Call to Order

The meeting was called to order at 10:04 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. 10 voting members, 2 non-voting members, 0 guests and 1 staff were present for a total of 13 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.				
CQM User Guide Working Group Voting Members				
ACCA (Air Conditioning Contractors of America)	Donald	Prather	Contractor Association	P
Air Management Industries	April	Yungen	Contractor (Nonresidential)	
Aire Rite AC & Refrigeration	Don	Langston	Contractor (Nonresidential)	P
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	
Charles Segerstrom, Energy Efficiency Consulting	Charles	Segerstrom	Energy Efficiency Program Consultant	P
CLEAResult (formerly PECI)	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	P
Honeywell ECC, Commercial Buildings, Trade	Michael	Lawing	Controls (Manufacturer or Distributor)	P
HSGS (Honeywell Smart Grid Solutions)	Shayne	Holderby	Energy Efficiency Program Consultant	
Marina Mechanical	Denny	Mann	Contractor (Nonresidential)	
National Comfort Institute	Jeff	Sturgeon	Educator, Trainer	P
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	P
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	P
CQM User Guide Working Group Non-Voting Members				
CLEAResult	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	P
███				
Adrienne Thomle, Consulting**	Adrienne	Thomle+		
Fresno Unified School District	Frank	DiLiddo		
Little Caesar's **	Wendy	Gallo+		
WHPA Staff (Non-Voting)				
BBI (Better Buildings Inc.)	Mark	Lowry	WHPA Executive Advisor/BBI COO	
BNB Consulting/WHPA Staff	Bob	Sundberg	Energy Efficiency Program Consultant	P (scribe)
Enpowered 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; (P) 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.

Welcoming and Member Introductions

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

Approve Previous Meeting Draft Notes

The August 25 meeting draft notes were distributed August 31. Finalized meeting notes would be posted to the WHPA website by Bob Sundberg.

ACTION Items

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.

AGENDA

Topic	Discussion Leader	Desired Outcome
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 – Best Practices column additions.	Pepper Hunziker	All members would understand what was discussed and/or decided at the previous meeting and provide final revisions or corrections.
User Guide Topic – Customer Facing Reporting	Dale Rossi	Discuss what sorts of data, valuable evidence and documentation could be provided to clients in support of Standard 180 based maintenance. Frequency of reporting and client meetings.
Confirm 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 two remaining WG meetings. The final two meetings would be focused on finalizing their 2016 work product.

Review previous WG meeting focused 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.

Pepper Hunziker, Tres' Laine Associates, indicated that she would work to finish a draft of the VP Matrix and include all of the previous school market segment and any other WG input for their final work product review sessions.

User Guide Topic Discussion – Customer Facing Reporting – Dale Rossi

Dale Rossi, FDSI, asked attendees what they thought customer facing reporting should look like and include based on the standard. He reviewed that in the current standard there was some required documentation in Section 4.2.2.e. It seemed to be limited to documenting that the inspection and maintenance tasks were done on time. Documentation had also been mentioned in the description of performance objections but there was no mention of how or when they should be reviewed.

4.2.2.e Documentation. A minimum inspection and maintenance documentation package shall consist of the following items:
a. listings of HVAC systems and system components with associated performance criteria pertinent to the facility,
b. *inspection* and *maintenance tasks* and the method of tracking (automated or manual), and
c. sufficient record detail and *verification* (written or electronic) to demonstrate implementation of the maintenance plan.

The inspection and maintenance document directory shall provide easy access and be well organized and clearly identified. Emergency information shall be immediately available and shall include emergency staff and/or agency notification procedures.

Dale asked attendees what sort of customer facing reporting would be valued most by customers and help them appreciate the value of their Standard 180 based maintenance program?

Marc Pickett, AMS, commented that this was the most essential element of their quality maintenance program. The year over year review with their customer about what the approach had accomplished. It was the chance to discuss whether they'd achieved their energy efficiency goals. How did they do against goals for the repair and downtime history? How did they do on the comfort and indoor air quality goals? Ideally, these would all be reviewed at intervals and at the end to benchmark how they performed with documentation to back it up.

Dale Rossi mentioned that Don Langston had previously stated that he wasn't able to get most customers to sit down and talk with him to review goals and progress. Most of his customers didn't want to take the time. He asked how they could get customers to want to take the time to review goals and status.

