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CHEERS

Quality Assurance Program for 2013 Providers

"What's measured improves." - Peter F. Drucker

Alex Vantaggiato

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Policies

Introduction

- a. This document outlines the CHEERS Quality Assurance Program (QAP) and what it entails. CHEERS QAP consists of the following elements:
 1. Quality Assurance Inspections (QAI)
 2. CHEERS Corrective Action Process (CAP)
 3. CHEERS Complaint Response System (CRS)
- b. The CHEERS QAI program provides details on how CHEERS manages its annual CEC mandated QA requirements for CHEERS certified Raters.
- c. The CHEERS CAP program provides further clarification on how Raters are evaluated when further review is required of a Rater's work.
- d. Finally, the CRS program summarizes how CHEERS effectively manages all inquiries and complaints that are conveyed to CHEERS.

Definitions

- a. **Annual QAI** means the 12-month calendar starting on January 1st and ending on December 31st. CHEERS will evaluate and conduct all QAI volume requirements based on the aforementioned 12-month calendar cycle.
- b. **CHEERS "Database"** is synonymous with the CHEERS "Registry."
- c. **Rater File** is an internal electronic file containing Rater records, kept by CHEERS for every certified Rater.
- d. **Rater Probationary Status** means a temporary period of time in which a rater will still be allowed to conduct ratings, but will be subject to stricter review and QA standards.
- e. **Rater Suspension** means a temporary period of time in which a rater will not be allowed to conduct ratings. Rater suspension may be followed by a period of probation.
- f. **Rater Decertification** means that the rater has had his/her certification revoked by CHEERS and will no longer be able to conduct or certify ratings under CHEERS. Decertification is permanent in nature.
- g. **QA** means Quality Assurance and refers to the overall Quality Assurance process.
- h. **QA Manager** is the responsible CHEERS designee overseeing the QA process.
- i. **"QA Program Statistics" Report** is the report pulled by the QA manager from the CHEERS registry to determine the QA that has to be conducted by the QA Reviewers.
- j. **QA Report** is the form used by CHEERS QA Reviewers during a Quality Assurance Inspection. A PDF copy of a QA report is uploaded to the CHEERS Registry within 2

business days following the completion of a Quality Assurance Inspection. The PDF copy of the QA Report is available to CEC staff for retrieval and review.

- k. **QA Reviewer** is the responsible CHEERS designee conducting the QAI and reporting it to the QA Manager.
- l. **“QA Site List” Report** is the report used by the CHEERS QA Reviewer and QA Manager to track and QA details at the lot (address) level. The QA Report used by CHEERS QA Reviewers during Quality Assurance Inspections is available as a PDF download directly from this “QA Site List” report.
- m. **QA Testing Results** are the findings (pass/fail) of conducted Quality Assurance Inspections.
- n. **QAI** means Quality Assurance Inspection and refers to the inspections conducted as part of the QA process.
- o. **QAI Class 1 Failure** means the Rater has failed some portion of the CHEERS QAI and that the QAI failure is due to *perceived* Rater misunderstanding, improper training, and/or human error.
- p. **QAI Class 2 Failure** means the Rater has failed some portion of the QAI and that the QAI failures is due to *perceived* Rater negligence, improprieties, or general lack of willingness to provide truthful and accurate ratings.

Background

CHEERS is certified by the California Energy Commission as a HERS provider for HERS verifications in the State of California. As a certified HERS provider, CHEERS must maintain a QAP that conforms to all state mandated requirements. These requirements are listed below. During HERS rater training, these requirements are reviewed and explained. Any CHEERS certified HERS rater that has any questions concerning any aspect of the QAP should contact CHEERS directly.

a. **Rater Conduct and Responsibility**

- 1. Raters shall not provide untrue, inaccurate, or incomplete rating information or report rating results that were not conducted in compliance with these regulations.
- 2. Raters shall not accept payment or other consideration in exchange for reporting a rating result that was not in fact conducted and reported in compliance with the CEC HERS Regulations.

