# Future of RESNET® Quality Assurance

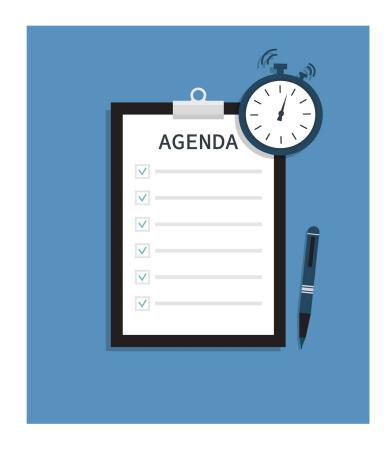
Scott Doyle, Laurel Elam, Billy Giblin *RESNET* 





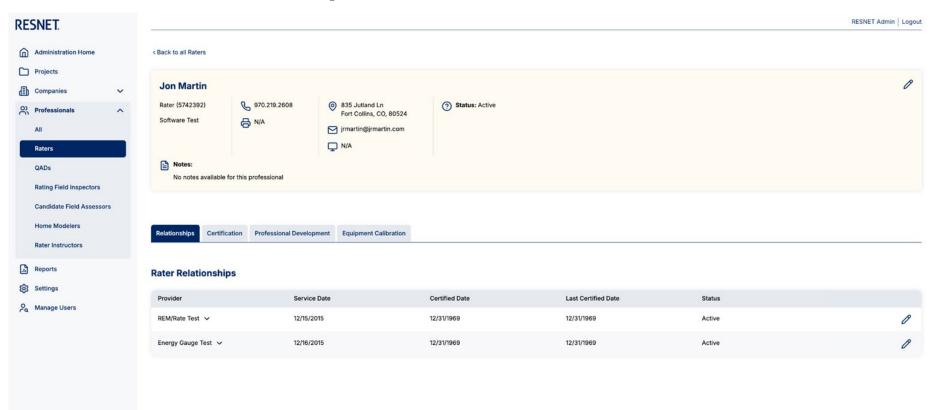
## Agenda

- Registry Update
- Chapter Nine Amendment Update
- QA App Updates
- Frequency of Enhanced QA
- Hiring New QA Team Members
- ENERGY STAR Quality Assurance
- New Sampling Protocol and QA



## **Registry Update**

- Alpha Version February (staff and testers)
- Beta Launch in March or April for Providers



## **Chapter Nine Revisions**

- DRAFT PDS-02 MINHERS Addendum 75, Update Ch 9
  - Chapter Nine is currently being voted on by the SDC 900 to send out for Public Comment (expected February 2025)
- Highlights:
  - 903.1.2 Requires QA reviews submitted to RESNET
  - 904.3.3.3.5.1 "Remote QA" Procedures and Eligibility (language update)
  - 908/909/910 Updated Ethics & Appeals and Disciplinary Actions

## **RESNET QA app**

### Looking Ahead...



## We're All Too Busy, and...

#### It is time.

- Draft PDS-01 MINHERS Addendum 75, Update Chapter 9 QA
  - 903.1.2 AND 904.3.2
- On track to be REQUIRED by July 1, 2025
- Start NOW (App or API)
- 2025 Annual QA Report will be SO much easier
- 43 Providers have submitted QA Reviews via RESNET QA app as of last Friday 1/24/25



## **RESNET QA App - Future Updates!**

- Q1- Previous Year QA
  - "Date Reviewed" backdate to previous year
- Cloud Syncing In-Progress/Alert QA Reviews
  - Save when you log out
- QA Dashboard access for QADs & Admins
- Multiple Field Verifiers (Primary gets credit)
  - Who did what when
  - v3 Registry Schema
    - then Standards and Software
- QA Review Summary Email
  - Emphasize Errors and Comments





## Integration of EEP QA Checklists

We will be integrating all the recent versions of the EEP QA Checklists in 2025.

\* "One Stop Shop" for QA

\* Support initiatives outlined in new HCO QAQC requirements

\* More transparent QA with national programs

## **RESNET QA App - Future Updates!?!**

#### **RESNET QA app**

- Designed to meet the NEEDS of compliance to MINHERS and ANSI Standards for completion of the QA Review Checklist
- We encourage the free market to develop tools and functionality beyond that (WANTS)



## **App ACCESS**

iPhones: App Store

**PRIVATE LINK** 

Android: Google Play

**PUBLIC** 

Web App: <a href="https://qa.resnet.us">https://qa.resnet.us</a>

Future app updates will be automatic.