Marc Pickett responded that he didn't get push back from his customers who had gone down this path of testing a Standard 180 based maintenance approach unless they'd gone into the program purely for the incentives. His experience was that most customers did want to know what they'd gotten for the higher cost of maintenance. Discussion results on paper, documentation which showed what the approach delivered allowed his customers to show those results to their upper management. He thought that maintenance results with objective documentation was of great value. He had not yet been able to deliver those sorts of reports and documentation. SCE had stated that they wanted to get to the point of being able to generate an actual report that would show those kinds of accomplishments but just hadn't gotten to that point yet.

Dale Rossi asked what type of report did they think would be the most important to deliver to customers, that they would value the most?

Marc Pickett responded that the most important report would depend on what goals that individual was most interested to achieve. Energy efficiency and energy savings, reduced downtime and service records, improved comfort and reduced complaints. It would depend on the customer and why they bought into the program or the Standard 180 approach.

Dale Rossi commented that he thought the energy efficiency and usage/savings was about the easiest to calculate and show. He asked how you'd gather data on goals like improved uptime.

Marc Pickett said his firm often collected data on runtime from building automation systems. Otherwise, they'd need to dig through service records to find when and for how long specific units were offline and quantify that data against previous history. Collecting that sort of data should already be built into a contractor's work order process and system. The new system they'd recently upgraded to could now provide integrated data from accounting, service records and dispatch. He'd previously had to go through all their different and separate software systems to collect that sort of information. It was challenging and tedious. They'd moved to SAMPro^{tm} integrated facility software.

SAMProEnterprise -- integrated facility software
http://www.databasics.com/field-service-software-for-contractors/

Dale asked the group to consider the situation where 90% of the units were standalone packaged units not on a building automation system and that the contractor didn't have a sophisticated, integrated service software system which might be able to generate valuable reports. Aside from meter data, what kind of reporting could most contractors offer their customers? Some could come from the scheduled maintenance inspections. He asked what sort of data could be collected which would be very valuable? What data could you be collecting from quarterly inspections and use in a report for an annual review? How would you organize that data into a report? What would it look like?

Marc Pickett thought that they could include a quantification from the maintenance task lists. How many were 100% in working operation, how many needed repairs to function properly, how quickly those repairs were completed and units put back into service. They could list the repair issues encountered. Economizer systems not functioning properly, belts which needed replacement, coils which needed cleaning, whatever had made the unit non-functional. You might simply have a line by line list of units being maintained, functional status for each unit, issues addressed and a summary at the end.

The group discussed providing a report table with units listed in rows and key maintenance task/components in columns. Then moved onto how they could keep track of unit status and document when units needed replacement. Either by age past expected life expectancy or by condition. Tracking year by year motor amp draw going up, a string or repairs needed to keep it operating, loss of heat exchange capability or other criteria. The crux seemed to be whether contractors were willing to take measurements and track changes multiple times each year to be in a position to target units which should be proposed for replacement. Dale Rossi indicated that the standard only required measurements for establishing a baseline and not even annual additional measurements.

Dale Rossi approached capital equipment replacement evaluation by rating each unit by:
1. Age
2. How critical unit is to the building functioning
3. Original design unit efficiency
4. Any history of reliability issues from customer's perspective
5. Technician's opinion about whether the unit should be a candidate for replacement

Dale gave different weightings to each criteria with a higher initial weighting to age. He then grouped all units into Good, Medium and Bad sets. Next, he went through the Bad set with different weightings, especially for #2 and #5 criteria. If they considered normal life to be 15 years of operation, he gave them 1 in 7.5 as candidates for replacement, twice as many candidates as age alone would provide since there were always other issues like a leased

unit or someone was moving. But, having a technician ask whether a unit was reliable and/or should be a candidate for replacement weren't even questions raised in the current standard. He thought that maybe they ought to be asked. He asked whether members thought those types of questions were ones which this group should recommend be added to the standard? What did the group think about adding condition assessment analysis to the standard?

Marc Pickett agreed that Dale's description was the type of process his firm used that highlighted individual units which were candidates for replacement. Dale Rossi indicated that the individual unit evaluation process didn't work for most of his firm's clients who had thousands of units to address. In that situation they needed a method to analyze across an entire portfolio of locations, not unit by unit. But, in either case, should they consider suggestion that some assessment process should be put in place to anticipate the need for unit replacement?

Donald Prather thought the process for unit or portfolio analysis should be left up to the responsible party and their service provider to determine. He thought that 4.2.2.e documentation rolled into the 4.3 maintenance plan execution and 4.4 maintenance plan revision sections. It all had to do with reporting back to people. All of what had just been discussed could be written into the maintenance plan. He didn't think that had to be included in the standard but it could certainly be spelled out in a user guide.