b. **Conflict of Interest Guidelines**

1. CHEERS certified raters must be *independent entities*¹ per CEC Code of Regulations detailed in Title 20, Chapter 4, Article 8, section 1673(j).

c. **CHEERS QA Personnel**

CHEERS has a dedicated QA Manager and QA Reviewers reporting to the CHEERS Executive Director. The QA Manager and Reviewers are responsible to manage, administer, and track the performance of the CHEERS QA Program.

d. **General QA Program Guidelines**

The following guidelines apply to all homes evaluated under the CHEERS QA Program:

1. CHEERS randomly select homes chosen for CHEERS QA inspections.
2. At a minimum, QA percentage thresholds are met by rounding up to the nearest whole number for each measure tested by a Rater.
3. Raters are not informed that a building/installation will be field checked until after they have completed their original rating(s) and all required 3rd party verification paperwork (CF3R) has been entered into the CHEERS Registry and signed.
4. All QA inspections conducted by CHEERS QA personnel are documented in the CHEERS database. The CEC will have on going access to the results of all QA inspections in the CHEERS database and associated summaries.
5. QA reports are placed in the Rater's file. Within 5 business days of receiving a request from a Rater, an electronic (PDF) copy of the completed QA report will be sent to the Rater.

CHEERS QA Inspections (QAI)

CHEERS QA Personnel will independently repeat the rating being evaluated to check whether the Rater accurately completed the rating and determine whether information was completely collected and reported, following the guidelines below:

a. **Initial Review**

1. CHEERS QA Personnel will conduct an initial review of rating documentation on **at least** the first 5 homes that are rated by a CHEERS Rater, in accordance with HERS Regulations, section 1673(i)(2).

***Note:** A home rated under CHEERS direct supervision during a rater's certification process will not be counted in the 5-home requirement.*

b. **Tested Homes: Annual QAI Requirements (1%)**

¹ *Independent Entity* means having no financial interest in, and not advocating or recommending the use of any product or service as a means of gaining increased business with **Providers, builder, subcontractor installer** of energy efficiency improvements field verified or diagnostically tested, and any **firm** or **person** that performs work on the home for a California Home Energy Audit or a California Whole-House Home Energy Rating.

1. Annually evaluate the greater of 1 rating or 1% of the raters' past 12 months total number of ratings, rounded up, for each measure tested by the rater.
 2. Raters shall not be informed that a building or installation will be field checked until after they have completed the original rating. The field check shall occur after the submission of the Certificate of Field Verification and Diagnostic Testing (CF3R)
- c. **Sampled Homes: Annual QAI Requirements (1%)**
1. For houses or installations passed as part of a sample group, but not field verified or rated by a Rater, CHEERS QA personnel will evaluate the greater of 1 house or 1% (rounded up) of a Rater's annual sampled houses or installations.
 2. The QAI shall be blind, meaning CHEERS will not inform the installer or the Rater ahead of time of the QAI taking place.
- d. **Entire Pool: Annual QAI Requirements (1%)**
1. Perform QAI on 1% of all annual ratings (tested homes only) conducted through CHEERS from the entire pool of ratings in the CHEERS database.

Procedures

QA Status Reporting

- a. All QA requirements will be tracked and generated in the Registry. There are two main report the registry generates from the data QA data inputted by the QA Manager:
 1. QA Program Statistics Report
 2. QA Site List Report

Personnel with Administrative privileges will be able to log in and review both reports. In addition, the reports will be automatically sent to the CEC at predetermined intervals.
- b. The QA Program Statistics report will track the following for each Rater:
 1. Name of Rater
 2. Rater Certification Number (*CHEERS assigned rater identification number*)
 3. QA rate (1% or 2%) by Measure and by Tested or Sampled lot
 4. Type of measures performed by HERS Rater
 5. If the measure was Tested or Sampled by the HERS Rater
 6. Total measures performed by the HERS Rater
 7. Number of measures that have been QA'd by CHEERS
 8. Current QA percentage completed by CHEERS for each measure
 9. Last CHEERS QA Completion Date for each measure
 10. QA remaining to be completed for each measure performed

