



# Now in Effect: ENERGY STAR's Enhanced Inspection and Quality Control Protocols

January 27, 2025

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# Agenda

1. Refresher on QAQC enhancements.
2. What to know for 2025.
3. Stretch goals to prepare for the future.
4. Your 2025 to-do list.

# Acronym Cheat Sheet

**QAQC** = Quality Assurance / Quality Control

**SFNH** = ENERGY STAR Single-Family New Homes

**MFNC** = ENERGY STAR Multifamily New Construction

**Rev. 14/05** = Revision 14 of SFNH and Revision 05 of MFNC.

↳ Just released, available now, mandatory for homes and apartments permitted after 1/1/26.

**HCO** = EPA-recognized Home Certification Organization

↳ Such as RESNET; see [energystar.gov/hco](https://energystar.gov/hco) for full list.



# Trivia Question #1

A townhouse was permitted today (January 27, 2025) and is pursuing ENERGY STAR.

**Question:** Can it be inspected using sampling protocols?



# Trivia Question #1

**Answer: No**

Sampling is no longer allowed in the ENERGY STAR Single-Family New Homes (SFNH) program and for all townhouses, including those certified using the ENERGY STAR Multifamily New Construction (MFNC) program.

This change applies to single-family homes and townhouses permitted on or after January 1, 2025.



# Trivia Question #2

**Question:** Do RFIs need to take the ENERGY STAR Rater training if they are inspecting ENERGY STAR checklist items?



# Trivia Question #2

**Answer: Yes**

All individuals inspecting any measures on the Rater Field Checklist are required to successfully complete an EPA-recognized training course.

This applies to both Certified Raters and Rating Field Inspectors (RFIs).



# Trivia Question #3

**Question:** What is the difference between a “Confirmed” rating and a “Confirmed Threshold” rating?





# Trivia Question #3

## Answer:

**Confirmed Rating:** All verified Minimum Rated Features of the Rated Home shall be entered into the energy model file.

**Confirmed Threshold Rating:** A rating accomplished using Threshold Specifications to determine the Energy Rating Index.

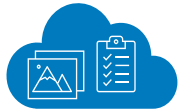
# Refresher on the “QAQC Enhancements”

- The inspection and certification workflow is being strengthened to safeguard the integrity of the ENERGY STAR program.
- In July 2024, enhancements to the program’s QAQC requirements were finalized in a revised “ENERGY STAR Certification System.”
- These enhancements are designed to make current activities more effective, take advantage of digital technology, and give HCOs new oversight tools.

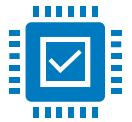
# Refresher on the “QAQC Enhancements”



**New Training Development** → For annual continuing education.



**Centralized Paperwork/Photo Upload** → Ensures complete documentation.



**Automated Validations** → Dummy-proofing.



**Accelerated Quality Control Reviews** → Find errors earlier and provide chance to fix.



**Quality Control Review by HCO (e.g. RESNET) staff** → Better consistency across energy rating companies.

# Refresher on the 'QAQC Enhancements'

- EPA set's high-level requirements, HCOs propose specific procedures and systems for their certification programs.
  - Implementation details may vary by HCO. This presentation is specific to RESNET's certification program. Learn more: [energystar.gov/hco](https://energystar.gov/hco)
- Implementation has begun:
  - Several elements are launching this year (2025).
  - Some items are tied to Rev. 14/05, which are available now and mandatory for homes and apartments permitted after 1/1/26.
  - Expect detailed guidance from RESNET as elements come fully online.
- The roll out of additional elements will continue in future year(s).



# What to know for 2025



# Before Inspection

## Rater Training and Credentials

The RESNET Registry is becoming the central repository of Rater/RFI ENERGY STAR training records and credentials.

- **Now:** Check Rater and RFI training records and schedule make-up training if necessary.
- **Soon:** When instructed by RESNET, review pre-populated Registry training records and submit documentation to fill any gaps.
- **Later:** Automated enforcement to begin by 2026.

## Before Inspection

# MFNC Credential for Raters/RFIs/QADs, Providers

A new credential is being introduced for individuals and organizations working on ENERGY STAR Multifamily New Construction (MFNC).

This builds on the pre-existing MFNC Rater training requirement, which will now also be required for QADs.

- **Now:** Ensure Raters/RFIs and, now, QADs have taken the MFNC Rater training if working on MFNC projects.
- **Soon:** When instructed by RESNET, enter training records into the RESNET Registry.
- **Later:** Automated listing and enforcement to begin by 2026.

[www.energystar.gov/mftraining](http://www.energystar.gov/mftraining)

Scott



# Before Inspection

## New Annual 1-Hour Training Module

A new 1-hour training video by EPA staff will be developed each year, to help Raters/RFIs and QADs stay aware of key program updates.

The module will be available via:

- The RESNET Conference (“ENERGY STAR: The Year Ahead”)
  - EPA’s Partner Meeting webinar series (forthcoming)
  - RESNET’s and other HCOs’ online training portals
- 
- **Now:** The training is optional but highly encouraged in 2025.
  - **Later:** To be determined.





# During Inspection Documentation and Checklist Collection

As a reminder, complete the ENERGY STAR Checklists and collect HVAC documentation for every home.

- **Now:** Ensure documentation/checklists are completed and immediately available upon request.
- **Later:** In future, systems will be introduced for digital upload of the checklists and documentation.

# During Inspection

## On-Site Photo Collection

Revision 14/05 introduces a list of photos that Raters are required to capture at each inspection, including:

- One geo-tagged and time-stamped Rater “selfie” per inspection (it is recommended, but not required, for other photos to be timestamped and geo-tagged).
- Overlap with ANSI / RESNET 301 and MINHERS photo lists.
  - For performance tests, one photo or automated report per test.
- Additional ENERGY STAR-specific checklist measures.
  - Capture at least one “representative” photo per specified item.