Dale asked Donald how could it be in a user guide if it wasn't referred to in the standard itself? He disagreed with Donald and thought that assessment for replacement should be added to the standard as a required maintenance task. A data point to report, an input from the technician.

Donald did agree that a technician who found that he couldn't do the maintenance on a unit would be in a position to report that it needed to be repaired or that for several reasons it should be considered as a candidate for replacement.

Michael Lawing provided a parallel example of the health summary he received. A year over year comparison on key medical health indicators in metrics as well as graphed so he could see any pattern easily. The graph being color coded in reds and greens to catch his attention for indicators which were serious or out of the norm. A maintenance technician could be trained to note and report these same sorts of things in the HVAC world.

Bob Sundberg, WHPA staff, believed that Dale and Donald had established one important item, unit assessment for repair or replacement, which could be included in a user guide. Were there other key items which would also be valuable to include?

Dale Rossi responded said that he was operating from the assumption that they could only include customer facing reporting from data which the current standard clearly required be collected while delivering maintenance. He thought that the standard would have to be modified to include tasks which collected the data required to assess the need for capital equipment replacement. The current standard did not require that sort of information to be collected. He thought they would need to modify the standard in order to get the information needed for such a report. Making that sort of suggestion was not a problem since he and Donald were both on the Standard 180 Committee and User Manual Subcommittee.

Donald Prather said that the committee had revised the references to repair/replace as something which the technician would note, document and respond back. That would now read as an action the technician would look at and report on he thought repair or replacement was needed. Donald thought that would now be covered in a revised version of the standard.

Dale Rossi differed in his interpretation and thought those "repair/replace" references in Section 5 all were found in specific equipment maintenance tasks. Those component maintenance tasks did not address a question about whole unit replacement. From his perspective, they could only be suggesting reporting from universally available data for each machine and from the data collected during maintenance service. For example, energy data could be collected

from a building automation system or the building meter since every building had a meter and received monthly utility billing on usage and costs.

Bob Sundberg, WHPA staff, asked whether the data used for customer facing reporting had to be limited to what was universally available and stated requirements within the main body of the standard? There were references in the Standard 180 FOREWORD that the standard was never intended as a limitation to what a service provider could offer, rather, it was a minimum. The FOREWARD referred to other sources such as ASHRAE Guideline 32 which dealt with guidance on how to achieve high performance and other goals beyond a minimum standard of maintenance.

Quoted from 2012 Standard 180 FOREWARD:
"This document is not intended to limit the level of service provided or recommendations made by a service provider. Those delivering HVAC maintenance are encouraged to consider and recommend energy conservation measures or technology improvements that would help maintain or increase thermal comfort, the energy efficiency of the HVAC system, and indoor air quality."

https://www.ashrae.org/resources--publications/bookstore/guideline-32-2012

ASHRAE Guideline 32 offers guidance for operating and maintaining buildings with goals of sustainability and high performance in mind.

The purpose of this guideline is to assist those who operate and maintain buildings to achieve high performance: safe, productive indoor environments; low economic life cycle cost; low energy, water, and resource use and low impacts on the environment. It applies to the systems of commercial, institutional, industrial and laboratory buildings as they affect occupant comfort, indoor air quality, health & safety; and the energy & water consumed. These systems include the building envelope, HVAC, plumbing, complementary energy systems, utilities and electrical systems.

Dale Rossi thought that those other levels might be considered but only after they'd established what kind of reporting was supported with the standard itself. What reporting could be accomplished from the minimum standard, first. He proposed that they first establish customer facing reporting from data they knew they could get according to the current standard.

Todd van Osdol, CLEAResult, stated, regarding unit replacement, that within their utility program participating contractors established performance objectives which were not all detailed in the standard but were an outgrowth of efforts to achieve the standard's three primary goals. He wondered whether the standard wasn't asking too much of contractors if the data needed for reporting was not readily or universally available.

Dale Rossi responded that in the proposed standard revisions it required a party to define its data source for their performance objectives to be considered valid objectives. Also, the standard indicates that the building owner/responsible party is responsible for collecting this data. It doesn't name the service provider as responsible for this. A contractor couldn't make a building owner do anything. But, a utility program could have a requirement that building owners had to provide certain information which was only directly available to them in order to participate.