11. Calculated Totals

- i. For 1% Rater Tested: Total Tests, Total QA Required, Total QA Completed, Total Percent QA.
- ii. For 1% Rater Not Tested (sampled): Total Sampled, Total QA Required, Total QA completed, Total Percent QA.
- iii. For 2% Rater Tested: Total Tests, Total QA Required, Total QA Completed, Total Percent QA.
- iv. For 2% Rater Not Tested (sampled): Total Sampled, Total QA Required, Total QA completed, Total Percent QA.

c. The QA Site List report will track the following for **each QA completed on a specific lot:**

1. The QA form used by the QA Reviewer on the site will be available for download in pdf
 2. Rating Company who was QA'd
 3. Rater who was QA'd
 4. Specific Measure that was QA'd
 5. Date of the original rating
 6. Whether the lot was a tested or sampled lot
 7. The QA date
 8. QA pass or fail results
 9. Whether the QA conducted was counted for the Rater QA% or the overall database QA%
 10. The builder's name
 11. The project name
 12. The site address
 13. The site city
 14. The QA Reviewer's name
 15. The list of the forms associated with the measures that were inspected
- d. All of the above QA data can be retrieved from the secured side of the CHEERS registry on an ongoing basis by choosing the appropriate report, under the "Reports" tab, and "2013 Standards > CA Energy Commission" sub-tabs.
- e. The QA Reviewers are assigned a Rater based on their geographical location. It is the Reviewers responsibility to monitor the QA Program Statistic Report to ensure the proper amount of inspections are scheduled.

- f. Once identified, the QA will be directly handled by the QA Reviewer while progress is still monitored by the QA Manager.

Internal QA Workflow Tracker²

- a. The Internal QA Workflow Tracker can only be accessed by designated CHERRS personnel, and is found at the following link:
http://artemis/sites/consolinside/cheersinternal/_layouts/15/start.aspx#/Lists/Rater%20QA%20Tracker/By%20QA%20Reviewer.aspx
- b. The QA manager will assign Raters to the appropriate QA Reviewer via the tracker for scheduling. This custom made tracker will outline the following:
 - 1. QA status
 - 2. Rater Name
 - 3. Builder/ Project name (If applicable)
 - 4. Lot address
 - 5. Scheduling notes in regard to the lot
 - 6. Assigned QA Reviewer
 - 7. QA Date & Time
 - 8. QA Type (1%, 2%)
 - 9. Lot Tested or Sampled
 - 10. Measures inspected
 - 11. QA results
 - 12. Failure actions
 - 13. QA Reviewer comments
 - 14. QA form upload status
 - 15. Date of QA retests and associated measures
 - 16. Results of the QA retest
 - 17. Date of increase of QA %, if applicable
 - 18. Date of notification to other providers for QA % increase
 - 19. Notes about specific findings being reported from the field
- c. The QA manager will enter items 1, 2, 6 and 8, for the initial assignment. No lot specific information is entered as the lot is unknown at this time. The initial status will be “Scheduling required.” Once the basic information regarding the lot is entered, it will then be passed on to the QA reviewers.

² The Internal QA Workflow Tracker is an internal tool for CHEERS personnel to track progress of QA within the CHEERS QA inspection process and is not used for reporting purposes to any outside agency or organization.

- d. The QA reviewers will check the tracker daily, and assignments will be entered based on lots entered in the registry by Raters. Alerts can be setup in the tracker to notify the QA reviewers additional assignments were entered.

QA Scheduling

- a. The QA scheduling will be directly handled by the QA Reviewer. Calls will be placed to homeowner/builders in the effort to schedule the QA inspections appropriately.
- b. Contact will be initiated by all available means (i.e. Phone, email, etc).³
- c. Once scheduling is complete, lot specific information can be added to the QA tracker and the QA status will be changed to “Scheduled.”
- d. If scheduling is unsuccessful within 7 business days of initial contact attempt, the QA manager will be notified and a determination will be made as to whether additional attempts will need to be made, or the QA assignment will be dismissed. If QA is dismissed, the QA Manager/QA reviewers will work on making contact with additional builders in order conduct QA elsewhere.