## Frequency of Enhanced QA visits

#### **Enhanced QA from RESNET MINHERS:**

903.1.2 Annual REVIEW OF Rating Quality Assurance Provider Report Submission And Enhanced Quality Assurance REVIEWS Monitoring Of QA Providers

903.1.2.2.2 This QA review may be enhanced monitoring of QA Provider files and quality assurance process done remotely, an on-site field review, or any combination of these.

903.1.2.2.3 903.1.2.2.3 903.3 Quality Assurance File Review RESNET will centrally administer quality assurance review of ratings using data in the National RESNET Registry.

903.1.2.3 RESNET Staff shall conduct enhanced review of newly accredited Rating Quality Assurance Providers within twelve months of accreditation.

903.1.2.4 Every active accredited Rating Quality Assurance Provider shall receive an enhanced review by RESNET staff no less than once every four years.



### Frequency of Enhanced QA visits

- \* There is no maximum of direct QA Field Observation visits.
- \* If we observe issues or make findings that warrant more attention, we will plan more visits for sake of mentoring and continual improvement.









#### **QA Project Manager**

Filled in Q2 2025



#### **QA Investigations PM**

Filled in Q4 2025



#### **QA Compliance Specialist**

RESNET has recently posted job openings for four (4) Regional QA Positions



#### **QA Data Analyst**

RESNET has one opening expected for this position (shared resource)

### **RESNET QA Team**



Scott Doyle

Managing Director of Quality Assurance

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Billy Giblin

Quality Assurance Field Specialist

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Jordi Kimbrough

QA Project Manager

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Ryan Moore

QA Investigations Project Manager

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QA Project Manager

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Ryan Moore

**QA Investigations Project Manager** 

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## **ENERGY STAR Quality Assurance**



Implementation of ENERGY STAR QAQC Begins March of 2025

Final Policy Released in August, 2024



#### **Key Changes:**

New Photo and Data Collection Reqs

**HCO Direct File QA** 

Eventually Advancing File QA to Occur

**Prior to Certification** 

Now Training Page



## **ENERGY STAR QA/QC Implementation Timeline**









#### **Direct HCO File QA Begins**

Ratings selected upon Registration, files shared upon request via separate system.

### HCO Training and Certification Tracking

RESNET to implement measures to track training for verifiers and QADs

#### **QA Precedes Cert**

Photo and Checklist Documentation collected for every home, integrated with Registry/Rating Software Tools.



## RESNET Direct HCO QA 2025

Use this slide for a brief overview of content and step breakdown. Add highlights in the colored box, add applicable icons and photo.

 $\Rightarrow$  STEP ONE

Provider submits ENERGY STAR ratings to Registry, print permissions unlocked and certification issued. RESNET Notifies

Provider when a file was selected for HCO QA review.

STEP TWO

Provider collects checklists and photos and submits to RESNET via separate file sharing system.

 $\Rightarrow$  STEP THREE

RESNET QA Team completes file QA review, results shared with Provider.

## 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 geotagged).
- 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.





