

*Certified Program:*



*Training managed by:*



## **HERS Residential Alterations (T24)**

Class Code: 160223HN

Location: The Building Performance Center  
1301 Bidwell Street, Folsom, CA 95630

Class Date: Tuesday, February 23<sup>rd</sup>, 2016

Class Time: 8:00 am-5:00 pm

Cost: \$325 per person\*

You can sign up for the class on-line and pay via credit card at:  
[www.calcerts.com](http://www.calcerts.com) or call 916.985.3400 x2013

**All candidates must schedule and pass a Compliance Field House Exam within 6 months of passing the HERS training course written exam. Failure to schedule or pass the Compliance Field House Exam within the set time frame shall require the candidate to re-take, at their own cost, the training course and written exam before scheduling the Compliance Field House exam – See official policy below.** This house must be representative of a typical alteration to an existing home and be performed under the supervision of a CalCERTS proctor. There is an additional \$315.00 fee for this exam, which is not included in Class III: Residential Alterations.

**Candidates must complete a Compliance Field House Exam before any individual HERS Rater credential can be issued.** The same Field House exam can also be used and combined with the Field House required for Newly Constructed Homes.

\*There is an annual \$120.00 subscription fee due if you choose to become a CalCERTS California HERS Field Verification & Diagnostic Testing Rater. This fee covers your CalCERTS HERS membership and the administrative duties on our part to maintain your records. Project uploads for compliance verifications, whole-house ratings, and/or Energy Star certifications are also subject to additional fees. **Prices subject to change without notice**

*Target Market for this Course:*

**HERS Residential Alterations** is a course that will teach the field verification and diagnostic testing requirements of Title 24, Part 6, Building Energy Efficiency Standards as they apply to Alterations to Existing Residences. This course will provide the students with various scenarios and explain how to identify the HERS tests to be performed for each unique scenario. This course will explain when a HERS verification is required, based on the work completed, what HERS tests will be required and how to calculate the HERS testing targets for each HERS test.

### ***Incoming Skills Necessary:***

To better prepare candidates for work in the HERS industry we strongly suggest that those who enter possess some knowledge, skills, and abilities in the California HERS Program (HERS Basics) and the construction industry. An understanding of the diagnostic tests required of a HERS Rater is also expected.

In the course of your rater work you may also be required to have the following knowledge, skills, and abilities required which are not taught in any CalCERTS trainings:

- High School diploma or GED
- 10<sup>th</sup> Grade English & Math minimal (especially fractions, percentages, geometry)
- Computer literacy
- Firm grasp of the English language (most codes and regulations are only in English)
- Ability to lift heavy objects (50 lbs. or more)
- Ability to inspect dark, tight, spaces

**Prerequisites:** HERS Basics

**Course Duration:** 8 clock hours

### **Learning Objectives:**

- Identify the Field Verification and Diagnostic Testing requirements of Title 24, Part 6, Building Energy Efficiency Standards.
- Demonstrate how to identify the HERS tests to perform.
- Demonstrate how to identify the testing targets for each required HERS test.
- Demonstrate how to identify the HERS testing targets for each HERS test.
- Explain the protocols and procedures defined in the Reference Appendices RA2 and RA3.

### **Learning Outcomes:**

At the end of this course, students will be able to:

- Identify the HERS Title 24 Compliance Forms that are used for the collection of HERS testing data.
- Recognize the additions, alterations and repair work that will require HERS verification.
- Recognize and identify the 16 climate zones defined by Title 24 Compliance.
- Explain the difference between prescriptive and performance targets for HERS tests.
- Identify the prescriptive targets for new space conditioning system and ducts.
- Identify the prescriptive targets for new duct systems.
- Identify the prescriptive targets for altered duct systems.
- Identify the prescriptive targets for altered refrigerant containing components.
- Successfully calculate test target values based on equipment size and measured performance.
- Identify the exceptions to the HERS Field Verification and Diagnostic Testing requirements.