See applicable National Rater Field Checklist at [energystar.gov/newhomesrequirements](https://energystar.gov/newhomesrequirements)





# ENERGY STAR Single-Family New Homes

## National Rater Field Checklist, Version 3.1 / 3.2 / 3.3 (Rev. 14)

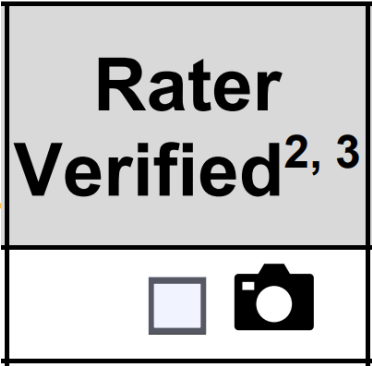
Home Address: _____	City: _____	State: _____	Permit Date: _____	
<b>Thermal Enclosure System</b>				
<b>1. High-Performance Insulation &amp; Fenestration</b>	<b>Must Correct</b>	<b>Builder Verified<sup>1</sup></b>	<b>Rater Verified<sup>2,3</sup></b>	<b>N/A<sup>4</sup></b>
1.1 Insulation meets specifications in National Rater Design Review Checklist Item 2.1.	<input type="checkbox"/>	Pre-rock+50 <input type="checkbox"/>	<input type="checkbox"/> <input checked="" type="checkbox"/>	-
1.2 All insulation achieves Grade I install, per ANSI / RESNET / ICC 301. Alternatives in Footnote 5, 5.6	<input type="checkbox"/>	Pre-rock+50 <input type="checkbox"/>	<input type="checkbox"/> <input checked="" type="checkbox"/>	-
1.3 Fenestration meets specifications in National Rater Design Review Checklist Items 2.1 & 2.2.	<input type="checkbox"/>	-	<input type="checkbox"/>	-
<b>2. Fully-Aligned Air Barriers<sup>7</sup></b> - At each insulated location below, a complete air barrier is provided that is fully aligned as follows: <b>Ceilings:</b> At interior or exterior horizontal surface of ceiling insulation in Climate Zones 1-3; at interior horizontal surface of ceiling insulation in Climate Zones 4-8. Also, at exterior vertical surface of ceiling insulation in all climate zones (e.g., using a wind baffle that extends to the full height of the insulation in every bay or a tabbed baffle in each bay with a soffit vent that prevents wind washing in adjacent bays). <sup>8,9</sup>				
2.1 Dropped ceilings / soffits below unconditioned attics, and all other ceilings.	<input type="checkbox"/>	≤ 50 sq. ft. <input type="checkbox"/>	<input type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>Walls:</b> At exterior vertical surface of wall insulation in all climate zones; also at interior vertical surface of wall insulation in Climate Zones 4-8. <sup>9,10</sup>				
2.2 Walls behind showers, tubs, staircases, and fireplaces.	<input type="checkbox"/>	≤ 50 sq. ft. <input type="checkbox"/>	<input type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/>
2.3 Attic knee walls and skylight shaft walls. <sup>11</sup>	<input type="checkbox"/>	≤ 50 sq. ft. <input type="checkbox"/>	<input type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/>
2.4 Walls adjoining porch roofs or garages.	<input type="checkbox"/>	≤ 50 sq. ft. <input type="checkbox"/>	<input type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/>
2.5 Double-walls and all other exterior walls.	<input type="checkbox"/>	≤ 50 sq. ft. <input type="checkbox"/>	<input type="checkbox"/>	-
<b>Floors:</b> At exterior vertical surface of floor insulation in all climate zones and, if over unconditioned space, also at interior horizontal surface including supports to ensure alignment. Alternatives in Footnotes 13 & 14. <sup>12,13,14</sup>				
2.6 Floors above garages, floors above unconditioned basements or crawlspaces, and cantilevered floors.	<input type="checkbox"/>	≤ 50 sq. ft. <input type="checkbox"/>	<input type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/>
2.7 All other floors adjoining unconditioned space (e.g., rim / band joists at exterior wall or at porch roof).	<input type="checkbox"/>	≤ 50 sq. ft. <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3. Reduced Thermal Bridging</b> – Reduced thermal bridging strategies are not mandatory. However, the following details must be accurately assessed per ANSI / RESNET / ICC 301. <sup>15</sup>				
3.1 Insulated ceilings assessed at the attic edge for variance in R-value and install quality.	<input type="checkbox"/>	-	<input type="checkbox"/>	<input type="checkbox"/>
3.2 Insulation assessed beneath attic platforms and walkways for variance in R-value and install quality.	<input type="checkbox"/>	-	<input type="checkbox"/>	<input type="checkbox"/>
3.3 Attic access panels, drop-down stairs, & whole-house fans assessed for insulated covers.	<input type="checkbox"/>	-	<input type="checkbox"/>	<input type="checkbox"/>
3.4 Above-grade walls separating conditioned from unconditioned space assessed for advanced framing.	<input type="checkbox"/>	-	<input type="checkbox"/>	<input type="checkbox"/>
3.5 Slabs on grade assessed for insulation where walls separate conditioned from unconditioned space.	<input type="checkbox"/>	-	<input type="checkbox"/>	<input type="checkbox"/>
<b>4. Air Sealing</b>				
4.1 Rater has verified each air sealing detail below. In addition, the home must meet Item 4.2. Unless otherwise noted below, "sealed" indicates the use of caulk, foam, or equivalent material.				
4.1.1 Ducts, flues, shafts, plumbing, piping, wiring, exhaust fans, & other penetrations to unconditioned space sealed, with blocking / flashing as needed.	<input type="checkbox"/>	≤ 5 penetrations <input type="checkbox"/>	<input type="checkbox"/>	-
4.1.2 Attic access panels, drop-down stairs, & whole house fans are gasketed (i.e., not caulked) or equipped with covers that are gasketed.	<input type="checkbox"/>	-	<input type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/>
4.1.3 Recessed lighting fixtures adjacent to unconditioned space are ICAT labeled and gasketed.	<input type="checkbox"/>	No Limit <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.1.4 Drywall is sealed to top plate during installation, or from the attic side, at all unconditioned attic / wall interfaces. Drywall adhesive (but not other construction adhesives) is permitted to be used.	<input type="checkbox"/>	No Limit <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.1.5 Rough opening around windows & exterior doors is sealed.	<input type="checkbox"/>	-	<input type="checkbox"/>	-
4.1.6 Walls that separate attached garages from occupiable space are sealed. In addition, an air barrier is installed and sealed at floor cavities aligned with these walls.	<input type="checkbox"/>	-	<input type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/>
4.1.7 Doors adjacent to unconditioned space (e.g., attics, garages, basements) or ambient conditions are made substantially air-tight with weatherstripping or equivalent gasket.	<input type="checkbox"/>	-	<input type="checkbox"/>	<input type="checkbox"/>
4.1.8 Above-grade sill plates adjacent to conditioned space sealed to foundation or sub-floor.	<input type="checkbox"/>	No Limit <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.1.9 In townhouses and duplexes, for fire-rated area separation walls, gap is sealed between the drywall common wall and the structural framing at all exterior boundaries.	<input type="checkbox"/>	No Limit <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.2 Rater-measured air leakage of Dwelling or Dwelling Unit meets one of the following: <sup>16</sup>				
4.2.1 For all Versions except those noted below: For National v3.2 and CA v3.4: ≤ 4.5 ACH50 For National v3.3 and CA v3.5: ≤ 4.0 ACH50 (see exception in Fn. 17) <sup>17</sup> For National v3.3 and CA v3.5: ≤ 3.5 ACH50 (see exception in Fn. 17) <sup>17</sup>	<input type="checkbox"/>	-	<input type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/>
4.2.2 As an alternative, for a Dwelling with ≤ 1,500 sq. ft. of Conditioned Floor Area, a Townhouse, or an attached Dwelling Unit, air leakage is ≤ 0.30 CFM50 per sq ft. of Dwelling Unit Compartmentalization Boundary area.	<input type="checkbox"/>	-	<input type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/>



