



# CHEERS

**Southern Nevada Green Building Partnership (SNGBP)  
"Quality Assurance Program"**

"What is measured improves." - Peter F. Drucker

Alex Vantaggiato, CHEERS QA Manager  
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# QUALITY ASSURANCE PROGRAM

## INTRODUCTION

1. This document outlines the CHEERS Quality Assurance Program (QAP) for the Southern Nevada Green Building Partnership (SNGBP) program, hereinafter referred to as the “CHEERS QAP.” CHEERS QAP consists of the following elements:
  - a. Quality Assurance Inspections (QAI)
  - b. CHEERS Corrective Action Process (CAP)
  - c. CHEERS Complaint Response System (CRS)
2. The CHEERS QAI program provides details on how CHEERS manages the inspection documentation and field review for CHEERS certified Raters participating in the SNGBP program.
3. The CHEERS CAP program provides further clarification on how Raters are evaluated when further review is required of a Rater’s work.
4. Finally, the CRS program summarizes how CHEERS effectively manages all inquiries and complaints that are conveyed to CHEERS.

## DEFINITIONS

1. **Annual QAI** - The 12 month calendar starting on January 1<sup>st</sup> and ending on December 31<sup>st</sup>. CHEERS will evaluate and conduct all QAI volume requirements based on the aforementioned 12 month calendar cycle.
2. **Rater Probationary Status** - 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.
3. **Rater Suspension** - 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.
4. **Rater Decertification** - 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.
5. **SNHBA** – Southern Nevada Home Builders Association
6. **QAI** - Quality Assurance Inspection
7. **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.

8. **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

The CHEERS QAP is designed to provide impartial and effective quality assurance to projects participating in the SNGBP Program and places a high priority on Quality Assurance. 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.

### 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 program requirements.
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 program requirements.

### Conflict of Interest Guidelines

CHEERS certified raters must be *independent entities*<sup>1</sup>.

### CHEERS QA Staff

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 QAP.

### General QAP Guidelines

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

1. Homes chosen for CHEERS QA evaluations are randomly selected by CHEERS.
2. At a minimum, QA percentage thresholds are met by rounding up to the nearest whole number for each lot tested by a Rater.
3. Raters are not informed that a building/installation will be field checked until after they have completed the original rating and all rating paperwork has been submitted.
4. All QA evaluations conducted by CHEERS QA personnel are documented in the CHEERS database; including QA testing results and summarized/submitted to the SNHBA biannually.
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.

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<sup>1</sup> *Independent Entity* means that a rater or rating company cannot have financial interest in any of energy efficiency improvements that they field verified or diagnostically test for qualification in the SNGBP Program.

# CHEERS QA INSPECTIONS (QAI) OVERVIEW

## Initial Review

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.

## Tested Homes: Annual QAI Requirements (1%)

At a minimum, annually evaluate the greater of 1 rating **or** 1% of the Rater's past 12 months total number of ratings (rounded up).

## Sampled Homes: Annual QAI Requirements (1%)

For houses or installations passed as part of a sample group, but not field verified by a Rater, CHEERS QA personnel will evaluate, at a minimum, the greater of 1 house or 1% (rounded up) of a Rater's annual sampled houses.

**Note:**

*CHEERS reserves the right to increase the initial 5 home documentation review and/or the annual QAI minimum 1% requirement for tested and sampled homes.*

## QAI PROCEDURES

### QA Status Reporting

1. All QA requirements will be recorded and tracked in the Registry. Personnel with Administrative privileges will be able to log in and review the QA Report. This report will track the following for each rater:
  - a. Percentage of QA required (1% or greater)
  - b. Number of lots tested vs. sampled
  - c. Number of lots that have been QA'd
  - d. Current QA percentage complete
  - e. Last QA date
  - f. Total number of lots required to be QA'd
2. Every Monday the QA Manager will generate the CHEERS QA report in order to monitor current QA workloads and assign the QAs to the appropriate CHEERS QA personnel.
3. Once assigned, the QA will be directly handled by the QA Reviewer while progress still is monitored by the QA Manager.

