



## WHPA Goal 2: CQM Standard 180 User Guide Working Group Thursday August 25, 2016 Meeting Notes

### Call to Order

The meeting was called to order at 10:03 am PDT by Dale Rossi, Chair of this working group and a representative of Field Diagnostic Services Inc. (FDSI).

### Roll Call

The Chair considered one member of each organization to be a voting member for this working group. 11 of 20 voting members in attendance would constitute a quorum. 6 voting members, 1 non-voting members, 0 guests and 1 staff were present for a total of 8 attendees.

P = Present at meeting				
A = Absent from meeting; if proxy has been assigned it will be noted below.				
Although Voting Members have been designated by Staff, this group acts primarily by consensus.				
<b>CQM User Guide Working Group Voting Members</b>				
ACCA (Air Conditioning Contractors of America)	Donald	Prather	Contractor Association	P
Air Management Industries	April	Yungen	Contractor (Nonresidential)	P
Aire Rite AC & Refrigeration	Don	Langston	Contractor (Nonresidential)	
AMS (American Mechanical Services)	Marc	Pickett	Contractor (Nonresidential)	P
BELIMO	Darryl	DeAngelis	Controls (Manufacturer or Distributor)	
BMI (BuildingMetrics, Inc.)	Pete	Jacobs	Energy Efficiency Program Consultant	P
Charles Segerstrom, Energy Efficiency Consulting	Charles	Segerstrom	Energy Efficiency Program Consultant	P
CLEARresult (formerly PECl)	Michael	Blazey	Energy Efficiency Program Consultant	
FDSI (Field Diagnostic Services Inc.)	Dale	Rossi	Third Party Quality Assurance Providers	P
GWP (Goodheart-Willcox Publisher)	Sandy	Clark	Educator, Trainer	
Honeywell ECC, Commercial Buildings, Trade	Michael	Lawing	Controls (Manufacturer or Distributor)	
HSGS (Honeywell Smart Grid Solutions)	Shayne	Holderby	Energy Efficiency Program Consultant	
Marina Mechanical	Denny	Mann	Contractor (Nonresidential)	
National Comfort Institute	Jeff	Sturgeon	Educator, Trainer	
Richard Danks Consulting - FacilityPro	Richard	Danks	Other Stakeholder	
SCE (Southern California Edison)	Steve	Clinton	California IOU	
Tre' Laine Associates	Pepper	Hunziker	Energy Efficiency Program Consultant	
UC Davis EEC (Energy Efficiency Center)	Kristin	Heinemeier	Research Organization	
Western Allied Corporation	Mike	Gallagher	Contractor (Nonresidential)	
Warren Lupson and Associates	Warren	Lupson	Other Stakeholder	
<b>CQM User Guide Working Group Non-Voting Members</b>				
CLEARresult	Mike	Withers	Energy Efficiency Program Consultant	
HSGS (Honeywell Smart Grid Solutions)	Steve	Varnum	Energy Efficiency Program Consultant	
SCE (Southern California Edison)	Todd	Van Osdol	California IOU	P
SCE (Southern California Edison)	Scott	Higa	California IOU	
<b>CQM User Guide Working Group Guests</b>				
Adrienne Thomle, Consulting**	Adrienne	Thomle+		
Fresno Unified School District	Frank	DiLiddo		
Little Caesar's **	Wendy	Gallo+		
<b>WHPA Staff (Non-Voting)</b>				
BBI (Better Buildings Inc.)	Mark	Lowry	WHPA Executive Advisor/BBI COO	
BNB Consulting/WHPA Staff	Bob	Sundberg	Energy Efficiency Program Consultant	P (scribe)
Empowered Solutions/WHPA Staff (WHPA Co-Director)	Shea	Dibble	Energy Efficiency Organization	

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

To avoid repetition, the name of the member organization will not be repeated in the body of the minutes past the first identification with the name of the representative participant.



## WHPA Goal 2: CQM Standard 180 User Guide Working Group Thursday August 25, 2016 Meeting Notes

### Welcoming and Member Introductions

Attendees were welcomed. There were no new guests or members.

### Approve Previous Meeting Draft Notes

The August 18 meeting draft notes were distributed August 22. Finalized meeting notes would be posted to the WHPA website by Bob Sundberg.