ENERGY STAR Single-Family New Homes  
National Rater Field Checklist, Version 3.1 / 3.2 / 3.3 (Rev. 14)

Home Address: \_\_\_\_\_ City: \_\_\_\_\_ State: \_\_\_\_\_ Permit Date: \_\_\_\_\_

Thermal Enclosure System	Must Correct	Builder Verified <sup>1</sup>	Rater Verified <sup>2,3</sup>	N/A <sup>4</sup>
<b>1. High-Performance Insulation &amp; Fenestration</b>				
1.1 Insulation meets specifications in National Rater Design Review Checklist Item 2.1.	<input type="checkbox"/>	Pre-rock+50 <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.2 All insulation achieves Grade I install, per ANSI / RESNET / ICC 301. Alternatives in Footnote 5, 5.6	<input type="checkbox"/>	Pre-rock+50 <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.3 Fenestration meets specifications in National Rater Design Review Checklist Items 2.1 & 2.2.	<input type="checkbox"/>	-	<input type="checkbox"/>	<input type="checkbox"/>
<b>2. Fully-Aligned Air Barriers<sup>7</sup></b> - At each insulated location below, a complete air barrier is provided that is fully aligned as follows: Ceilings: At interior or exterior horizontal surface of ceiling insulation in Climate Zones 1-3; at interior horizontal surface of ceiling insulation in Climate Zones 4-8. Also, at exterior vertical surface of ceiling insulation in all climate zones (e.g., using a wind baffle that extends to the full height of the insulation in every bay or a tabbed baffle in each bay with a soffit vent that prevents wind washing in adjacent bays). <sup>8,9</sup>				
2.1 Dropped ceilings / soffits below unconditioned attics, and all other ceilings.	<input type="checkbox"/>	≤ 50 sq. ft. <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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<b>4. Air Sealing</b>				
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4.1.9 In townhouses and duplexes, for fire-rated area separation walls, gap is sealed between the drywall common wall and the structural framing at all exterior boundaries.	<input type="checkbox"/>	No Limit <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.2 Rater-measured air leakage of Dwelling or Dwelling Unit meets one of the following: <sup>16</sup>				
4.2.1 For all Versions except those noted below: For National v3.2 and CA v3.4: ≤ 4.5 ACH50 For National v3.3 and CA v3.5: ≤ 3.5 ACH50 (see exception in Fn. 17) <sup>17</sup>	<input type="checkbox"/>	-	<input type="checkbox"/>	<input type="checkbox"/>
4.2.2 As an alternative, for a Dwelling with ≤ 1,500 sq. ft. of Conditioned Floor Area, a Townhouse, or an attached Dwelling Unit, air leakage is ≤ 0.30 CFM50 per sq ft. of Dwelling Unit Compartmentalization Boundary area.	<input type="checkbox"/>	-	<input type="checkbox"/>	<input type="checkbox"/>



For each item with a camera icon, capture one representative photo of the strategy installed.