### SharePoint QA Entry

1. The QA Tracker can be found at the following link:

<http://consolhg/sites/cheersinternal/Lists/Rater%20QA%20Tracker/By%20QA%20Reviewer.aspx>

2. The QA manager will assign QA inspections to the appropriate rater via the QA SharePoint tracker. This custom made tracker will outline the following:
  - a. QA status
  - b. QA Type (file review or inspection)
  - c. Testing Stage (Initial Stage or Re-test)
  - d. Rater Name
  - e. Builder/ Project name (If applicable)
  - f. Lot address
  - g. Scheduling notes in regard to the lot
  - h. Assigned QA Reviewer
  - i. QA Date & Time
  - j. QA Percentage Level (1%, 2%, etc.)
  - k. Lot Tested or Sampled
  - l. Measures Inspected
  - m. Measures Failed
  - n. QA results
  - o. Failure Class (type 1 or 2)
  - p. Failure actions
  - q. QA Reviewer comments
  - r. QA results notification Sent to Rater (yes or no)
  - s. Notification Notes
  - t. QA form upload status
  - u. Database entry Complete (yes or no)
3. The basic lot information will be entered and 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.
4. The QA reviewers will check their assignments daily in order to schedule appropriately. Alerts will be setup in SharePoint to notify the QA reviewers that additional assignments were entered.

## QA Scheduling

1. The QA scheduling will be directly handled by the QA Reviewer. Upon receipt of assignments from the SharePoint Tracker, calls will be placed to builders in the effort to schedule the QA inspections appropriately.

2. Initial contact will need to be initiated within 24 hours of assignment in order to maximize scheduling success.
3. Contact will be initiated by any and all available means (i.e., phone, email, etc.,) and any contact attempt or made will be logged in the QA Tracker under the “Scheduling Notes” section.
4. The scheduling notes will use the same format as Customer Service Support notes:

*01.20.2014\_AV*

*Builder returned phone call. QA scheduled for 01.24.2014 at 9:00AM.*

*01.17.2014\_AV*

*No reply in regards to initial voicemail and email. I left a second voicemail and email to schedule QA inspection.*

*01.15.2014\_AV*

*Called builder and sent email to schedule QA inspection.*

5. Once scheduling is complete, the QA status in the tracker will be changed to “Scheduled.”
6. 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.

## **QA Preparation**

1. Prior to going on site to conduct the QA inspection, QA Reviewers will need to verify the following:
  - a. All required equipment is available
  - b. The correct QA forms have been downloaded and printed out
  - c. Original test results were reviewed
  - d. Climate conditions are acceptable
  - e. The builder is still available for the scheduled appointment

## **QA Inspections**

All QA assignments will be handled using the same general procedural workflow (Appendix A)

### **QAI – Pass Protocols**

1. CHEERS QA Reviewers will examine field verified tests and diagnostic tests will be re-conducted by the CHEERS QA personnel to verify all of the Raters results.
2. Within 48 hours, the CHEERS and SharePoint databases will be updated with the passing QA results.
3. 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.

### QAI – Failure protocols on Initial 1%

1. If a Rater’s work does not pass the 1% QAI, a second QAI of 1 additional rating by the same rater within the last 12 months will be evaluated by CHEERS QA personnel.
2. If a failure is found in the second additional rating evaluated, then CHEERS will engage with the Rater and installing contractor (if applicable) to work to resolve the issue.
3. Resolution Steps:
  - a. Failure Resolved – If the failure is resolved to the satisfaction of CHEERS QA personnel, and he/she warrants that no additional action is required, the lot(s) will be passed and the CHEERS Registry updated with notations of the initial failure and resolution steps taken. Despite the immediate failure resolution, the CHEERS QA Reviewer will have the right, at his/her discretion, to perform additional QA on the Rater or project.
  - b. Failure Not Resolved – If CHEERS is unable to successfully resolve the initial QAI failure, the CHEERS’ **Corrective Action Process** will apply. 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).

#### **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.*

## 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.

### QA Failures Not Resolved During QAI Review

If the CHEERS QA Reviewer is unable to resolve a QA failure during the 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:
  - a. Explain the specific findings and QAI failures to the Rater.
  - b. 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:

### Class 1 QAI Failure

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 may be placed on a probationary status or temporarily suspended.
2. The Rater may 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. The Rater, Rating Company, builder, and SNHBA will be notified of the aforementioned actions and ensuing resolution. If the program status is adversely impacted by a Class 1 failure, then the CHEERS QA Reviewer will follow the **Program Suspension Guidelines** documented below.

## Class 2 QAI Failures

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 didn't meet prescribed standards. In the event that this initial determination is made by CHEERS, the QAI failure will be classified as a potential violation of the CHEERS Rater Agreement.

### 1. 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:

### 2. Data Collection / Fact Finding

- a. 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.
- b. Contact any outside parties necessary to obtain or validate information pertaining to the reported violation.

### 3. Rater Notification

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

- a. Date the violation was reported (or discovered) by CHEERS.
- b. Details of the reported violation.
- c. Request (within 5 business days) for the rater to provide his/her details, opinion, and any other information related to the reported violation<sup>2</sup>.
- d. Confirmation that CHEERS will objectively review all of the information provided.
- e. If necessary, request a date for an in person meeting or conference call with CHEERS and the applicable rater(s).