### ACTION Items

June 30 Key Decision: should the WG develop a second, parallel table of benefits for contracting firms that would result from their proposing maintenance based on Standard 180. Dale Rossi suggested they see if time permitted their addressing this additional market segment player.

STATUS: The WG agreed that they needed to focus their limited time on the key market segments already selected. Completed.

August 11 ACTION: remaining meeting attendees concluded that schools and each of the MUSH market segments should probably be grouped but given their own rows as the group collected more detailed information on each. The VP Matrix should be revised to reflect these sub-segments. Ongoing.

August 18 ACTION: Bob Sundberg would make sure that the customer reports provided by SCE were distributed to members/guests. (sent out with August 18 meeting notes) Completed.

July 18 ACTION: Todd van Osdol would talk with Scott Higa about how they thought the implementation of AB 802 might have an impact on their program and also about how they might consider addressing the energy use reduction sort of performance objective which Dale Rossi described. Ongoing.

### New Business – reference to the Standard 180 term “inventory” and interpretation of Section 4.2.2.d action required

#### 1. Standard 180 term “inventory” – correct interpretation

Richard Danks concern over use of the ASHRAE STD 180 term “inventory.”

” I have noticed in your comprehensive working group notes a tendency for committee members to offer an opinion on what Standard 180 means without properly vetting the opinion to verify it is correct. Case in point: there was a discussion a month or so ago regarding equipment inventory and whether an asset could be left off the inventory. It is unclear whether the conversation was referring to the ASHRAE/ACCA/ANSI standard or the WHPA version of the standard; and this would make a difference

I do not agree with the opinion voiced. I am aware that the ASHRAE Committee leadership is working on a related issue that includes what is to be included in the inventory. Granted, the current 180 text requires "components that impact HVAC system performance shall be inventoried," or words to that effect. The literal interpretation would say this includes every pipe joint, union, damper, sheet metal screw, flexible duct connection, etc. needs to be listed. Clearly this is very impractical and unreasonable. This implies there are assets that should not be listed in the inventory. In fact, some users call this "the inventory of items to be inspected and maintained." Also there are certain devices that cannot be maintained but should be inspected.

If the reference is to the WHPA version, then I withdraw my concern. If the reference is the ASHRAE standard, then please know that there is a process to request an official interpretation through ASHRAE channels.

Not to add to the bureaucracy, but I am concerned with correct information being disseminated, not just opinion.”

## WHPA Goal 2: CQM Standard 180 User Guide Working Group Thursday August 25, 2016 Meeting Notes

This new business topic was not addressed at the August 18 meeting.

Dale Rossi expressed that he didn't personally feel the need to formally request an official ASHRAE interpretation. The term was pretty ambiguous, in his opinion, in the current 2012 standard which was one reason the Standard 180 Committee was in the process of revision. He related that the committee had reached consensus around how the term should be interpreted and used which would become part of a revised standard when published.

2. Correct interpretation of Section 4.2.2.d. What action was required to correct when unacceptable conditions or performance was observed during inspection? Section 5 tables included statements such as repair or replace as necessary to correct deficiency. Does adherence to the standard require responsible parties to authorize all such repairs and replacements? Seemed to WG to be more onerous than taking an equipment inventory.

Dale Rossi shared that this issue had been addressed in revisions of the standard. The only question he knew was not yet resolved was whether the changes in the tables in Section 5 would be called out as informative and not part of the standard requirements or whether it would be moved back into an appendix. For User Guide matters which were unclear in the current standard, Dale recommended the Working Group use the revised and clarified understanding he and other Standard 180 Committee members could provide the group.

<b>AGENDA</b>		
<b>Topic</b>	<b>Discussion Leader</b>	<b>Desired Outcome</b>
Welcome, Roll Call, Member Introduction, Approve Past Meeting Notes, Review Action Items, New Business, Meeting Agenda	Chair, WHPA Staff	Record attendees, welcome any new members, approve previous meeting minutes, review status of any open Action items, planned agenda and bring up any new business items for the WG to consider addressing.
Review 8/11 VP Matrix – characterize school market segment	Dale Rossi	All members would understand what was discussed and/or decided at the previous meeting and provide final revisions or corrections.
VP Matrix – Best Practices column	Dale Rossi	Provide examples of practices, evidence and documentation which would support Standard 180 approach
VP Matrix – organize, revise, refine content		Clear, concise, prioritized content in matrix
Set next meeting date/time, assign actions and proposed agenda and adjourn.	Dale Rossi, WHPA Staff	Clear understanding of member responsibilities for the next meeting. Next meeting date/time established.