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

Thermal Facilities Contains	1: P	Permit Date:		
Thermal Enclosure System	Must	Builder	Rater	N/A
1. High-Performance Insulation & Fenestration	Correct	Verified 1	Verified <sup>2, 3</sup>	1700
1.1 Insulation meets specifications in National Rater Design Review Checklist Item 2.1.		Pre-rock+50		-
1.2 All insulation achieves Grade I install. per ANSI / RESNET / ICC 301. Alternatives in Footnote 5. 5.6		Pre-rock+50 🔲		
1.3 Fenestration meets specifications in National Rater Design Review Checklist Items 2.1 & 2.2.				-
2. Fully-Aligned Air Barriers 7 - At each insulated location below, a complete air barrier is provided the	at is fully alig	aned as follow	WS:	
<u>Ceilings</u> : At interior or exterior horizontal surface of ceiling insulation in Climate Zones 1-3; at Interior ho Climate Zones 4-8. Also, at exterior vertical surface of ceiling insulation in all climate zones (e.g., using height of the insulation in every bay or a tabbed baffle in each bay with a soffit vent that prevents wind w	wind baffle	that extends acent bays).	to the full	
2.1 Dropped ceilings / soffits below unconditioned attics, and all other ceilings.		s 50 sq. tt. □		
Walls: At exterior vertical surface of wall insulation in all climate zones; also at interior vertical surface of		with the same and the same and	the state of the state of the state of	-
2.2 Walls behind showers, tubs, staircases, and fireplaces.	0	5 50 sq. tt.	-	
2.3 Attic knee walls and skylight shaft walls. 11		≤ 50 sq. ft. □	The state of the s	
2.4 Walls adjoining porch roofs or garages.		≤ 50 sq. ft. □		
2.5 Double-walls and all other exterior walls.		≤ 50 sq. ft. □		-
Floors: At exterior vertical surface of floor insulation in all climate zones and, if over unconditioned space including supports to ensure alignment. Alternatives in Footnotes 13 & 14. <sup>12, 13, 14</sup>	, also at inte	rior horizonta	al surface	
2.6 Floors above garages, floors above unconditioned basements or crawlspaces, and cantilevered floor	s. 🗆	s 50 sq. ft. 🗌		
2.7 All other floors adjoining unconditioned space (e.g., rim / band joists at exterior wall or at porch roof)		≤ 50 sq. ft. □		
<ol> <li>Reduced Thermal Bridging – Reduced thermal bridging strategies are not mandatory. However, the assessed per ANSI / RESNET / ICC 301. 15</li> </ol>	e following o	details must b	be accurate	ely
<ol> <li>Insulated ceilings assessed at the attic edge for variance in R-value and install quality.</li> </ol>				E
3.2 Insulation assessed beneath attic platforms and walkways for variance in R-value and install quality.		- 34		
3.3 Attic access panels, drop-down stairs, & whole-house fans assessed for insulated covers.				
3.4 Above-grade walls separating conditioned from unconditioned space assessed for advanced framing	. 0	12	0	
3.5 Slabs on grade assessed for insulation where walls separate conditioned from unconditioned space				
4. Air Sealing				
4.1 Rater has verified each air sealing detail below. In addition, the home must meet Item 4.2. Unless of the use of caulk, foam, or equivalent material.	herwise note	d below, "sea	aled" indica	ates
4.1.1 Ducts, flues, shafts, plumbing, piping, wiring, exhaust fans, & other penetrations to uncondition	ed 🗈	s 5 peretrations		
space sealed, with blocking / flashing as needed.				-
	п		00	-
space sealed, with blocking / flashing as needed.  4.1.2 Attic access panels, drop-down stairs, & whole house fans are gasketed (i.e., not caulked) or	0	No Limit	on	0
space sealed, with blocking? flashing as needed.  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.	0	-	00	0
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space sealed, with blocking? flashing as needed.  4.1.2 Altic access panels, drop-down stairs, & whole house fans are gasketed (i.e., not cauliked) or equipped with covers that are gasketed.  4.1.3 Recessed lighting fixtures adjacent to unconditioned space are ICAT labeled and gasketed.  4.1.4 Drywali 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.		No Limit	0	0
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space sealed, with blocking? flashing as needed.  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.  4.1.3 Recessed lighting fixtures adjacent to unconditioned space are ICAT labeled and gasketed.  4.1.4 Drywall is sealed to top plate during installation, or from the attic side, at all unconditioned attic wall interfaces. Drywall adhesives (but not other construction adhesives) is permitted to be used.  4.1.5 Rough opening around windows & exterior doors is sealed.  4.1.6 Walls that separate attached garages from occupiable space are sealed. In addition, an air bar is installed and sealed at floor cavities aligned with these walls.  4.1.7 Doors adjacent to unconditioned space (e.g., attics, garages, basements) or ambient conditions are made substantially air-light with weatherstripping or equivalent gasket.  4.1.8 Above-grade sill plates adjacent to conditioned space sealed to foundation or sub-floor.  4.1.9 In townhouses and duplexes, for fire-rated area separation walls, gap is sealed between the		No Linit   No Linit   No Linit   No Linit   No Linit   No Linit	0	0

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Revised 01/15/2025 OMB Control Expiration Date: 01/31/2024 Page 1 of 6 EPA Form Number: 5900-428