QA Preparation

- a. Prior to going on site to conduct the QA inspection, QA Reviewers will need to verify the following:
 - 1. All required equipment is available
 - 2. The correct QA forms have been downloaded and printed out
 - 3. Original test results were reviewed
 - 4. Climate conditions are acceptable (i.e. Refrigerant charge)
 - 5. The homeowner is still available for the scheduled appointment

QA Process

All QA assignments will be handled using the same general procedural workflow (Appendix A, B, C) depending on the level of QA

- a. **QAI Failure protocols⁴**

- 1. If a Rater’s work does not pass the 1% QAI, 2 additional ratings of the failed measure(s) performed by the same rater within the last 12 months will be

³ If CHEERS is unable to contact a Rater because of incorrect or outdated contact information, then CHEERS personnel will make extended efforts to locate and track down the Rater (e.g. – contact builders, subcontractors, other raters, etc.). Depending on the circumstances, CHEERS has discretionary authority to categorize the receipt of incorrect contact information as a Class 1 QA Failure and resolve according to CHEERS documented Class 1 Failure protocols.

⁴ If another Provider reports their QA inspection failures to CHEERS, and those failures are by a Rater also certified by CHEERS, the aforementioned Rater will be subject to the CHEERS QAP guidelines contained within this document.

evaluated by CHEERS QA personnel. In addition, CHEERS will report the QA failure on its Rater Registry web site for a period of 6 months.

2. QAI failures during the 1% QAI stage will be classified as Class 1 Failures. A Class 1 Failure designates the need for the impacted Rater to receive additional QAI from CHEERS QA personnel. A QAI failure may be classified as a Class 2 during the 1% QAI stage, if it meets the definition found on page 5 (item m).
3. If a second deficiency is found in the 2 additional ratings evaluated, then the rater shall have 2%, rounded up, of his/her ratings of the failed measure(s) evaluated for the next 12 months by all providers.⁵ Depending upon the nature of the QAI failures, and at the discretion of CHEERS QA personnel, the rater may also be subject to being placed on probationary status and required to obtain additional training and recertification at his/her expense. The Rater may also be subject to immediate additional QAI and/or placed on a probation, suspension, or decertification status depending on the nature of the QAI failure(s).
4. Failure Notification:
 - i. For all failures discovered during the initial 1% QAI, or the QAI on the 2 additional houses, the CHEERS QA Manager and/or QA Reviewer will notify the Rater via email in order to:
 1. Specify time, date, and location of QA conducted.
 2. Specify findings and QAI failures.
 3. Inform the Rater that additional QAI will be conducted and if those were to fail, he/she will have 2%, rounded up, of his/her ratings of the failed measure evaluated for the next 12 months by all providers.
 4. The additional QA will be scheduled as soon as another lot from the Rater associated with the Failure becomes available.
 - ii. At its discretion, CHEERS may also choose to interview the rater in person or by teleconference to question him about the specific protocols of the tests that failed, and ask the Rater to articulate or physically demonstrate the proper way to conduct the tests.
 - iii. The QA Manager will inform other Providers and the CEC in writing or by electronic mail of the raters that need to have additional QAI as mentioned in a.1.i.3

⁵ CHEERS QA personnel will report the QA findings to the CEC and all other CEC certified California HERS Providers. CHEERS will ensure the applicable Rater has at least 2% of his/her ratings of the failed measure(s) evaluated for the next 12 months, but is not responsible for verifying other Providers perform the same increased level of QAI.

5. If additional deficiencies are found during the 2% QAI review, the CHEERS' Corrective Action Process will apply.
6. In addition, if CHEERS QA personnel discover a lack of truth, accuracy, and completeness, they will report such finding on the HERS for 6 months and the Rater will again be subject to the CHEERS Corrective Action Process at the discretion of CHEERS.