### **User Guide Topics – Dale Rossi**

This working group (WG) decided that it would explore the following Standard 180 related topics. The WG intended to select one highest priority topic to focus on for most of 2016. When completed, they would select a next highest priority topic to pursue during the balance of 2016 or into 2017 dependent on WHPA allocated resources.

1. Understanding performance objectives and condition indicators
2. Making a maintenance plan
3. Investigating unacceptable conditions and performance
4. **Communicating the value proposition – selected as primary deep dive topic for 2016**
5. Customer facing reporting

### Working Group meeting resource status – Bob Sundberg

Bob reported that after this meeting there would be three remaining WG meetings. Dale planned to devote one more working session and the final two meetings would be focused on finalizing their work product.

### Review previous WG meeting focused on school market segment & best practices – Dale Rossi/Pepper Hunziker

The VP Matrix had not been updated by Dale Rossi or Pepper Hunziker since the August 11 meeting because of their work demands.

### National Account Characteristics ---

The group discussed some well-known national accounts. Dale Rossi suggested that a McDonalds or similar franchise owner would be classified as an owner occupied segment while the corporate owned locations would be a national account. The franchise owner generally worked at their locations and was resource constrained like other owner occupied members of this group. Whether the franchise was large or small would depend on the number of locations and how the facility was managed. Dale thought it would be helpful to add smaller franchise owners of national chains to the owner occupied market segment characteristics.

### VP Matrix – Best Practices column – Pepper Hunziker

Pepper Hunziker positioned the discussion by asking the group -- what best practices would you provide someone who was going to meet with owners? How would you mentor them as staff for a service provider who wouldn't have a structured utility program based on Standard 180 to depend on to market their services?

### Owner Occupied – Small

- Address the bottom line cost. What would they need to come up with out of pocket? You'd need to provide a budget, timeline and scope for any project. (Dale R)
- Convince the owner of the value of a site audit. HVAC equipment inventory, visual or other assessment of equipment condition. Put together a report which breaks out what it would take to check-out all of the equipment and an estimate for returning equipment to proper operating condition. Finally, you'd provide an estimate of what it would cost to maintain the HVAC systems at this higher level of operation. (Dale R)
- Qualifying process – Don Langston
  - Phone call for initial qualifying. Information for owner to provide for a proposed first meeting:
    - Review current maintenance program or contract to determine scope
    - Request copies of past utility bills to get a handle on normal energy spend
    - Building square footage
    - How long the owner has occupied the premises?
    - Are they the original or a second or third owner?
    - Summary of HVAC equipment and owner's assessment of condition
    - Was the owner prepared to spend their own money to repair broken equipment – if they expect a utility program to pay for this, free to them, a CQM program probably wasn't a good fit
  - How engaged is the owner? If no time to gather this type of information, pass on a meeting until it can be provided.
  - Prior to meeting if owner is engaged, conduct a high level survey of HVAC equipment condition, review current maintenance approach to determine what level of priority it has with the owner. How important is equipment maintenance, occupant (employee and customer) comfort, benchmark building energy spend against national standards.
- A best practice for the service providing firm would be to develop a “knockout list” of qualifying and information seeking questions to use before contacting any prospective customers. (Pepper H)
- Part of service company sales staff's responsibility would be to determine whether they really have a prospective client that they could help. Whether the potential client was willing to put some “skin in the

## WHPA Goal 2: CQM Standard 180 User Guide Working Group Thursday August 25, 2016 Meeting Notes

game” to improve their situation. Like Don described, you have to ask some pointed questions to determine whether going any further with this prospect was worth pursuing. (Marc P)