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

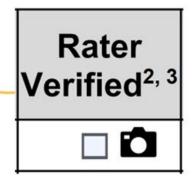


#### ENERGY STAR Single-Family New Homes National Rater Field Checklist, Version 3.1 / 3.2 / 3.3 (Rev. 14)

Home Address:	City: State:	P	ermit Date:		
Thermal Enclosure System		Must	Builder	Rater	N/A
High-Performance Insulation & Fenestration		Correct	Verified 1	Verified <sup>2, 3</sup>	
1.1 Insulation meets specifications in National Rater Design	Review Checklist Item 2.1.		Pre-rock+50 🗆		4
1.2 All insulation achieves Grade I install, per ANSI / RESNI	ET / ICC 301. Alternatives in Footnote 5. 5, 6		Pre-rock+50 🔲		
1.3 Fenestration meets specifications in National Rater Des	gn Review Checklist Items 2.1 & 2.2.	0			
2. Fully-Aligned Air Barriers 7 - At each insulated location	n below, a complete air barrier is provided that is	s fully alig	ned as follo	ws:	
Cellings: At interior or exterior horizontal surface of ceiling in Climate Zones 4-8. Also, at exterior vertical surface of ceilin height of the insulation in every bay or a tabbed baffle in each	g insulation in all climate zones (e.g., using a wi	nd baffle t	hat extends	to the full	in
<ol><li>2.1 Dropped ceilings / soffits below unconditioned attics, and</li></ol>	d all other ceilings.		s 50 sq. ft.		E
Walls: At exterior vertical surface of wall insulation in all clim	ate zones; also at interior vertical surface of wa	Il insulatio	n in Climate	Zones 4-8	3. 9.
2.2 Walls behind showers, tubs, staircases, and fireplaces.			s 50 sq. ft.		- [
2.3 Attic knee walls and skylight shaft walls. 11			≤ 50 sq. ft. □		E
2.4 Walls adjoining porch roofs or garages.			≤ 50 sq. ft. □		1
2.5 Double-walls and all other exterior walls.		0	≤ 50 sq. ft. □		
Floors: At exterior vertical surface of floor insulation in all clincluding supports to ensure alignment. Alternatives in Foot		so at inter	ior horizont	al surface	
2.6 Floors above garages, floors above unconditioned baser		0	s 50 sq. ft.	00	T
2.7 All other floors adjoining unconditioned space (e.g., rim		0	≤ 50 sq. ft. □		1
Reduced Thermal Bridging - Reduced thermal bridgingssessed per ANSI / RESNET / ICC 301. 15		ollowing d		be accurate	ely
3.1 Insulated ceilings assessed at the attic edge for variance	in R-value and install quality.	To			Ti
3.2 Insulation assessed beneath attic platforms and walkwa	The state of the s	0			1
3.3 Attic access panels, drop-down stairs, & whole-house fa		0		0	1
3.4 Above-grade walls separating conditioned from uncondition		0		0	i
3.5 Slabs on grade assessed for insulation where walls separating		0		0	t
4. Air Sealing	state conditioned iron disconditioned apace.				٠,
		1			
4.1 Rater has verified each air sealing detail below. In additi the use of caulk, foam, or equivalent material.		wise noted	below, 'se	aled indici	ate
4.1.1 Ducts, flues, shafts, plumbing, piping, wiring, exhauspace sealed, with blocking / flashing as needed.		0	s 5 penetrations	0	
4.1.2 Attic access panels, drop-down stairs, & whole hou equipped with covers that are gasketed.	se fans are gasketed (i.e., not caulked) or			00	1
4.1.3 Recessed lighting fixtures adjacent to unconditione	d space are ICAT labeled and gasketed.		No Limit		1
4.1.4 Drywall is sealed to top plate during installation, or wall interfaces. Drywall adhesive (but not other cor			No Limit		
	sepled				
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4.1.5 Rough opening around windows & exterior doors is     4.1.6 Walls that separate attached garages from occupia is installed and sealed at floor cavities aligned with	ble space are sealed. In addition, an air barrier	0	94		
4.1.6 Walls that separate attached garages from occupia	ble space are sealed. In addition, an air barrier these walls. . garages, basements) or ambient conditions	0		0	-
4.1.6 Walls that separate attached garages from occupia is installed and sealed at floor cavities aligned with     4.1.7 Doors adjacent to unconditioned space (e.g., attics	ble space are sealed. In addition, an air barrier these walls. . garages, basements) or ambient conditions ng or equivalent gasket.	177	No Limit	2.00	ı
4.1.6 Walls that separate attached garages from occupia is installed and sealed at floor cavities aligned with 4.1.7 Doors adjacent to unconditioned space (e.g., attics are made substantially air-light with weatherstrippi	ble space are sealed. In addition, an air barrier these walls. garages, basements) or ambient conditions ng or equivalent gasket. oe sealed to foundation or sub-floor. paration walls, gap is sealed between the	0		0	
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4.1.6 Walls that separate attached garages from occupia is installed and sealed at floor cavities aligned with 4.1.7 Doors adjacent to unconditioned space (e.g., attics are made substantially air-tight with weatherstrippi 4.1.8 Above-grade sill plates adjacent to conditioned spa 4.1.9 in townhouses and duplexes, for fire-rated area se drywall common wall and the structural framing at 4.2 Rater-measured air leakage of Dwelling or Dwelling Unit 4.2.1 For all Versions except those noted below: s 4.	ble space are sealed. In addition, an air barrier these walls. garages, basements) or ambient conditions ng or equivatent gasket.  ce sealed to foundation or sub-floor.  paratison walls, gap is sealed between the all exterior boundaries.	0	No Limit	0	1
4.1.6 Walls that separate attached garages from occupia is installed and sealed at floor cavities aligned with 4.1.7 Doors adjacent to unconditioned space (e.g., attics are made substantially air-tight with weatherstrippi 4.1.8 Above-grade sill plates adjacent to conditioned spa 4.1.9 In townhouses and duplexes, for fire-rated area ser drywall common wall and the structural framing at 4.2 Rater-measured air leakage of Dwelling or Dwelling Unit 4.2.1 For all Versions except those noted below:  4.2 For National v3.2 and CA v3.4:  5.4 S4.5 S4.5 S4.5 S4.5 S4.5 S4.5 S4.5 S	ble space are sealed. In addition, an air barrier these walls. garages, basements) or ambient conditions gor equivalent gasket. ce sealed to foundation or sub-floor. paration walls, gap is sealed between the all exterior boundaries. meets one of the following: <sup>16</sup> 5 ACH50	0	No Limit	0	1