# ENERGY STAR Single-Family New Homes

## National Rater Field Checklist, Version 3.1 / 3.2 / 3.3 (Rev. 14)

HVAC System <sup>18</sup>			Must Correct	Rater Verified <sup>2,3</sup>	N/A <sup>4</sup>
<b>5. Heating &amp; Cooling Equipment</b> - Complete Track A - HVAC Grading <sup>19</sup> or Track B - HVAC Credential <sup>20</sup>					
Track A	5a.1 Blower fan volumetric airflow is Grade I or II per ANSI / RESNET / ACCA / ICC 310.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	5a.2 Blower fan watt draw is Grade I or II per ANSI / RESNET / ACCA / ICC 310.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	5a.3 Refrigerant charge is Grade I per ANSI / RESNET / ACCA / ICC 310. See Footnote 21 for exemptions. <sup>21</sup>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Track B	5b.1 HVAC manufacturer & model number on installed equipment matches either of the following (check box): <sup>22</sup> <input type="checkbox"/> National HVAC Design Report <input type="checkbox"/> Written approval received from designer		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	5b.2 External static pressure measured by Rater at contractor-provided test locations and documented below: <sup>23</sup> Return-Side External Static Pressure: _____ IWC      Supply-Side External Static Pressure: _____ IWC		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	5b.3 Permitted, but not required: National HVAC Commissioning Checklist collected, with no items left blank.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>6. Duct Quality Installation</b> (Applies to Heating, Cooling, Ventilation, Exhaust, & Pressure Balancing Ducts, Unless Noted in Footnote)					
6.1 Ductwork installed without kinks, sharp bends, compressions, or excessive coiled flexible ductwork. <sup>24</sup>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.2 Bedrooms pressure-balanced (e.g., using transfer grilles, jump ducts, dedicated return ducts, undercut doors) to achieve a Rater-measured pressure differential $\geq -3$ Pa and $\leq +3$ Pa with respect to the main body of the house when all air handlers are operating. Test configuration and an alternative compliance option in Footnote 25. <sup>25</sup>			<input type="checkbox"/>	<input type="checkbox"/>	-
6.3 All supply and return ducts in unconditioned space, including connections to trunk ducts, are insulated to $\geq R-6$ . <sup>26</sup>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.4 Rater-measured total duct leakage meets one of the following two options. Alternative in Footnote 28; <sup>27, 28, 29</sup>					
6.4.1 Rough-in: The greater of $\leq 4$ CFM25 per 100 sq. ft. of CFA or $\leq 40$ CFM25, with air handler & all ducts, building cavities used as ducts, & duct boots installed. All duct boots sealed to finished surface, Rater-verified at final. <sup>30</sup>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.4.2 Final: The greater of $\leq 8$ CFM25 per 100 sq. ft. of CFA or $\leq 80$ CFM25, with the air handler & all ducts, building cavities used as ducts, duct boots, & register grilles atop the finished surface (e.g., drywall, floor) installed. <sup>31</sup>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.5 Rater-measured duct leakage to outdoors the greater of $\leq 4$ CFM25 per 100 sq. ft. of CFA or $\leq 40$ CFM25. <sup>27, 32</sup>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>7. Dwelling Unit Mechanical Ventilation Systems ("Vent System") <sup>33</sup> &amp; Inlets in Return Duct <sup>34</sup></b>					
7.1 Rater-measured ventilation rate is within either $\pm 15$ CFM or $\pm 15\%$ of design report value. <sup>35</sup>			<input type="checkbox"/>	<input type="checkbox"/>	-
7.2 A readily-accessible ventilation override control installed and also labeled if its function is not obvious (e.g., a label is required for a toggle wall switch, but not for a switch that's on the ventilation equipment). <sup>36</sup>			<input type="checkbox"/>	<input type="checkbox"/>	-
7.3 For any outdoor air inlet connected to a ducted return of the HVAC system (Complete if present; otherwise check "N/A"): <sup>34</sup>					<input type="checkbox"/>
7.3.1 Controls automatically restrict airflow using a motorized damper during vent. off-cycle and occupant override. <sup>37</sup>			<input type="checkbox"/>	<input type="checkbox"/>	-
7.3.2 Rater-measured vent. rate is $\leq 15$ CFM or 15% above design value at highest HVAC fan speed. Alt. in Fn. 38. <sup>38</sup>			<input type="checkbox"/>	<input type="checkbox"/>	-
7.4 System fan rated $\leq 3$ sones if intermittent and $\leq 1$ sone if continuous, or exempted. <sup>39</sup>			<input type="checkbox"/>	<input type="checkbox"/>	-
7.5 If Vent System controller operates the HVAC fan, then HVAC fan operation is intermittent and either the fan type is ECM / ICM or the controls will reduce the run-time by accounting for HVAC system heating or cooling hours. <sup>40</sup>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.6 Bathroom fans are ENERGY STAR certified if used as part of the Vent System. <sup>41</sup>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.7 Air inlet location (Complete if ventilation air inlet location was specified on design report; otherwise check "N/A"): <sup>42, 43</sup>					<input type="checkbox"/>
7.7.1 Inlet pulls ventilation air directly from outdoors and not from attic, crawlspace, garage, or adjacent dwelling unit.			<input type="checkbox"/>	<input type="checkbox"/>	-
7.7.2 Inlet is $\geq 2$ ft. above grade or roof deck; $\geq 10$ ft. of stretched-string distance from known contamination sources not exiting the roof, and $\geq 3$ ft. distance from dryer exhausts and sources exiting the roof. <sup>44</sup>			<input type="checkbox"/>	<input type="checkbox"/>	-
7.7.3 Inlet is provided with rodent / insect screen with $\leq 0.5$ in. mesh.			<input type="checkbox"/>	<input type="checkbox"/>	-
<b>8. Local Mechanical Exhaust</b> - In each kitchen and bathroom, a system is installed that exhausts directly to the outdoors and meets one of the following Rater-measured airflow and manufacturer-rated sound level standards: <sup>35, 45</sup>					
Location		Continuous Rate	Intermittent Rate <sup>46</sup>		
8.1 Kitchen	Airflow	$\geq 5$ ACH, based on kitchen volume <sup>47, 48</sup>	$\geq 100$ CFM and, if not integrated with range, also $\geq 5$ ACH based on kitchen volume <sup>47, 48, 49</sup>		
	Sound	Recommended: $\leq 1$ sone	Recommended: $\leq 3$ sones		
8.2 Bathroom	Airflow	$\geq 20$ CFM	$\geq 50$ CFM		
	Sound	Required: $\leq 1$ sone	Recommended: $\leq 3$ sones		
<b>9. Filtration</b>					
9.1 MERV 6+ filter(s) installed in each ducted mech. system, designed so all return and mechanically supplied outdoor air passes through filter(s) prior to conditioning, and located to facilitate occupant access & regular service. <sup>50</sup>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.2 Filter access panel includes gasket and fits snugly against exposed edge of filter when closed to prevent bypass. <sup>51</sup>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>10. Combustion Appliances</b>					
10.1 Furnaces, boilers, & water heaters are mechanically drafted or direct-vented. Alternatives in Footnote 54. <sup>52, 53, 54</sup>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10.2 Fireplaces are mechanically drafted or direct-vented. Alternatives in Footnote 55. <sup>52, 53, 55</sup>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10.3 No unvented combustion appliances other than cooking ranges or ovens are located inside the home's pressure boundary. Alternative in Footnote 57. <sup>52, 56, 57</sup>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rater Name: _____		Rater Pre-Drywall Inspection Date <sup>58</sup> : _____	Rater Initials: _____	Photo of Rater <sup>3</sup> <input type="checkbox"/>	
Rater Name: _____		Rater Final Inspection Date <sup>59</sup> : _____	Rater Initials: _____	Photo of Rater <sup>3</sup> <input type="checkbox"/>	
Builder Employee: _____		Builder Inspection Date: _____	Builder Initials: _____		





ENERGY STAR Single-Family New Homes  
National Rater Field Checklist, Version 3.1 / 3.2 / 3.3 (Rev. 14)