Special Note:

Every attempt will be made by CHEERS to communicate with Raters failing the QAI process in an effective, clear, and timely manner. Raters will be given ample opportunity to explain their results to CHEERS. In the event that a Rater disagrees with CHEERS final classification of a particular QAI failure, the Rater will be informed that, per the CHEERS Rater Agreement, CHEERS has final authority to make determinations on QA findings, additional Rater training/recertification, additional QAI requirements, and/or altering a Raters' certification status with CHEERS.

Table 1: Overview of CHEERS QA Inspections (QAI)

CHEERS Quality Assurance Program Summary				
Initial Review of "Rating Documentation"	*Annual Doc & Field QA Requirement (Tested Units)	*Annual Doc & Field QA Requirement (Sampled Units)	*CHEERS Total Rating Database Annual QA Requirement	Failure Protocols
Field Verification & Diagnostic Testing Rater 				

* = CHEERS independently repeats the rating to check whether information was completely collected and reported.

Corrective Action Process (CAP)

CHEERS will adhere to the CAP guidelines outlined below when further evaluation and review is required of a Rater's work.

a. **QA Failures Discovered During 2% QAI Review (Appendix A)**

If a Rater's work fails any part of the QA inspections during CHEERS 2% QAI review, the following steps will be taken:

1. Depending upon the type of QAI failure, the CHEERS QA Manager and/or QA Reviewer will interview the Rater in question either in person or via a conference call. During this interview, CHEERS will:
 - i. Explain the specific findings and QAI failures to the Rater.
 - ii. Question the Rater about the specific protocols of the tests that failed, and ask the Rater to articulate or physically demonstrate the proper way to conduct the tests.
2. As a result of the initial CHEERS interview with the Rater, and based on the facts and information available, CHEERS will make an initial determination and classify the QAI failure into one of the following two categories:

b. **Class 1 QAI Failure (Appendix B)**

These are failures due to *perceived* Rater misunderstanding, improper training and/or human error. For example, the rater conducted the diagnostic testing improperly, or he/she made a mistake during the data entry process. CHEERS will take the action outlined below to address Class 1 QAI Failures:

1. Based on findings, the Rater will be placed on a probationary status or suspended.
2. The Rater will be required to attend an applicable refresher training course, and may have to retake and pass the HERS exam. All expenses related to the refresher course and exam will be incurred by the Rater.
3. Raters placed on temporary suspension will not be authorized to conduct testing on CHEERS' behalf and will be unable to register ratings in the CHEERS database until he/she is able to complete the above refresher training and pass the exam.
4. After successfully completing the refresher course and passing the exam, the next single rating completed by the Rater will be reviewed by CHEERS QA personnel. If the Rater passes this additional (single) QAI, his/her probationary or temporary suspension status will be removed.
5. Per CHEERS' standard reporting process, the CEC will be notified of the aforementioned actions and ensuing resolution.

c. Class 2 QAI Failures (Appendix C)

These are failures due to *perceived* Rater negligence, improprieties, or general lack of willingness to provide truthful and accurate ratings. For example, a rater certifies a rating that he/she never conducted, or certifies a rating knowing that it did not meet prescribed standards. In the event this initial determination is made by CHEERS, the QAI failure will be classified as a potential violation of the CHEERS Rater Agreement.

d. Potential Rater Violation of CHEERS Rater Agreement

Per the standard CHEERS Rater Agreement, CHEERS has the right, upon written notice, to decertify a rater for specified violations referenced in the aforementioned agreement. In the event that a violation is either reported to CHEERS or discovered by CHEERS through its QA Process, CHEERS will adhere to the following guidelines to investigate the matter:

1. Data Collection / Fact Finding

- i. Conduct an internal review with CHEERS QA Manager, QA Reviewer (if applicable) and any other applicable CHEERS staff to gather and validate all sources of information relating to the reported violation.
- ii. Contact any outside parties necessary to obtain or validate information pertaining to the reported violation.