 Revised 01/15/2025
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 OMB Control Number: 2060-0586
 OMB Control Expiration Date: 01/31/2024
 EPA Form Number:



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







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Milms	
DAM BOW OTHER	

#### ENERGY STAR Single-Family New Homes

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

	C Syste		uipment - Complete Track	A - HVAC Gradin	og 19 or Track B - HVAC	Credential 20	Must	Rater Verified <sup>2,2</sup>	NIA
		CONTRACTOR OF THE PERSON	umetric airflow is Grade I or					00	
Track			t draw is Grade I or II per Af			N .	0	0	
A	Annual residence			Appell to the control of the control		Od for supportions 21		0	Ē
			arge is Grade I per ANSI / R				LU.		-
			cturer & model number on in				0	00	0
Track			AC Design Report		Written approval receiv				
В	5b.2 Ex	ternal static	pressure measured by Rate	r at contractor-pr	ovided test locations ar	nd documented below:23	0	0	
	Ret	turn-Side Ex	ternal Static Pressure:	IWC Supply	y-Side External Static P	ressure:IWC	-		
	5b.3 Pe	rmitted, but	not required: National HVAC	Commissioning	Checklist collected, wit	th no items left blank.			E
s. Du	ct Qualit	ty Installat	ion (Applies to Heating, Coo	oling, Ventilation,	Exhaust, & Pressure B	alancing Ducts, Unless N	loted in F	ootnote)	-
			out kinks, sharp bends, com					0	- [
			lanced (e.g., using transfer				-		-
ac	chieve a F	Rater-measu	ured pressure differential ≥ - re operating. Test configurat	3 Pa and ≤ +3 Pa	with respect to the ma	in body of the house		00	1
			ucts in unconditioned space,				0	0	-
			luct leakage meets one of th					_	-
			ter of ≤ 4 CFM25 per 100 sq				1		-
	cavities	used as du	cts, & duct boots installed. A	Il duct boots seal	ed to finished surface,	Rater-verified at final. 50		00	E
6.4.2			f ≤ 8 CFM25 per 100 sq. ft. o cts, duct boots, & register gr					00	1
5.5 R			eakage to outdoors the great				0	00	1
			nical Ventilation Systems						
			ation rate is within either ± 15					00	
							- U		-
			ntilation override control insi wall switch, but not for a swi						10
									_
					and the second s				
					system (Complete if pre			-	-
7.3.1	1 Controls	s automatica	ally restrict airflow using a mo	otorized damper	during vent. off-cycle ar	nd occupant override. 37			-
7.3.1	1 Controls	s automatica		otorized damper	during vent. off-cycle ar	nd occupant override. 37		0	
7.3.1	1 Controls 2 Rater-m	s automatica easured ve	ally restrict airflow using a mo	otorized damper o above design val	during vent. off-cycle ar ue at highest HVAC far	nd occupant override. 37			
7.3.1 7.3.2 7.4 Sy 7.5 If	Controls Rater-m ystem fan Vent Sys	s automatica easured ve rated ≤ 3 s tem controll	ally restrict airflow using a mo nt. rate is ≤ 15 CFM or 15%	otorized damper above design val one if continuous nen HVAC fan op	during vent. off-cycle ar ue at highest HVAC far , or exempted. <sup>39</sup> eration is intermittent a	nd occupant override. 37 In speed, Alt. in Fn. 38, 38 and either the fan type is		0	
7.3.1 7.3.2 7.4 Sy 7.5 If	Controls Rater-m ystem fan Vent Syst CM / ICM	s automatica neasured ve rated ≤ 3 s tem controll or the cont	ally restrict airflow using a month. rate is $\leq$ 15 CFM or 15% ones if intermittent and $\leq$ 1 ser operates the HVAC fan, the	otorized damper above design val one if continuous nen HVAC fan op by accounting for	during vent. off-cycle ar ue at highest HVAC far , or exempted. 39 eration is intermittent a HVAC system heating	nd occupant override. 37 In speed, Alt. in Fn. 38, 38 and either the fan type is		0	