HVAC System <sup>18</sup>			Must Correct	Rater Verified <sup>2,3</sup>	N/A <sup>4</sup>
<b>5. Heating &amp; Cooling Equipment</b> - Complete Track A - HVAC Grading <sup>19</sup> or Track B - HVAC Credential <sup>20</sup>					
Track A	5a.1 Blower fan volumetric airflow is Grade I or II per ANSI / RESNET / ACCA / ICC 310.		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	5a.2 Blower fan watt draw is Grade I or II per ANSI / RESNET / ACCA / ICC 310.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	5a.3 Refrigerant charge is Grade I per ANSI / RESNET / ACCA / ICC 310. See Footnote 21 for exemptions. <sup>21</sup>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Track B	5b.1 HVAC manufacturer & model number on installed equipment matches either of the following (check box): <sup>22</sup> <input type="checkbox"/> National HVAC Design Report <input type="checkbox"/> Written approval received from designer		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	5b.2 External static pressure measured by Rater at contractor-provided test locations and documented below: <sup>23</sup> Return-Side External Static Pressure: _____ IWC      Supply-Side External Static Pressure: _____ IWC		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	5b.3 Permitted, but not required: National HVAC Commissioning Checklist collected, with no items left blank.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>6. Duct Quality Installation</b> (Applies to Heating, Cooling, Ventilation, Exhaust, & Pressure Balancing Ducts, Unless Noted in Footnote)					
6.1 Ductwork installed without kinks, sharp bends, compressions, or excessive coiled flexible ductwork. <sup>24</sup>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.2 Bedrooms pressure-balanced (e.g., using transfer grilles, jump ducts, dedicated return ducts, undercut doors) to achieve a Rater-measured pressure differential $\geq -3$ Pa and $\leq +3$ Pa with respect to the main body of the house when all air handlers are operating. Test configuration and an alternative compliance option in Footnote 25. <sup>25</sup>			<input type="checkbox"/>	<input checked="" type="checkbox"/>	-
6.3 All supply and return ducts in unconditioned space, including connections to trunk ducts, are insulated to $\geq$ R-6. <sup>26</sup>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.4 Rater-measured total duct leakage meets one of the following two options. Alternative in Footnote 28: <sup>27, 28, 29</sup>			<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6.4.1 Rough-in: The greater of $\leq 4$ CFM25 per 100 sq. ft. of CFA or $\leq 40$ CFM25, with air handler & all ducts, building cavities used as ducts, & duct boots installed. All duct boots sealed to finished surface, Rater-verified at final. <sup>30</sup>			<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6.4.2 Final: The greater of $\leq 8$ CFM25 per 100 sq. ft. of CFA or $\leq 80$ CFM25, with the air handler & all ducts, building cavities used as ducts, duct boots, & register grilles atop the finished surface (e.g., drywall, floor) installed. <sup>31</sup>			<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6.5 Rater-measured duct leakage to outdoors the greater of $\leq 4$ CFM25 per 100 sq. ft. of CFA or $\leq 40$ CFM25. <sup>27, 32</sup>			<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>7. Dwelling Unit Mechanical Ventilation Systems ("Vent System") <sup>33</sup> &amp; Inlets in Return Duct <sup>34</sup></b>					
7.1 Rater-measured ventilation rate is within either $\pm 15$ CFM or $\pm 15\%$ of design report value. <sup>35</sup>			<input type="checkbox"/>	<input checked="" type="checkbox"/>	-
7.2 A readily-accessible ventilation override control installed and also labeled if its function is not obvious (e.g., a label is required for a toggle wall switch, but not for a switch that's on the ventilation equipment). <sup>36</sup>			<input type="checkbox"/>	<input type="checkbox"/>	-
7.3 For any outdoor air inlet connected to a ducted return of the HVAC system (Complete if present; otherwise check "N/A"): <sup>34</sup>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.3.1 Controls automatically restrict airflow using a motorized damper during vent, off-cycle and occupant override. <sup>37</sup>			<input type="checkbox"/>	<input type="checkbox"/>	-
7.3.2 Rater-measured vent. rate is $\leq 15$ CFM or 15% above design value at highest HVAC fan speed. Alt. in Fn. 38. <sup>38</sup>			<input type="checkbox"/>	<input type="checkbox"/>	-
7.4 System fan rated $\leq 3$ sones if intermittent and $\leq 1$ sone if continuous, or exempted. <sup>39</sup>			<input type="checkbox"/>	<input type="checkbox"/>	-
7.5 If Vent System controller operates the HVAC fan, then HVAC fan operation is intermittent and either the fan type is ECM / ICM or the controls will reduce the run-time by accounting for HVAC system heating or cooling hours. <sup>40</sup>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.6 Bathroom fans are ENERGY STAR certified if used as part of the Vent System. <sup>41</sup>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.7 Air inlet location (Complete if ventilation air inlet location was specified on design report; otherwise check "N/A"): <sup>42, 43</sup>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.7.1 Inlet pulls ventilation air directly from outdoors and not from attic, crawlspace, garage, or adjacent dwelling unit.			<input type="checkbox"/>	<input type="checkbox"/>	-
7.7.2 Inlet is $\geq 2$ ft. above grade or roof deck; $\geq 10$ ft. of stretched-string distance from known contamination sources not exiting the roof, and $\geq 3$ ft. distance from dryer exhausts and sources exiting the roof. <sup>44</sup>			<input type="checkbox"/>	<input type="checkbox"/>	-
7.7.3 Inlet is provided with rodent / insect screen with $\leq 0.5$ in. mesh.			<input type="checkbox"/>	<input type="checkbox"/>	-
<b>8. Local Mechanical Exhaust</b> - In each kitchen and bathroom, a system is installed that exhausts directly to the outdoors and meets one of the following Rater-measured airflow and manufacturer-rated sound level standards: <sup>35, 45</sup>					
Location		Continuous Rate	Intermittent Rate <sup>46</sup>		
8.1 Kitchen	Airflow	$\geq 5$ ACH, based on kitchen volume <sup>47, 48</sup>	$\geq 100$ CFM and, if not integrated with range, also $\geq 5$ ACH based on kitchen volume <sup>47, 48, 49</sup>		<input type="checkbox"/>
	Sound	Recommended: $\leq 1$ sone	Recommended: $\leq 3$ sones		<input checked="" type="checkbox"/>
8.2 Bathroom	Airflow	$\geq 20$ CFM	$\geq 50$ CFM		<input type="checkbox"/>
	Sound	Required: $\leq 1$ sone	Recommended: $\leq 3$ sones		<input checked="" type="checkbox"/>
<b>9. Filtration</b>					
9.1 MERV 6+ filter(s) installed in each ducted mech. system, designed so all return and mechanically supplied outdoor air passes through filter(s) prior to conditioning, and located to facilitate occupant access & regular service. <sup>50</sup>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.2 Filter access panel includes gasket and fits snugly against exposed edge of filter when closed to prevent bypass. <sup>51</sup>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>10. Combustion Appliances</b>					
10.1 Furnaces, boilers, & water heaters are mechanically drafted or direct-vented. Alternatives in Footnote 54. <sup>52, 53, 54</sup>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10.2 Fireplaces are mechanically drafted or direct-vented. Alternatives in Footnote 55. <sup>52, 53, 55</sup>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10.3 No unvented combustion appliances other than cooking ranges or ovens are located inside the home's pressure boundary. Alternative in Footnote 57. <sup>52, 56, 57</sup>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rater Name: _____		Rater Pre-Drywall Inspection Date <sup>58</sup> : _____	Rater Initials: _____	Photo of Rater <sup>3</sup> <input checked="" type="checkbox"/>	
Rater Name: _____		Rater Final Inspection Date <sup>59</sup> : _____	Rater Initials: _____	Photo of Rater <sup>3</sup> <input checked="" type="checkbox"/>	
Builder Employee: _____		Builder Inspection Date: _____	Builder Initials: _____		

At each inspection (i.e., pre-drywall and final), the Rater is required to capture a geo-tagged and time-stamped photo of themselves in front of the dwelling unit.