### **Topics Covered in This Class:**

- Title 20 – California HERS Regulations
- Title 24 – Compliance Process
- Title 20 – HERS Regulations Title 24 Compliance Process
- Title 24 – Part 6 – Building Energy Efficiency Standards
- When is a HERS Field Verification and Diagnostic Testing is required?
- Title 24 – HERS Verification Summary – Residential Alterations

- Sampling Procedures for Residential Alterations
- Title 24 Compliance Forms used for Residential Alterations

**How skills are measured:** Standardized exam at the conclusion of the course and during the HERS Residential Alterations Field House Exam.

***Standards of Candidate Evaluation (for individual certificate issuance):***

At the end of HERS Residential Alterations training day, all participants will take an open-book, multiple-choice written exam based upon; all the written materials provided to the candidate, the presentations in class, and the verbal education by the Trainer(s) within the classroom and the lab (if applicable).

***CalCERTS HERS Rater Written Exam Policies***

These rules are intended to ensure fairness, accuracy, consistency and validity of exam results. Failure to abide by these rules could result in ejection, or other disciplinary action.

1. At the beginning of each exam, the proctor will announce the time allowed for the exam. The time allowed is based on the number of questions on the exam.
2. The written exam must be taken on the day of instruction (or on the last day of a multiple day delivery), no exceptions.
3. A Scantron form, exam packet and #2 pencil will be provided to the candidate.
4. Fill in (shade) your answers firmly and neatly on the Scantron form. Completely erase any changed answers with a soft eraser. Do NOT staple, fold, tear or crumple the form. Do NOT draw or write on the bar code black lines on the left hand side of the exam. Do NOT write on or in the exam packet.
5. Print your first and last name where indicated on the Scantron form.
6. Print exam version (located on front page of exam packet) in the area above your name.
7. Print the name of the class (i.e. Class I, Class II, etc.) on the “subject” line of Scantron form.
8. Print the date you are taking the exam where indicated on the Scantron form.
9. A score of 80% is required to pass the CalCERTS written exam.
10. Candidates will not be informed which questions they have missed. They will only be informed of their score and whether they passed or failed.
11. Candidates must be prepared to show a valid Photo ID.
12. No cell phones may be used during the exam. Calculators will be provided.
13. No laptop computers may be used during the written exam.
14. The CalCERTS training manuals are the only written materials that may be referenced during the written exam. No other books or notes may be used. The answer to every question may be found or deduced from information in the training manuals. No other materials are needed to pass the exam.
15. Candidates may leave the room during the exam, but must hand over exam packet to Proctor until their return. No time will be added to time allotment for exiting exam.
16. Candidates may NOT write in training manual or exam booklet during exam. Scratch paper will be provided.
17. This is a professional level exam. **THERE IS NO TALKING OR COMMUNICATING ALLOWED DURING THE EXAM.** You must demonstrate your knowledge of the subject matter without assistance. You may NOT assist others during the exam.
18. There are multiple versions of each exam. They are similar to each other in terms of the topics covered and types of questions. Candidates will take a different version than those sitting to either side of them.
19. ALL exam packets must be turned in to the Proctor at the end of the exam.

***Written Exam Re-test Policies***

1. Candidates will be given three opportunities to pass each written exam (the initial attempt plus two re-test attempts).
2. Candidates must wait at least 48 hours to re-take any exam.

3. There will be an additional \$75.00 charge for a re-test attempt.
4. All of the above exam policies apply to a re-test as well (except item #2 above)
5. Candidates who do not pass an exam on their third attempt must retake the entire class, at full retail price, and pass the written exam if they wish to continue their pursuit of certification.
6. If a candidate does not pass the written exam after retaking the course, they will be excluded from becoming a CalCERTS HERS Rater for that classification indefinitely (i.e. New Construction Rater).

