



## MINHERS Addendum 54

### Revision of Chapter 9 HVAC System Installation Grading Quality Assurance

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<b>Date Approved:</b>	March 31, 2022
<b>Voluntary Compliance Date:</b>	May 1, 2022
<b>Mandatory Compliance Date:</b>	July 1, 2022
<b>Transition Period:</b>	VCD to MCD
<b>Proponent:</b>	SDC 200
<b>Organization:</b>	RESNET

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#### **Purpose:**

Addendum 54 Revises Chapter 9 of the MINHERS to institute quality assurance requirements necessary for implementation of Standard ANSI/RESNET/ACCA/ICC 310-2020, Standard for Grading the Installation of HVAC Systems.

#### **Amendment:**

### **Addendum 54, HVAC System Installation Grading QA**

*Revise Sections of the MINHERs Chapter 9 as shown below by underline/strikeout*

904.3.2.4 The QA File review completed by a Quality Assurance Designee shall consist of, at a minimum, the following:

904.3.2.4.1 Ratings shall be selected using a nonbiased selection process from the entire pool of ratings available at the time of the review for each HERS Rater. It may be

necessary to first select ratings that represent any particular area of concern in either the rating or construction process. Once it is ensured that ratings from these areas of interest will be included in the quality assurance process, a nonbiased selection process can then be applied such as random selection. If ratings exist in the pool of available ratings which represent a RESNET supported credential beyond HERS Rater certification, such as ENERGY STAR or ANSI/RESNET/ACCA Standard 310 Inspections, a minimum of one rating representative of each supported certification shall also be included.<sup>1</sup> Special effort should be taken to make certain that the selected ratings are as representative as possible of the ratings being completed, i.e. new and existing homes, geographic location, builder, trade contractor, variety of floor plans, etc., which, in some instances, may require more than the minimum (1) rating or ten percent (10%).

904.3.2.4.2 While Section 102.1.4.11 and 303.3.7 require that HERS Raters submit energy simulation files for every rated home to their Providers, the QA file review does not require that Raters submit quality assurance data files, as defined in Appendix B, to their Provider and/or Quality Assurance Designee for every home that is rated. Only quality assurance data files for the ratings selected for quality assurance shall be required to be submitted for review by the Provider's Quality Assurance Designee.

904.3.2.4.3 For each Confirmed Rating, confirm that the values entered into the HERS Rating Software for all Minimum Rated Features are supported by actual on-site field-verified test data;

904.3.2.4.3.1 At minimum, the Rating Provider shall collect, review, and maintain (for a period of 3 years) the following supporting documentation for each file QA:

Date and time of the inspection/test

The name of the Certified Rater or RFI conducting the inspection/test

Plans (or alternative documentation showing building dimensions)

~~EEP Verification Checklist~~

RESNET Home Energy Rating Standard Disclosure

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<sup>1</sup> (Informative Note ) The pool is based per rater. If the rater does not require QA for the current quarter, then no additional QA is required.

Photos of the following building features where applicable to the rated Dwelling Unit. Where photos lack sufficient detail<sup>2 ±</sup>, the Quality Assurance Designee shall require additional supporting documentation.

- a. Building assemblies as required by ANSI/RESNET 301 Appendix B Inspection Procedures for Minimum Rated Features.
- b. All heating, cooling, and service hot water equipment including nameplate/model number
- c. Dwelling Unit Mechanical Ventilation System including nameplate/model number and controls
- d. Infiltration test result or automated test report
- e. Duct leakage test result(s) for each system
- f. Dwelling Unit Mechanical Ventilation System test result(s) for each system
- g. The building's front, back, right, left elevations
- h. Appliances (refrigerator, dishwasher, washer, dryer) including nameplate/model number

For File QA on a rating that includes an additional RESNET supported credential, collect, review, and maintain supporting documentation required by the RESNET-supported credential. This may include, but is not limited to the following:

EEP or Program Verification Forms/Checklists

Photographs of test results or automated test reports for program required verification tests.

#### 904.3.3.2 Requirements for QA Field reviews.

904.3.3.2.1 HERS Raters. The QA Field review shall confirm the accuracy of all stages of the rating process (e.g. data collection, reporting, and energy simulation file creation and/or updating) for the rating receiving a QA Field review.

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<sup>2 ±</sup>(Informative Note) For example, where equipment is located in narrow utility closets that prohibit clear photo of nameplate/model number, or when the building feature required is not present at the time of inspection.

904.3.3.2.1.1 Collect dimensional measurements in the field for the home to evaluate the accuracy of those determined by the HERS Rater in the field or from plans, including conformance to the requirements set forth in Chapters 3 and 8 and Appendix A of these Standards.

904.3.3.2.1.2 Complete in the field all necessary performance testing and all necessary inspections of minimum rated features for the home to evaluate the accuracy of those determined by the HERS Rater, including conformance to the requirements set forth in Chapters 3 and 8 and Appendix A of these Standards. As applicable<sup>3</sup>, complete all necessary performance testing and inspections as required by RESNET supported credentials beyond HERS Rater certification, such as ENERGY STAR or ANSI/RESNET/ACCA Standard 310 Inspections.

For File QA on a rating that includes an additional RESNET supported credential, collect, review, and maintain supporting documentation required by the RESNET-supported credential. This may include, but is not limited to the following:

EEP or Program Verification Forms/Checklists

Photographs of test results or automated test reports for program required verification tests.

904.3.3.2.1.3 Evaluate inputs entered by the HERS Rater into the energy simulation file for the rated home to determine conformance with data from 904.3.3.2.1.1 and 904.3.3.2.1.2 as well as Chapters 3 and 8 and Appendix A of these Standards.

904.3.3.2.2 Rating Field Inspectors. The QA Field review shall confirm the accuracy of data collection and reporting by the RFI for the rating receiving a QA Field review.

904.3.3.2.2.1 As necessary, collect dimensional measurements in the field for the home to evaluate the accuracy of those that may have been determined by the RFI, including conformance to the requirements set forth in Chapter 8 and Appendix A of these Standards.

904.3.3.2.2.2 Complete in the field all necessary performance testing and all necessary inspections of minimum rated features for the home to evaluate the accuracy of those that may have been determined by the RFI, including conformance to the requirements set forth in Chapter 8 and Appendix A of these Standards. As applicable<sup>3</sup>, complete all necessary performance testing and inspections as required by RESNET supported credentials beyond HERS Rater

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<sup>3</sup> (Informative Note) The features to be reviewed/performed during the QA visit are only required to be those that were originally performed as part of the rating.

certification, such as ENERGY STAR or ANSI/RESNET/ACCA Standard 310 Inspections.

904.3.3.2.3 Pre-drywall. For homes receiving a QA Field review prior to the installation of drywall, the QA shall complete in the field all necessary performance testing and all necessary inspections of minimum rated features for the home to evaluate the accuracy of those determined by the HERS Rater or RFI, including conformance to the requirements set forth in Chapter 8 and Appendix A of these Standards.

904.3.3.2.4 Each rating selected for a QA Field review for each HERS Rater and RFI shall be randomly selected to ensure that a representative sample of all home types, locations and builders is achieved. If ratings exist in the pool of available ratings which represent RESNET supported credentials beyond HERS Rater certification, such as ENERGY STAR or ANSI/RESNET/ACCA Standard 310 Inspections, a minimum of one rating representative of each supported credential shall also be included.