Rater Pre-Drywall Inspection Date<sup>58</sup>: \_\_\_\_\_ Rater Initials: \_\_\_\_\_ Photo of Rater<sup>3</sup>

Rater Final Inspection Date<sup>59</sup>: \_\_\_\_\_ Rater Initials: \_\_\_\_\_ Photo of Rater<sup>3</sup>

# During Inspection On-Site Photo Collection

**1** Rater “selfie” per inspection

**8** photos of ENERGY STAR checklist items:

- Air barriers, attic hatch gasket, and garage wall separation.

**10** items reinforcing existing photo requirements from ANSI-301 Normative Appendix B:

- Insulation, equipment model number, and performance tests.



Thermal Enclosure System		Must Correct	Builder Verified <sup>1</sup>	Rater Verified <sup>2,3</sup>	N/A <sup>4</sup>
<b>1. High-Performance Insulation &amp; Fenestration</b>					
1.1 Insulation meets specifications in National Rater Design Review Checklist Item 2.1.	<input type="checkbox"/>	Pre-rock+50 <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-
1.2 All insulation achieves Grade I install. per ANSI / RESNET / ICC 301. Alternatives in Footnote 5, 5, 6	<input type="checkbox"/>	Pre-rock+50 <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-
1.3 Fenestration meets specifications in National Rater Design Review Checklist Items 2.1 & 2.2.	<input type="checkbox"/>	-	<input type="checkbox"/>	<input type="checkbox"/>	-
<b>2. Fully-Aligned Air Barriers<sup>7</sup></b> - At each insulated location below, a complete air barrier is provided that is fully aligned as follows: <b>Ceilings:</b> At interior or exterior horizontal surface of ceiling insulation in Climate Zones 1-3; at interior horizontal surface of ceiling insulation in Climate Zones 4-8. Also, at exterior vertical surface of ceiling insulation in all climate zones (e.g., using a wind baffle that extends to the full height of the insulation in every bay or a tabbed baffle in each bay with a soffit vent that prevents wind washing in adjacent bays). <sup>8,9</sup>					
2.1 Dropped ceilings / soffits below unconditioned attics, and all other ceilings.	<input type="checkbox"/>	≤ 50 sq. ft. <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Walls:</b> At exterior vertical surface of wall insulation in all climate zones; also at interior vertical surface of wall insulation in Climate Zones 4-8. <sup>9,10</sup>					
2.2 Walls behind showers, tubs, staircases, and fireplaces.	<input type="checkbox"/>	≤ 50 sq. ft. <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.3 Attic knee walls and skylight shaft walls. <sup>11</sup>	<input type="checkbox"/>	≤ 50 sq. ft. <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.4 Walls adjoining porch roofs or garages.	<input type="checkbox"/>	≤ 50 sq. ft. <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.5 Double-walls and all other exterior walls.	<input type="checkbox"/>	≤ 50 sq. ft. <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-
<b>Floors:</b> At exterior vertical surface of floor insulation in all climate zones and, if over unconditioned space, also at interior horizontal surface including supports to ensure alignment. Alternatives in Footnotes 13 & 14. <sup>12,13,14</sup>					
2.6 Floors above garages, floors above unconditioned basements or crawlspaces, and cantilevered floors.	<input type="checkbox"/>	≤ 50 sq. ft. <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.7 All other floors adjoining unconditioned space (e.g., rim / band joists at exterior wall or at porch roof).	<input type="checkbox"/>	≤ 50 sq. ft. <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3. Reduced Thermal Bridging</b> – Reduced thermal bridging strategies are not mandatory. However, the following details must be accurately assessed per ANSI / RESNET / ICC 301. <sup>15</sup>					
3.1 Insulated ceilings assessed at the attic edge for variance in R-value and install quality.	<input type="checkbox"/>	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.2 Insulation assessed beneath attic platforms and walkways for variance in R-value and install quality.	<input type="checkbox"/>	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.3 Attic access panels, drop-down stairs, & whole-house fans assessed for insulated covers.	<input type="checkbox"/>	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.4 Above-grade walls separating conditioned from unconditioned space assessed for advanced framing.	<input type="checkbox"/>	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.5 Slabs on grade assessed for insulation where walls separate conditioned from unconditioned space.	<input type="checkbox"/>	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4. Air Sealing</b>					
4.1 Rater has verified each air sealing detail below. In addition, the home must meet Item 4.2. Unless otherwise noted below, "sealed" indicates the use of caulk, foam, or equivalent material.					
4.1.1 Ducts, flues, shafts, plumbing, piping, wiring, exhaust fans, & other penetrations to unconditioned space sealed, with blocking / flashing as needed.	<input type="checkbox"/>	≤ 5 penetrations <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-
4.1.2 Attic access panels, drop-down stairs, & whole house fans are gasketed (i.e., not caulked) or equipped with covers that are gasketed.	<input type="checkbox"/>	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.1.3 Recessed lighting fixtures adjacent to unconditioned space are ICAT labeled and gasketed.	<input type="checkbox"/>	No Limit <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.1.4 Drywall is sealed to top plate during installation, or from the attic side, at all unconditioned attic / wall interfaces. Drywall adhesive (but not other construction adhesives) is permitted to be used.	<input type="checkbox"/>	No Limit <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.1.5 Rough opening around windows & exterior doors is sealed.	<input type="checkbox"/>	-	<input type="checkbox"/>	<input type="checkbox"/>	-
4.1.6 Walls that separate attached garages from occupiable space are sealed. In addition, an air barrier is installed and sealed at floor cavities aligned with these walls.	<input type="checkbox"/>	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.1.7 Doors adjacent to unconditioned space (e.g., attics, garages, basements) or ambient conditions are made substantially air-tight with weatherstripping or equivalent gasket.	<input type="checkbox"/>	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.1.8 Above-grade sill plates adjacent to conditioned space sealed to foundation or sub-floor.	<input type="checkbox"/>	No Limit <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.1.9 In townhouses and duplexes, for fire-rated area separation walls, gap is sealed between the drywall common wall and the structural framing at all exterior boundaries.	<input type="checkbox"/>	No Limit <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.2 Rater-measured air leakage of Dwelling or Dwelling Unit meets one of the following: <sup>16</sup>					
4.2.1 For all Versions except those noted below: For National v3.2 and CA v3.4: ≤ 4.5 ACH50 For National v3.3 and CA v3.5: ≤ 4.0 ACH50 (see exception in Fn. 17) <sup>17</sup> For National v3.3 and CA v3.5: ≤ 3.5 ACH50 (see exception in Fn. 17) <sup>17</sup>	<input type="checkbox"/>	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.2.2 As an alternative, for a Dwelling with ≤ 1,500 sq. ft. of Conditioned Floor Area, a Townhouse, or an attached Dwelling Unit, air leakage is ≤ 0.30 CFM50 per sq. ft. of Dwelling Unit Compartmentalization Boundary area.	<input type="checkbox"/>	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