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<sup>2</sup> 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 2<sup>nd</sup> 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.

#### 4. **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).*

#### 5. **Resolution Paths**

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

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

### **Program Suspension Guidelines**

If CHEERS is unable to resolve QA (Class 1 or 2) failures, and suspects that other lots previously constructed in the project may be impacted by similar failures, CHEERS will notify the SNHBA and the Home Builder of its findings. The project's SNGBP program status will be suspended until such time that CHEERS, the Builder, and additional stakeholders can resolve the matter to the satisfaction of SNHBA.

### **QA FORMS**

All QA forms will be found at the following link:

<http://consolhq/sites/registry/Shared%20Documents/Forms/AllItems.aspx?RootFolder=%2fsites%2fregistry%2fShared%20Documents%2fNEW%20CHEERS%2fQuality%20Assurance%2fQA%20Forms&View=%7b0D5C82FC%2dEE19%2d47F3%2dA4AF%2dCDCFB8115116%7d>

#### 1. **Form Types**

- a. QA Form
- b. QA Supplemental Forms

## 2. QA Form

The form will be filled out with the following guidance:

- a. Section I- Administrative Information; this section will be filled out in its entirety
- b. Section II- Test Information; this section will outline two items:
  - Original HERS Tests: all measures that were originally associated with the lot in question by the HERS rater
  - QA audit measures: all measures being tested by the QA reviewer
- c. Section III- Test Results; this section will outline two items for every QA reviewed measure:
  - Original HERS Test: results documented in the registry by the HERS Rater being QA'd
  - QA Audit Results: results obtained by the QA reviewer

**Note:** when QA is being conducted for the measure outlined below, only the appropriate checkbox will be marked on the QA Form

## 3. QA Supplemental Forms

- a. These forms will be filled out by the QA reviewer only when the following measures are being QA'd:
  - QII
  - Refrigerant Charge
  - Maximum Rater Total Cooling Capacity
  - Low Leakage Air Handler
  - Supply Duct Location Compliance Credit
- b. The forms will be filled out with the same guidance as similar credits in the California Energy Code (Title 24, Part 6) compliance forms. This guidance can be found in the CEC's Certificates of Field Verification and Diagnostic Testing (2013 Residential Compliance Manual; publication number: CEC-400-2013-001-CMF-REV).

**Note:** upon completion, all forms will be signed and dated by the QA reviewer

## COMPLETING QA ASSIGNMENTS (Interim Procedure until Database integration)

### QA form upload

1. All previously mentioned QA Forms will be scanned into PDF format and stored in the appropriate folder located at the following link:

## [I:\Administration\QA](#)

QA Forms will also be emailed to IT Manager Rod Tamayo for upload into the registry. In the future the registry will allow QA Inspectors to upload the QA forms directly into the system

2. All files will be labeled using the following format:

*Last name.First Initial.QA Date(MM.DD.YY).Form Type*

*Smith.J.2.4.13.QAF*

*Smith.J.2.4.13.QASF21(22,25,27,28,29)*

## Update of SharePoint system

1. The SharePoint QA assignment entry will be updated with notes using the format explained in the procedure section of the QAP
2. The QA assignment status will be changed depending on the QA results and future actions to be taken

## Notification to Raters

### Initial Pass/ Fail Notification Procedures

1. Pass notifications will be sent by the QA Assistant Manager within 24 business hours of QA being completed
  - a. Notification will be sent via email, using approved Pass Notification Template.
  - b. Email notifications will include Delivery and Read Receipts
  - c. Email will include the QA Designee, the QA Manager, the Rater, and the Rater Company (if applicable.)
  - d. QA Assistant Manager saves the notification he sent and applicable receipts to the "Correspondence" folder of the applicable Rater;
2. Fail notifications will be sent by the QA Assistant Manager within 24 business hours of QA being completed
  - a. Notification will be sent via email, using approved Fail Notification Template.
  - b. Email notifications will include Delivery and Read Receipts
  - c. Email will include the QA Designee, the QA Manager, the Rater, and the Rater Company (if applicable.)
  - d. QA Assistant Manager saves the notification he sent and applicable receipts to the "Correspondence" folder of the applicable Rater;
  - e. Rater notifies CHEERS of the next lot scheduled after notification, containing the same failed measure;
    - i. Lot will not count toward QA numbers, but will give an indication that notification was effective and Rater is aware of the problem and how to fix it.
  - f. Second failure notification will use the same process as the initial failure;
  - g. Third failure notification will be forwarded to, and handled, by the Quality Assurance manager.