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7.3.1 7.3.2 7.4 Sy 7.5 H EC 7.7 Ai 7.7.7 Ai 7.7.7 7.7.7 7.7.7 8. Locat 10.0 Sy 10.0 Sy 10.0 Co 10.1 F	I Controls C Rater-m yestem fam Vent System Vent Syste	s automatics easured ve in rated ≤ 3 s tem controll of the control of the controll of the controll of the con	ally restrict airflow using a min. rate is ≤ 15 CFM or 15% once if intermittent and ≤ 1 a er operates the HVAC fan, it ols will reduce the run-lime IERGY STAR certified if used better in the state of	otorized damper of above design value one if continuous one if Con	during vent. off-cycle ar ue at highest HVAC far ue at highest HVAC far with the control of the	nd occupant override. 37 n speed. Alt. in Fn. 38, 38 and either the fan type is or cooling hours. 39 nerwise check "NIA"): 42, 45 nerwise check "NIA"): 44 noradjacent dwelling unit. contamination sources of. 44 austs directly to the outd d sound level standards: tegrated with range, ditchen volume 47, 48, 49 es es nicially supplied outdoor regular service. 50 ed to prevent bypass. 51 in Footnote 54, 52,53,54	oors and	moets one	- of
7.3.1 Ki  7.3.2 Fill  7.3.2 Fill  7.7.7 Ai  7.7.7 Ai  7.7.7 Ai  7.7.7 Ai  7.7.7 Ai  1.00 Ai	I Controls Rater— Rater	s automatics easured ve in rated \$3 s stem controll or the control or the controll or the control or	ally restrict airflow using a min. rate is ≤ 15 CFM or 15% onces if intermitent and ≤ 1 ser operates the HVAC fan, it ols will reduce the run-time in ERGY STAR certified if used it is expected in the reduce of the run-time in ERGY STAR certified if used if it is expected in air infection in air directly from outdoors is a grade or roof deck; ≥ 10 ft. and ≥ 3 ft. distance from dit hodent, in each kitchen and the following Raterial Continuous Rate  Continuous Rate  Continuous Rate  Continuous Rate  Continuous Rate  S 5 ACH, based on kitchen volume Recommended: ≤ 1 sone  20 CFM  Required: ≤ 1 sone	otorized damper of above design value one if continuous one if Con	during vent. off-cycle ar ue at highest HVAC far ue at highest HVAC far with the control of the	nd occupant override. 37 n speed. Alt. in Fn. 38, 38 and either the fan type is or cooling hours. 39 nerwise check "NIA"): 42, 45 nerwise check "NIA"): 44 noradjacent dwelling unit. contamination sources of. 44 austs directly to the outd d sound level standards: tegrated with range, ditchen volume 47, 48, 49 es es nicially supplied outdoor regular service. 50 ed to prevent bypass. 51 in Footnote 54, 52,53,54	oors and	moets one	of
7.3.1 7.3.2 7.4 Sy 7.5 If EC 7.7 Ai 7.7. 7.7. 7.7. 7.7. 7.7. 9.1 Minimum ain 10. Co 10. Co 10	I Controls Rater— Rater	s automatics easured ve in rated \$3 s stem controll or the control or the controll or the control or	ally restrict airflow using a min. rate is ≤ 15 CFM or 15% onces if intermittent and ≤ 1 ser operates the HVAC fan, it ols will reduce the run-time: ERGY STAR certified if used lete if ventilation air inlet loc in air directly from outdoors is grade or roof deck, ≥ 10 ft. and ≥ 3 ft. distance from ft. it and ≥ 3 ft. distance from ft. it needs to the restrict of the community o	otorized damper of above design value on elif continuous nen HVAC fan op by accounting for as part of the Vation was specifiand not from attic of stretched-stringer exhausts and so the total of stretched-stringer exhausts and so to the total of stretched-stringer exhausts and so the total of stretched-stringer exhausts and so the total of stretched exhaust exhaus	during vent. off-cycle ar ue at highest HVAC far o, or exempted. 39 eration is intermittent a HVAC art of the second of the sec	nd occupant override. 37 n speed. Alt. in Fn. 38, 38 and either the fan type is or cooling hours. 39 nerwise check "NIA"): 42, 45 nerwise check "NIA"): 44 noradjacent dwelling unit. contamination sources of. 44 austs directly to the outd d sound level standards: tegrated with range, ditchen volume 47, 48, 49 es es nicially supplied outdoor regular service. 50 ed to prevent bypass. 51 in Footnote 54, 52,53,54		moets one	of I
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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> □ 🖸