- The smaller owner occupied clients generally couldn't have a person on staff to address maintenance until they get to 10 to 20 locations. The owner might be looking for someone who specializes in an area like HVAC rather than a general facility maintenance person or handyman who could address lighting, replacement of condenser or other fan motors, for example. Different owners would have different needs. (Donald P)
- A contractor has a tough time offering services to an owner who has staff going to the same wholesale house for replacement parts. Those owners are often “tainted” on product costs and discount or don't value the expertise which a good contractor could provide. If owners are focused only on “cost” then there might not be a good fit for a contractor, generally. That would even be more the case considering a Standard 180 based approach. Even though Standard 180 was stated to be a minimum level, in actuality it was an approach far above the norm, a much higher level of maintenance. (Don L)
- A Standard 180 approach to maintenance was not really a minimum standard, as Don Langston stated. It was really aspirational for most contractors. Setting performance objectives, tracking progress and reporting and meeting with customers to discuss results was really a reach for a lot of firms, even good ones. (Dale R)
- When meeting with a prospective client, be sure to get to a question about what they have for a maintenance budget. Discuss what you think could be accomplished that the current budget, or what you thought needed to be addressed that the budget didn't allow. Find out what they can spend. Some can only spend a % of a line item amount. Did that budget include amounts amortized for equipment replacement and major repairs? If not, the current budget wouldn't include expensive expenses which could and should be anticipated. If they want to spend as little as possible, your services are probably not a fit – bow out until they feel the need/pain. (Don L)
- A list of preliminary questions, including financials, could be provided to the owner. Give them something to think about, review, prior to that first inperson meeting. (Donald P)
- “Nobody cares that you know until they know that you care.” People like to buy from others who are enthusiastic about what they are selling. If you don't express that you care, it would be hard to get a customer to care. Enthusiasm is infectious. (Dale R)

### National Account

- Find the champion within the organization who cares and can connect with the real decision-maker. You can't convert someone to be a champion. There might not be one in some organizations. (Dale R)
- “Find the fox,” the one who really has the authority to make the final decisions. You have to find a champion in order to get to that real decision-maker. That will take a lot of discovery questioning. (Michael L)
- You might be brought into an organization to discuss your offering by the decision-maker. But, he/she will not say YES until other people sign off on the proposal. You need the champion to sell this within any organization. They guy who would go to trade shows, read online industry articles on “best practices” for HVAC, talk with their peers about approaches, benefits, downside, costs. The owner won't go to this effort, just a champion. (Dale R)
- Don Langston wanted this user manual development effort mostly focused on potential utility program participants, decision-makers who would consider being incentivized to pilot a new maintenance approach for several years. Dale Rossi thought that the case for those within and outside of maintenance programs was really very similar. In fact, many national accounts purposely chose to not participate in utility programs for a variety of reasons. Program start/stop, changing rules midstream, overly complex or bureaucratic processes stopped many.

Pepper Hunziker observed that it seemed that many of the suggested “best practices” were pretty directly related to strategies to address barriers to adoption. She wasn't sure how they should start revising how this information was organized.



## WHPA Goal 2: CQM Standard 180 User Guide Working Group Thursday August 25, 2016 Meeting Notes

Dale Rossi agreed. That's where they were in the process. They would need to produce a draft which the WG members could debate and refine over the next two meetings. They'd collected all of the general information they had time for.

### Closing Comments/Adjournment

Dale Rossi said that the one remaining User Guide Outline topic to cover was customer facing reporting. That would be the focus for their last investigative meeting. He asked members to think about what kind of evidence or documentation they thought would be useful and effective to support client continuation of Standard 180 based maintenance practices.

The next meeting was scheduled for Thursday September 1 at 10 am PDT. It would be their last investigative meeting. The agenda would be to focus on the User Guide Outline topic – Customer Facing Reporting. After the September 1 meeting, the WG would take a break while Dale and Pepper prepared a draft which the WG would work on at the two remaining meetings – planned for September 22 and 29. The goal was to deliver this finalized work product to the full CQM Committee at their October 11 meeting so that it would be presented to the Executive Committee for consideration by or before their December 14 meeting.

The meeting was adjourned at 11:02 am PDT.

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### Action Items and Key Decisions

August 11 ACTION: remaining meeting attendees concluded that schools and each of the MUSH market segments should probably be grouped but given their own rows as the group collected more detailed information on each. The VP Matrix should be revised to reflect these sub-segments. Ongoing.

July 18 ACTION: Todd van Osdol would talk with Scott Higa about how they thought the implementation of AB 802 might have an impact on their program and also about how they might consider addressing the energy use reduction sort of performance objective which Dale Rossi described. Ongoing.