Scott Higa, SCE, stated that he saw a lot of value in tracking progress toward performance objectives developed between the owner or their designated representative and their service provider. The objectives developed needed to be measurable (metrics established and agreed upon) and achievable to be valid. He thought that the method for tracking should be part of the development of those performance objectives. He added that you could add a section to that report for non-routine adjustments. That could address units that died and needed to be replaced, if occupant use changed significantly that would impact building load requirements or if a unit could not be repaired cost-effectively. That section of the report could also track energy efficiency improvements like the installation of advanced economizer systems later on in their program, say in year two. They could then revise their goals for energy savings, probably higher.

Dale thanked Scott for providing clarity to the process. He heard Scott state that customer facing reporting really started when the parties were developing their performance objectives. The performance objectives had to have measurable and available data sources to allow progress to be tracked. Also, that the customer facing report should clearly state the performance objective which had been agreed to. Then, how would you track those non-routine items, how would you collect the necessary data to track their progress? How would you record and track those items?

Scott Higa responded that, being a low-tech guy, he'd simply use a spreadsheet with a list of the performance objectives listed in rows on whatever periodic basis was decided. Those non-routine items could be added and discussed in more detail at those periodic meetings where they discussed if there were any changes in occupancy, space use, HVAC equipment unit health. They could review those non-routine items which had occurred between meetings to get them established on the performance objectives spreadsheet for tracking.

Todd van Osdol added that this was covered under Section 4.4 which required a review of the maintenance program on some established schedule, what had changed since the maintenance plan was established.

Marc Pickett, AMS, added that this process could be part of the intent to deliver quality assurance for the program. He thought the process just discussed was really necessary. What if they added VFDs to the fan motors in year two or upgraded the efficiency of the fan motors? Those kinds of improvements needed a tracking process to see if they improved system performance. These improvements could be documented first with the work proposal, then with the record of the start-up. Metrics for what was in place and the new component, higher efficiency motor, could be recorded.

Dale Rossi asked how that retrofit/upgrade information would get integrated with the maintenance information? How would you get this test in/ test out and measurement data in order to develop a report? Where did it state in the standard that those kinds of changes and improvements should be recorded?

Bob Sundberg, WHPA staff, read aloud Section 4.4, Revision of the Maintenance Program. He thought that this was where the standard required that any component and/or system changes be recorded. The standard required this but, as they'd noted before, it didn't describe or limit how that should or could be done. As Donald Prather had stated earlier about standards, that would be left to the owner/responsible party and their service provider to determine.

Dale Rossi accepted Bob's point but made his own that the standard stated that performance objectives had to be established. The standard, as far as he'd determined, didn't state that they had to be reviewed or tracked.

Scott Higa thought that operationalizing the standard was the point of the user guide. The add a "how" to what the standard stated was a requirement.

Dale Rossi then stated that he understood Scott to suggest that the user guide include best practices which were outside of and beyond requirements stated in the standard. That there was no requirement in the standard to have to do those best practices. You could operationalize the existing standard by not doing any of the things discussed. He didn't know of any references in the current standard to when occupied use has changed or of upgrading any HVAC components. He couldn't connect the dots for how they would collect the data necessary to execute those best practices from the current standard's inspection program. He thought it was a good idea and would like to do it but didn't get the connection to the current standard. Did they really want to do this or to make suggestions to revise the standard and make some sort of review of and reporting on performance objective progress part of the standard itself?

Scott Higa rephrased Dale's question to state that the user guide be a collection of best practices to operationalize Standard 180. He believed this was supported in Section 4.4 Revision of the Maintenance Program in the standard. The first point addressed any modifications to the building that would impact HVAC performance objectives. The maintenance program would then need to be reviewed and revised. He thought that this proactive activity was

supported in the current standard. It addressed the "what" but left the "how" to be determined as had been mentioned before.

Dale Rossi didn't believe that the responsible party had a right to call for the maintenance program review according to how he interpreted the current standard. For example, how would the contractor who would be producing this customer facing report get the information about how use of building space had changed?

Scott Higa responded that the information about a change in use would come from the responsible party during one of the meetings with their service provider. The user guide could provide some guidance on how that sort of a productive discussion could occur.

Dale Rossi asked that if the user guide provided that guidance, did they think that the standard should require those sorts of discussions? If they thought the user guide should suggest those sorts of discussions, how would they suggest the necessary information?