2. Rater Notification

Provide written notification to the applicable rater(s) and include the following information:

- i. Date the violation was reported (or discovered) by CHEERS.
- ii. Details of the reported violation.
- iii. Request (within 5 business days) for the rater to provide his/her details, opinion, and any other information related to the reported violation⁶.
- iv. Confirmation that CHEERS will objectively review all of the information provided.
- v. If necessary, request a date for an in person meeting or conference call with CHEERS and the applicable rater(s).

⁶ If a Rater fails to respond to CHEERS within the desired due date, CHEERS will make another attempt to contact the Rater via email and phone within 3 business days after the Raters initial response due date. If the Rater does not respond to the 2nd communication from CHEERS, a final attempt will be made informing the Rater that he/she has 1 final opportunity to respond to CHEERS or be subject to further disciplinary action, up to and including decertification, from CHEERS.

3. **Rater Meeting / Conference Call (If Needed)**

5 business days prior to this meeting, CHEERS will provide a detailed agenda of what will be reviewed and what will be expected of the rater(s) in the meeting to allow the rater(s) to adequately prepare for the meeting.

Note: *the meeting/call can be scheduled sooner if mutually agreed upon by both CHEERS and the Rater.*

4. **Resolution Paths**

Based on the results of CHEERS' investigation of the matter, one or more of the following resolution paths could occur:

- i. Matter resolved – No further action required.
- ii. Further investigation required by CHEERS.
- iii. Rater is required to obtain additional training and/or recertification.
- iv. Rater placed on probationary status (up to 12 months) and subject to additional QA monitoring at the discretion of CHEERS QA personnel.
- v. Rater is temporarily suspended and precluded from conducting ratings and entering rating results in the CHEERS database.
- vi. Increase the QAI percentage on future rater work on both tested homes to 2% or greater. Percentage and duration are set at the discretion of CHEERS QA personnel.
- vii. Permanent Rater Decertification.

Note:

The CEC will be notified by CHEERS of all reported or discovered violations, the actions taken by CHEERS to address the violation, and the subsequent resolution to the matter.

QA Forms

QA Reviewers will use blank copies of 2013 CF3Rs as QA field documentation.

Completing QA Assignment

a. **QA form upload into Internal QA Workflow Tracker**

1. After QA reviewers complete assigned QA inspections, they will access the applicable QA Inspection entry in the Internal QA Workflow Tracker they had created during scheduling.
2. QA reviewers will update necessary fields and then attach the associated QA forms and results to the applicable QA inspection entry in the tracker.
3. Once the updates are complete, the forms are attached, and results entered, they will change the status of it to "Supervisor Review".

b. Manager Review

1. The QA Manager will review all applicable QA Inspection entries in the tracker in a “Supervisor Review” status every Monday.
2. The QA Manager will enter the QA results for each applicable entry into the secured side of the CHEERS registry using the “QA Maintenance” tool, under the “Administration” tab.
3. The CHEERS registry will automatically update its overall QA data.
4. Once all results are entered, the QA Manager will change the corresponding QA Inspection entry status in the tracker to “Complete”.

c. Notification to Raters

1. In the event of a QA failure, notification procedures will follow as described in the procedure section of the Corrective Action Process (CAP)
2. In the event of a QA pass, notification in writing will be provided to the raters informing them where and when the QA was conducted and the measures that were reviewed.
3. The rater notifications are designed to:
 - i. Inform Raters of their own QA results
 - ii. Congratulate them on a job well done or identify areas of improvement
 - iii. Provide them with an official record of QA being conducted
 - iv. Build pride and confidence in our organization
4. A rater will always have the right to inquire about QA results (pass or fail) regarding their own inspections to CHEERS.

APPENDIX A

QA Workflow

APPENDIX B

Corrective Action Process Level 1

APPENDIX C

Corrective Action Process Level 2