HVAC System <sup>18</sup>		Must Correct	Rater Verified <sup>2,3</sup>	N/A <sup>4</sup>	
<b>5. Heating &amp; Cooling Equipment</b> - Complete Track A - HVAC Grading <sup>19</sup> or Track B - HVAC Credential <sup>20</sup>					
Track A	5a.1 Blower fan volumetric airflow is Grade I or II per ANSI / RESNET / ACCA / ICC 310.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	5a.2 Blower fan watt draw is Grade I or II per ANSI / RESNET / ACCA / ICC 310.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	5a.3 Refrigerant charge is Grade I per ANSI / RESNET / ACCA / ICC 310. See Footnote 21 for exemptions. <sup>21</sup>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Track B	5b.1 HVAC manufacturer & model number on installed equipment matches either of the following (check box): <sup>22</sup> <input type="checkbox"/> National HVAC Design Report <input type="checkbox"/> Written approval received from designer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	5b.2 External static pressure measured by Rater at contractor-provided test locations and documented below: <sup>23</sup> Return-Side External Static Pressure: _____ IWC      Supply-Side External Static Pressure: _____ IWC	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	5b.3 Permitted, but not required: National HVAC Commissioning Checklist collected, with no items left blank.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>6. Duct Quality Installation</b> (Applies to Heating, Cooling, Ventilation, Exhaust, & Pressure Balancing Ducts, Unless Noted in Footnote)					
6.1 Ductwork installed without kinks, sharp bends, compressions, or excessive coiled flexible ductwork. <sup>24</sup>					
6.2 Bedrooms pressure-balanced (e.g., using transfer grilles, jump ducts, dedicated return ducts, undercut doors) to achieve a Rater-measured pressure differential ≥ -3 Pa and ≤ +3 Pa with respect to the main body of the house when all air handlers are operating. Test configuration and an alternative compliance option in Footnote 25. <sup>25</sup>					
6.3 All supply and return ducts in unconditioned space, including connections to trunk ducts, are insulated to ≥ R-6. <sup>26</sup>					
6.4 Rater-measured total duct leakage meets one of the following two options. Alternative in Footnote 28: <sup>27,28,29</sup>					
6.4.1 <b>Rough-in:</b> The greater of ≤ 4 CFM25 per 100 sq. ft. of CFA or ≤ 40 CFM25, with air handler & all ducts, building cavities used as ducts, & duct boots installed. All duct boots sealed to finished surface, Rater-verified at final. <sup>30</sup>					
6.4.2 <b>Final:</b> The greater of ≤ 8 CFM25 per 100 sq. ft. of CFA or ≤ 80 CFM25, with the air handler & all ducts, building cavities used as ducts, duct boots, & register grilles atop the finished surface (e.g., drywall, floor) installed. <sup>31</sup>					
6.5 Rater-measured duct leakage to outdoors the greater of ≤ 4 CFM25 per 100 sq. ft. of CFA or ≤ 40 CFM25. <sup>27,32</sup>					
<b>7. Dwelling Unit Mechanical Ventilation Systems ("Vent System")<sup>33</sup> &amp; Inlets in Return Duct<sup>34</sup></b>					
7.1 Rater-measured ventilation rate is within either ± 15 CFM or ±15% of design report value. <sup>35</sup>					
7.2 A readily-accessible ventilation override control installed and also labeled if its function is not obvious (e.g., a label is required for a toggle wall switch, but not for a switch that's on the ventilation equipment). <sup>36</sup>					
7.3 For any outdoor air inlet connected to a ducted return of the HVAC system (Complete if present; otherwise check "N/A"): <sup>34</sup>					
7.3.1 Controls automatically restrict airflow using a motorized damper during vent. off-cycle and occupant override. <sup>37</sup>					
7.3.2 Rater-measured vent. rate is ≤ 15 CFM or 15% above design value at highest HVAC fan speed. Alt. in Fn. 38. <sup>38</sup>					
7.4 System fan rated ≤ 3 zones if intermittent and ≤ 1 zone if continuous, or exempted. <sup>39</sup>					
7.5 If Vent System controller operates the HVAC fan, then HVAC fan operation is intermittent and either the fan type is ECM / ICM or the controls will reduce the run-time by accounting for HVAC system heating or cooling hours. <sup>40</sup>					
7.6 Bathroom fans are ENERGY STAR certified if used as part of the Vent System. <sup>41</sup>					
7.7 Air inlet location (Complete if ventilation air inlet location was specified on design report; otherwise check "N/A"): <sup>42,43</sup>					
7.7.1 Inlet pulls ventilation air directly from outdoors and not from attic, crawlspace, garage, or adjacent dwelling unit.					
7.7.2 Inlet is ≥ 2 ft. above grade or roof deck; ≥ 10 ft. of stretched-string distance from known contamination sources not exiting the roof, and ≥ 3 ft. distance from dryer exhausts and sources exiting the roof. <sup>44</sup>					
7.7.3 Inlet is provided with rodent / insect screen with ≤ 0.5 in. mesh.					
<b>8. Local Mechanical Exhaust</b> – In each kitchen and bathroom, a system is installed that exhausts directly to the outdoors and meets one of the following Rater-measured airflow and manufacturer-rated sound level standards: <sup>35,45</sup>					
<b>Location</b>		<b>Continuous Rate</b>	<b>Intermittent Rate<sup>46</sup></b>		
8.1 Kitchen	Airflow	≥ 5 ACH, based on kitchen volume <sup>47,48</sup>	≥ 100 CFM and, if not integrated with range, also ≥ 5 ACH based on kitchen volume <sup>47,48,49</sup>		
	Sound	Recommended: ≤ 1 sone	Recommended: ≤ 3 sones		
8.2 Bathroom	Airflow	≥ 20 CFM	≥ 50 CFM		
	Sound	Required: ≤ 1 sone	Recommended: ≤ 3 sones		
<b>9. Filtration</b>					
9.1 MERV 6+ filter(s) installed in each ducted mech. system, designed so all return and mechanically supplied outdoor air passes through filter(s) prior to conditioning, and located to facilitate occupant access & regular service. <sup>50</sup>					
9.2 Filter access panel includes gasket and fits snugly against exposed edge of filter when closed to prevent bypass. <sup>51</sup>					
<b>10. Combustion Appliances</b>					
10.1 Furnaces, boilers, & water heaters are mechanically drafted or direct-vented. Alternatives in Footnote 54. <sup>52,53,54</sup>					
10.2 Fireplaces are mechanically drafted or direct-vented. Alternatives in Footnote 55. <sup>52,53,55</sup>					
10.3 No unvented combustion appliances other than cooking ranges or ovens are located inside the home's pressure boundary. Alternative in Footnote 57. <sup>52,56,57</sup>					



