizations might be teaching those standards. Whether that training blended the standards together or if only a few had training being offered for individual standards. That would help the committee determine what direction it needed to go. She and Sean had done a bit of research and located some training but they were waiting for the compiled standards list in order to proceed with a more comprehensive effort.

Rob Falke committee to putting more time into making that list of standards available for the next meeting.



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Bob Sundberg, WHPA staff, recalled Pete Jacob's reference earlier to the term energy efficiency. But, could the term "performance" be included in the committee name since the committee operated under the WHPA, the performance alliance? That would include efforts to measure capacity and efficiency, components of performance. It might also imply system/unit reliability.

Rob Falke responded that in a discussion earlier in the week with Don Langston three terms had been raised. Performance, measurement and verification. SCE currently had two programs with a performance foundation. Contractors were more confident they were delivering energy savings when a program based on a standard was coupled with methods for verifying that improvement in performance. He offered to share a few slides which had been shared at the WG meeting a few days before.

Rob Falke, again, raised the question of whether the committee should raise its concerns about using a branded term in its name to the Executive Committee. Did that action really need to wait until Pepper and Sean could research standards and their training organizations?

Scott Higa, SCE, wanted to provide some background context for that decision. He believed the WHPA committees were basically set up to support IOU state-wide utility programs as well as compliance to address state codes. He didn't know if there were any restrictions to change committee names.

Bob Sundberg, WHPA staff, responded that the committee names were originally nicknames intended to reference a known standard. CQM was referencing the ANSI/ASHRAE/ACCA Standard 180, the first and only known national standard to address commercial maintenance. He also noted that Standard 180 did not include the term "quality" in its title. The RQI Committee was based on ACCA Standard 5 which also referred to a large number of other national standards in its appendices. He also noted the earlier comment made that the IOUs had chosen to brand their own commercial maintenance programs and purposely not use the term "quality." He didn't think the committee names were cast in cement but had been chosen as a matter of convenience to get programs moving in a general, positive direction.

CQI Committee Goals - Rob Falke

Rob Falke proposed they use the remainder of the meeting to review committee goals.

Goal #3 involved the formation of a cross-cutting working group to identify the field measured data necessary to assess a performance evaluation.

Goal #4 involved developing a repeatable method for determining unit and system performance from field taken measurements. This involved determining what calculations were needed to establish a level of performance from which before/after savings could be determined. That seemed to be consistent with several IOU programs which intended to go beyond a standard and establish field measured performance in order to support a new approach toward utility program claimed savings.

Goal #5 was intended to publish a performance verification process.

Rob Falke asked if members thought the goals were still on track? No members commented.

Bob Sundberg, WHPA staff, thought that the decision by Pete to have the WG focus on just commercial installation at its last meeting was very productive. They would need to determine later how to address commercial maintenance and residential installation through the calls to other committee chairs. But, the focused effort would definitely help them complete a phase 1 effort as a foundation for the other areas of focus during 2016.



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Rob Falke thought that they should also have a direct call with ACCA representatives to share their ideas and gather ACCA input, see where they were at and what plans they had for their standard. Pete Jacobs agreed.

ACTION: Pete Jacobs and Rob Falke would talk with each of the other relevant committee chairs about how best to proceed with future phases of the data specification working group which would focus on residential installation and commercial maintenance. They would also contact ACCA representatives to discuss future committee goals, the committee name issue and learn about ACCA plans for revision of their Standard 5.

Closing Comments/Adjournment

Bob Sundberg, WHPA staff, suggested that if there were any decisions which Rob and Pete came to about 2016 goals and the need for continued working group effort, he suggested they provide him with an email summary of their proposal. He would forward that to staff which supported the Executive Committee and it would be considered for being an item at the January EC meeting. If they also had consensus about raising the issues around the current name of the committee, Rob could send him an email to that effect and he could also recommend to EC support staff that be a topic for a future EC meeting. He thought that the primary topic at the EC January meeting would be addressing 2016 overall smart goals from which individual committees would propose their individual goals to align their efforts. The EC would also wrestle with WHPA structure which was raised at the November 4/5 In-Person Leadership meetings.

Rob Falke thought they could hold the next meeting on the next month third Friday, January 15. The 3rd full week Friday January 22, would conflict with ASHRAE meetings. Pete Jacobs indicated that the Standard 180 Committee was scheduled to meet Friday January 22 in the afternoon.

The next meeting was planned for Friday January 15 at 1:00 pm PT.

The meeting was adjourned at 2:07 pm PST.

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Summary of Pending and New Action Items and Key Decisions

December **ACTION:** Pete Jacobs and Rob Falke would talk with each of the other relevant committee chairs about how best to proceed with future phases of the data specification working group which would focus on residential installation and commercial maintenance. They would also contact ACCA representatives to discuss future committee goals, the committee name issue and learn about ACCA plans for revision of their Standard 5.

Past ACTION Items:

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