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

	Syste		puipment - Comple	ete Track A - HVAC	C Grading 19 or Track B - HVAC Crede	ential <sup>20</sup>	Must	Rater Verified <sup>2.1</sup>	N/A
de la constant					SI / RESNET / ACCA / ICC 310.				
Track				CONTRACTOR OF STREET,	NET / ACCA / ICC 310.		0	0	
^	And in case of the last of the			THE RESERVE AND PARTY OF THE PA	ACCA / ICC 310. See Footnote 21 for	exemptions. 21		0	0
					quipment matches either of the following			-	
			AC Design Report		☐ Written approval received from			00	
Track B				t by Rater at contra	actor-provided test locations and docu				_
			dernal Static Press		Supply-Side External Static Pressure				
				THE RESERVE OF THE PERSON NAMED IN	sioning Checklist collected, with no ite	the state of the s		0	D
6 Du					tilation, Exhaust, & Pressure Balancin				-
					, or excessive coiled flexible ductwork				To
					np ducts, dedicated return ducts, under			-	-
					+3 Pa with respect to the main body     n alternative compliance option in Foo			00	
5.3 All	supply a	nd return d	ucts in unconditione	ed space, including	connections to trunk ducts, are insula	ated to ≥ R-6. 26		0	
					g two options. Alternative in Footnote				
	Rough-ir	: The grea	ter of ≤ 4 CFM25 p	er 100 sq. ft. of CF	A or ≤ 40 CFM25, with air handler & a ots sealed to finished surface, Rater-v	Ill ducts, building	0	00	0
6.4.2					≤ 80 CFM25, with the air handler & al		-		n
	cavities	used as du	cts, duct boots, & re	egister grilles atop	the finished surface (e.g., drywall, floo	or) installed. 31		00	
8.5 Ra	ter-meas	ured duct le	eakage to outdoors	the greater of ≤ 4	CFM25 per 100 sq. ft. of CFA or ≤ 40	CFM25. 27, 32		00	
. Dw	elling U	nit Mechan	nical Ventilation	Systems ("Vent S	System") 33 & Inlets in Return Duc	t 34			
1.1 Ra	ter-meas	ured ventila	ation rate is within e	ither ± 15 CFM or	±15% of design report value. 35			00	
7.2 A	readily-ac	cessible ve	entilation override o	ontrol installed and	also labeled if its function is not obvio	ous (e.g., a label		0	١.
					on the ventilation equipment). 36	nancio e di nestreso,			-
7.3 Fo	r any out	door air inle	et connected to a di	cted return of the	HVAC system (Complete if present; o	therwise check "N	I/A"): 34		0
7.3.1	Controls	automatica	ally restrict airflow u	sing a motorized d	amper during vent. off-cycle and occu	pant override. 37			
7.3,2	Rater-m	easured ve	nt. rate is ≤ 15 CFN	or 15% above des	sign value at highest HVAC fan speed	J. Alt. in Fn. 38. 38			
.4 Sy	stem fan	rated ≤ 3 s	ones if intermittent	and ≤ 1 sone if con	tinuous, or exempted. 39				-
					fan operation is intermittent and eith ting for HVAC system heating or cool		0	0	
7.6 Ba	throom fa	ans are EN	ERGY STAR certific	ed if used as part o	of the Vent System. 41			0	