# On-Site Photos for Multifamily New Construction (MFNC)

For MFNC, the National Rater Field Checklist defers to the existing MFNC Photo Documentation Guidance Document, which generally requires one photo per unique appliance/assembly/instance/etc.

Rater Name: _____	Rater Pre-Drywall Inspection Date(s) <sup>88</sup> : _____	Rater Initials: _____
Rater Company Name: _____	On-site Photos Documented <sup>89</sup> <input type="checkbox"/> 	
Rater Name: _____	Rater Final Inspection Date(s) <sup>90</sup> : _____	Rater Initials: _____
Rater Company Name: _____	On-site Photos Documented <sup>89</sup> <input type="checkbox"/> 	

89. The Rater is required to capture photos according to the Photo Documentation Guidance Document available at [www.energystar.gov/mfnc](http://www.energystar.gov/mfnc), which generally requires one representative photo per building for each specified item, as well as one geo-tagged and time-stamped photo of the Rater in front of the dwelling unit or building during each inspection.

# During Inspection On-Site Photo Collection

- **Now:** Ensure the photos already specified in ANSI / RESNET 301 and MINHERS are being captured.
- **Soon:** With Rev 14/05, capture additional photos as specified on the National Rater Field checklist; be prepared to provide on request.
- **Later:** In future, systems will be introduced for centralized photo upload.

See applicable National Rater Field Checklist at [energystar.gov/newhomesrequirements](https://energystar.gov/newhomesrequirements)



## After Inspection

# Printing of ENERGY STAR Label/Certificate

As a reminder, the ENERGY STAR label and certificate are authorized to be printed via approved rating software only, which helps ensure certifications are accurately reflected in the RESNET Registry.

- **Now:** Ensure the label/certificate is being printed directly from approved rating software.



## After Inspection

# New QC Checklist for Rev 14/05

Rev. 14/05 will introduce forthcoming updates to the ENERGY STAR Quality Control / Certification Review checklists.

- Focused on file review; field review will use standard checklist
  - New photo review task, for partial assurance of installed measures.
- 
- **Soon:** Use new QC checklist for homes/apartments certified using Rev. 14/05.



# After Inspection

## Direct HCO Quality Control Review

RESNET Staff will begin performing randomly selected quality control reviews on a fraction of rating files submitted for ENERGY STAR certification.

- Two levels of review:
  - File/Photo Completeness + ENERGY STAR Checklists
  - In-depth RESNET QA File Review + ENERGY STAR QA Checklist
- RESNET staff will perform quality control file review and send feedback and/or corrections, if applicable.
- **Now:** QA Reviews will not impact registration or printing certificates
- **Later:** Direct HCO Quality Control Review will occur prior to Certification.

# Stretch Goals



# Stretch Goals

- In the future, for the 10% of homes selected, it will be required to complete the QC File Review before completing a certification.
  - This ensures any deficiencies are discovered when there is still a chance to fix, and avoid the possibility of a “clawback”.
- To be successful, file reviews should be performed frequently, as a continuous activity – “catch and kill.”
- To prepare, begin working towards:
  - ↳ More frequent reviews – don’t wait until the end of the quarter!
  - ↳ Coverage plans for work schedules, vacations, etc.

# Summary





# 2025 QAQC To-Do List

- “Freebies”: Check Rater/RFI training records, including MFNC training.  
Check that program checklists are being completed and well organized.  
Check labels/certificates are printed via approved software.
- Ensure QADs working on multifamily projects have MFNC training.
- Attend 1-hour “ENERGY STAR Year Ahead” training module (recommended).
- Capture the photos specified in Rev. 14/05 National Rater Field Checklist.
- Transition to the Rev. 14/05 ENERGY STAR Quality Control checklist.
- Be prepared to engage with RESNET staff’s direct file review, upon request.
- Stretch Goal:* Accelerate your QC file reviews

# More info to come

Expect additional information throughout the year, including:

- The EPA will re-present the conference sessions this spring at its Partner Meeting webinar series (forthcoming).
- A webinar on Rev. 14/05 ENERGY STAR QC Checklist, once released.
- RESNET's scheduled QAD webinars and rountables.
- Additional RESNET webinar(s) for general audience.
- Emailed guidance/instructions from RESNET.



# More at the conference (RESNET):

## **Updates to the RESNET QA Program for 2025/Future of QA**

**Tuesday 1:00 PM at San Pedro** – Scott Doyle, Laurel Elam, and Billy Giblin

## **Instructor Roundtable**

**Tuesday 2:30 PM at San Pedro** – Scott Doyle, Laurel Elam, and Billy Giblin

## **QAD Roundtable**

**Tuesday 4:00 PM at San Pedro**– Scott Doyle, Laurel Elam, Billy Giblin, and Ryan Moore

Scott



# More at the conference (EPA):

## **A Beginner's Guide to ENERGY STAR Multifamily New Construction**

**Monday 4:00 PM** at Joshua Tree – Rebecca Hudson, Gayathri Vijayakumar (SWA)

## **Tips and Tricks for Meeting the Latest ENERGY STAR Program Requirements – and Beyond**

**Tuesday 1:00 PM** at Joshua Tree – Dean Gamble, Rebecca Hudson

## **ENERGY STAR: Multifamily New Construction (MFNC) Revision 5**

**Tuesday 2:00 PM** at Joshua Tree – Rebecca Hudson, Gayathri Vijayakumar (SWA)

## **Level up with ENERGY STAR NextGen: Program Updates and Rater Training**

**Tuesday 4:00 PM** at Joshua Tree – Zak Shadid, Dylan Tindall (the BER)



# Questions?

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