Scott Higa responded – NO. Their effort was to work on a user guide, not to primarily be looking on producing suggestions to improve the existing standard. The required information might or might not be readily available. That was where it was important for the responsible party and their service provider to work through reasonable performance objectives. He could see Dale's point about making suggestions to revise the standard and make it more directive, prescriptive, provide more direction on how the requirements could be met. But, he felt that they had to work with the standard as it was and focus on how a user guide could provide the best suggestions on how to execute what the standard stated and implied.

Dale Rossi said he didn't want to make the standard more prescriptive. Only more consistent. So that if an action was required, the underlying concepts around that action were clear. He and Donald Prather were both on the Standard 180 committee so they could easily relay suggestions from this group directly to the committee which would attempt to revise the standard to more directly support the sorts of operationalizing actions they'd been discussing. They could inform that committee of what this WG and the full CQM Committee think the revised standard should address. He wondered if the quarterly maintenance tasks should include a requirement to notice if use of the space had changed. If the standard required that should trigger a review, how would it get reviewed if the service provider didn't have a task to assess occupied space use?

Dale Rossi continued and stated that beyond performance objectives developed from the three key goals, if there were other performance objectives, you could determine where that data would come from, which would be covered by revisions the Standard 180 Committee had already agreed to. If the group was saying that the customer facing reporting was reporting the findings and metrics defined in those additional performance objectives, he thought that was also covered. It was the non-periodic, non-routine situations that he was still having a hard time with.

Todd van Osdol, CLEAResult, reminded the group that Marc Pickett had suggested earlier that the service provider could report on what tasks had been completed during their maintenance inspections as well as what they'd encountered which required additional work, repair or replacement beyond the normal inspections. He wondered whether they could suggest providing a summary report, progress against their objectives in addition or rather than just a list of completed tasks? Could more of an executive summary against the overall objectives provide more value?

Scott Higa thought that completed task list could just be an appendix to the executive summary which Todd had just described. That long list of checked boxes wouldn't be all that interesting.

Donald Prather, ACCA, added that since much of the intended use for this user guide was intended to be contractors participating in the QM programs, it should be able to go "off the reservation" to offer some of these best practices not so clearly defined in the current standard. To state, here in California, this is what the WG suggests would be

examples of how you might successfully apply this standard with your customers. Examples of some things that might not be strictly required by Standard 180 but that we'd suggest are highly valuable and should be done. Examples:

- The technician notes on a maintenance inspection that some HVAC equipment doesn't work right or
- Use in the building has obviously changed, rooms or walls had shifted

Dale Rossi responded that Donald's examples didn't seem to fit the picture he'd just understood from Scott. Unless there was a task to inspect and assess a unit's operation or a building's change of use in space, he couldn't yet figure out how that would trigger customer facing reporting.

Bob Sundberg, WHPA staff, suggested that development of a user guide customer facing reporting based on performance objectives was a pretty big accomplishment. What Donald suggested seemed to him to be even a step beyond. The user guide could include suggested performance objectives, means for data collection and analysis as well as examples of different ways to provide customers with meaningful summaries, reports and presentation materials.

Dale Rossi agreed that making concrete suggestions about customer facing reporting based on performance objectives, he thought, was about as far as they could get at this time. They'd only had one meeting to scope out what this topic could address. It would take additional focused effort to go any further.

Closing Comments/Adjournment

Dale Rossi thanked the group for a very provocative discussion. The suggestion that customer facing reporting would be based first on what performance objectives were established was a huge step forward. And, the suggestion that reporting could be extended to non-routine activities outside the scope of the current standard tasks would be good to include in their report to stimulate more thought on that topic.

Dale pictured their work product to be a summary of discussions on the five selected topics with their deep dive into communicating the value proposition. Although the value proposition matrix was currently in spreadsheet form to help organize their thoughts, he didn't know that the WG work product would include both a text document and a matrix spreadsheet. He and Pepper would work on how they thought that information might be most effectively communicated and would make a proposal and provide a draft to the WG.

ACTION: Dale Rossi and Pepper Hunziker would provide a draft of the WG work product prior to the next meeting. It would include content from WG discussions on the five selected topics and information collected in the VP Matrix.

The next meetings were planned for September 22 and 29 at 10 am PT. 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 final meetings. The goal was to deliver this finalized work product to the full CQM Committee for 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 11:25 am PDT.

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Action Items and Key Decisions

September 1 ACTION: Dale Rossi and Pepper Hunziker would provide a draft of the WG work product prior to the next meeting. It would include content from WG discussions on the five selected topics and information collected in the VP Matrix.