7.7 Air	inlet loca	ation (Comp	plete if ventilation a	r inlet location was	specified on design report; otherwise	check "N/A"): 42,4	ià i		0
7.7.	Inlet pu	lls ventilatio	on air directly from o	outdoors and not fro	om attic, crawlspace, garage, or adjac	ent dwelling unit.		0	
	2 Inlet is 2	≥ 2 ft. above	e grade or roof deci	c; ≥ 10 ft. of stretch	ed-string distance from known contar- usts and sources exiting the roof. 44			0	
7.7.	3 Inlet is p	provided wi	th rodent / insect so	reen with ≤ 0.5 in.	mesh.			0	
. Loc	al Mech	anical Ext			, a system is installed that exhausts of airflow and manufacturer-rated sound			meets one	e of
Locat	ion		Continuous Ra		Intermittent Rate 46				
8.1 Kit	chen	Airflow	≥ 5 ACH, based on kitche	n volume 47, 48	≥ 100 CFM and, if not integrate also ≥ 5 ACH based on kitchen		0	00	١.
		Sound	Recommended:	≤ 1 sone	Recommended: ≤ 3 sones	9			
	throom	Airflow	≥ 20 CFM		≥ 50 CFM			00	
).Z De	unroom	Sound	Required: ≤ 1 sc	one	Recommended: ≤ 3 sones		1 "		
. Filt	ration								
					signed so all return and mechanically to facilitate occupant access & regular		0	0	0
2.2 Fil	ter acces	s panel incl	ludes gasket and fit	s snugly against ex	sposed edge of filter when closed to p	revent bypass. 51			
_		on Appliar							-
0. C				echanically drafted	or direct-vented. Alternatives in Foot	tnote 54, 52, 53, 54			
	10.1 Furnaces, boilers, & water heaters are mechanically drafted or direct-vented. Alternatives in Footnote 54. 52, 53, 54. 10.2 Fireplaces are mechanically drafted or direct-vented. Alternatives in Footnote 55, 52, 53, 55.							0	
0.1 F			tion appliances other	er than cooking ran	iges or ovens are located inside the h	ome's pressure	0	0	
0.1 F 0.2 F 0.3 N	lo unvent		in Footnote 57. 52.5					A.c.	*
10.1 F 10.2 F 10.3 N	lo unvent oundary.		in Footnote 57. 52.5		nspection Date <sup>56</sup> :	Rater Initials	Photo	of Rater <sup>3</sup>	
10.1 F 10.2 F 10.3 N b Rater	lo unvent			Rater Pre-Drywall I Rater Final Inspect		Rater Initials:		of Rater <sup>3</sup> of Rater <sup>3</sup>	-

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> □ 🖸
Trater i mai mopeodori bato .	Trator minario.	Thoro or reac



## Beyond 2025: Where Do We Go From Here?

- ZERH and IAP QAQC Implementation
- Increasing Field Presence by RESNET QA Team
- QA for IECC Program
- All QA Reviews Tracked in App or API, summarized in RESNET QA Data Tool (Kibana)
- Multifamily QA Proposal?
- Photo collection for all ratings?
- File Completion Checks Automated?
- Al and Machine Learning- Photo Recognition, Logic Checks, etc
  - Model Numbers Read By Machine
  - Manometer Values Read and Compared to Model

What are your ideas?



## **Quality Assurance of Samplied Ratings**

Expect a short amendment to reconcile method to calculate file QA review requirements (cannot use sample sets)

Note: Addendum 46 Mandatory Compliance Date is 7/01/2025