### ***Compliance Field House Exam Policy***

1. Candidates must schedule and pass the Compliance Field House practical exam within six months of completing all course work required for certification as an Alterations rater (Classes I, II & III). Six months will start with the attendance date of the final class regardless of whether all written exams associated with those courses were passed.
2. Any written exam re-tests from the associated course work must be completed before attending the field house and within the same six month window. Candidates who fail to pass written exam re-tests shall be required to re-take the associated class at full cost. If during this period the six month window expires for the field house, the candidate will also be required to re-take Class II - Hands-On Lab, at full cost and will then have another 6 month window to pass the Compliance Field House.
3. If a candidate fails their first attempt at the Compliance Field House, then the one allowed re-test of the field house must be completed within the original six month window. Candidates who fail to pass the Compliance Field House within six months, or who exhaust their re-test eligibility, shall be required to re-take Class II - Hands-On Lab, at full cost and will then have another 6 month window to pass the Compliance Field House.

### ***Materials utilized in this Course:***

Each participant will be given a Candidate Binder with all the applicable written course materials as described in the Course Outline above. Any required diagnostic testing equipment and associated sundries will be provided by CalCERTS, Inc. Candidates are welcome to bring their own equipment if they'd like (may not be appropriate for all classes).

Candidates shall bring to class a pencil or pen, a calculator, and notepad.

### ***Students Right to Cancel or Withdraw:***

Students have the right to cancel or withdraw and obtain a refund of charges paid through attendance at the first class session, or the seventh day after enrollment, whichever is later. Cancellation or Withdrawal notices must be submitted in writing by email to the Training Manager at [training@calcerts.com](mailto:training@calcerts.com). For more information, contact the Training Manager at (916) 985-3400 x2015.

The institution shall refund 100 % of the amount paid, less a non-refundable registration fee, if notice of cancellation is made through attendance at the first class session or by the seventh day after the enrollment, whichever is later. The refund policy for students who have completed less than 60 % of the course of instruction shall be due a pro rata refund. In this example below, the student has paid for the entire Instruction. The student attends 8 hours of 16 hours instruction and decides to withdraw.

We reserve the right to cancel classes for any reason. Every effort will be made to notify you of a cancelled class well in advance. If we cancel a class you will receive a full refund of the class fee, but we are not responsible for other costs (travel, hotel deposit, etc.).

*For questions about any of our training or if you require any special assistance or accommodation during training or testing, please contact 916-985-3400x2013 or email [training@calcerts.com](mailto:training@calcerts.com).*

## CalCERTS Corporate Hotel Rates

Hotel	Comments	Distance to Building Performance Center Inc.*	Notes	Corporate Discount	Phone/Website
<b>Lake Natoma Inn 702 Gold Lake Dr. Folsom, CA 95630</b>	In Historical downtown	5 min away	Walking distance to restaurants, Business Center	CalCERTS Corp Rate \$109	916/365-9149 <a href="http://www.lakenatomainn.com">www.lakenatomainn.com</a>
<b>Larkspur Landing 121 Iron Point Rd. Folsom, CA 96830</b>	Studio Suite	5 - 10 min away	Continental breakfast, Business Center, Free internet	CalCERTS Corp Rate \$95	916/651-1616 <a href="http://www.larkspurhotels.com">www.larkspurhotels.com</a>
<b>Hilton Garden Inn 221 Iron Point Rd. Folsom, CA 95630</b>	Double/King	5 - 10 min away	Free Internet, Business Center	CalCERTS Corp Rate \$129	916/353-1717 <a href="http://www.hiltongardeninn.com/folsom">www.hiltongardeninn.com/folsom</a>
<b>Hampton Inn 155 Placerville Rd. Folsom, CA 95630</b>	King Sofa/ 2 Queens or King Studio	10 - 15 min away	Breakfast, Shuttle Service, Free internet	CalCERTS Corp Rate \$102 (King with Sofa Sleeper / 2 Queens) \$112 (King Studio Suite)	916/235-7744 <a href="http://www.folsomsuites.hamptoninn.com">www.folsomsuites.hamptoninn.com</a>

\*Folsom, CA CalCERTS Trainings are held at: The Building Performance Center Inc., 1301 Bidwell Street, Folsom, CA 95630