



ENERGY STAR Certified Homes, Version 3 (Rev. 07) 2015 Rater Quality Assurance Checklist

Home Address: _____		City: _____		State: _____		Zip Code: _____			
Action Items / Summary of QA						Yes	No		
If any Item marked "Must Correct," an action summary document shall be attached.						<input type="checkbox"/>	<input type="checkbox"/>		
Thermal Enclosure System Rater Checklist									
2. Quality-Installed Insulation						Passed	Must Correct	Not Visible	N/A
2.1 Ceiling, wall, floor, and slab insulation levels shall comply with one of the following options:									
2.1.1 Meet or exceed 2009 IECC levels OR ;						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.1.2 Achieve $\leq 133\%$ of the total UA resulting from the U-factors in 2009 IECC Table 402.1.3, excluding fenestration and per guidance in Footnote 3d, AND home shall achieve $\leq 50\%$ of the infiltration rate in Exhibit 1 of the National Program Requirements						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.2 All ceiling, wall, floor, and slab insulation shall achieve RESNET-defined Grade I installation or, alternatively, Grade II for surfaces that contain a layer of continuous, air impermeable insulation $\geq R-3$ in Climate Zones 1 to 4, $\geq R-5$ in Climate Zones 5 to 8						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Fully-Aligned Air Barriers									
3.1.3 Air barrier fully aligned with the insulation at insulated Attic knee walls. At exterior surface of walls in all climate zones; and also at interior surface of walls for Climate Zones 4-8						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Reduced Thermal Bridging									
4.1 For insulated ceilings with attic space above (i.e., non-cathedralized), Grade I insulation extends to the inside face of the exterior wall below at these levels: CZ 1-5: $\geq R-21$; CZ 6-8: $\geq R-30$						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.3 Insulation beneath attic platforms (e.g., HVAC platforms, walkways) $\geq R-21$ in CZ 1-5; $\geq R-30$ in CZ 6-8						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Air Sealing									
5.1 Penetrations to unconditioned space fully sealed with solid blocking or flashing as needed and gaps sealed with caulk or foam									
5.1.4 Bathroom and kitchen exhaust fans						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.1.5 Recessed lighting fixtures adjacent to unconditioned space ICAT labeled and fully gasketed. Also, if in insulated ceiling without attic above, exterior surface of fixture insulated to $\geq R-10$ in CZ 4 and higher to minimize condensation potential.						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.1.6 Light tubes adjacent to unconditioned space include lens separating unconditioned and conditioned space and are fully gasketed						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.3 Other openings									
5.3.1 Doors adjacent to unconditioned space (e.g., attics, garages, basements) or ambient conditions made substantially air-tight with weatherstripping or equivalent gasket						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.3.2 Attic access panels and drop-down stairs equipped with a durable $\geq R-10$ insulated cover that is gasketed (i.e., not caulked) to produce continuous air seal when occupant is not accessing the attic						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.3.3 Whole-house fans equipped with a durable $\geq R-10$ insulated cover that is gasketed and either installed on the house side or mechanically operated						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HVAC System Quality Installation Rater Checklist									
1. Review of HVAC System Quality Installation Contractor Checklist									
1.1 HVAC System Quality Installation Contractor Checklist collected for records, with no items left blank.						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.2 Review the following parameters related to system cooling design from the HVAC Contractor Checklist (Contractor Checklist Item # indicated in parenthesis):									
1.2.3 Number of occupants (2.6) is within ± 2 occupants in rated home						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.2.4 Conditioned floor area (2.7) is within $\pm 10\%$ of conditioned floor area of rated home						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.2.5 Window area (2.8) is within $\pm 10\%$ of calculated window area of rated home						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.2.6 Predominant window SHGC (2.9) is within 0.1 of predominant value in rated home						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Duct Quality Installation - Applies to All Heating, Cooling, Ventilation, Exhaust, and Pressure Balancing Ducts						Passed	Must Correct	Not Visible	N/A
2.1 Connections and routing of ductwork completed without kinks or sharp bends.						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.2 No excessive coiled or looped flexible ductwork.						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.4 Flexible ducts supported at intervals as recommended by mfr. but at a distance ≤ 5 ft.						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.8 Bedrooms pressure-balanced using any combination of transfer grills, jump ducts, dedicated return ducts, and / or undercut doors to either: a) provide 1 sq. in. of free area opening per 1 CFM of supply air, as reported on the contractor-provided balancing report; or b) achieve a Rater-measured pressure differential ≤ 3 Pa with respect to the main body of the house when all bedroom doors are closed and all air handlers are operating						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Duct Insulation - Applies to All Heating, Cooling, Supply Ventilation, and Pressure Balancing Ducts									
3.1 All connections to trunk ducts in unconditioned space are insulated.						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.2 <i>Prescriptive Path:</i> Supply ducts in unconditioned attic have insulation $\geq R-8$ <i>Performance Path:</i> Supply ducts in unconditioned attic have insulation $\geq R-6$.						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.3 All other supply ducts and all return ducts in unconditioned space have insulation $\geq R-6$.						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Duct Leakage - Applies to All Heating, Cooling, and Balanced Ventilation Ducts									
4.1 Total Rater-measured duct leakage meets one of the following two options:						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.1.1 <u>Rough-in:</u> ≤ 4 CFM25 per 100 sq. ft. of CFA with air handler and all ductwork, building cavities used as ductwork, & duct boots installed. In addition, <u>all</u> duct boots sealed to finished surface, Rater-verified at final.						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



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4.1.2 Final: ≤ 8 CFM25 per 100 sq. ft. of CFA with the air handler and all ductwork, building cavities used as ductwork, duct boots, & register grilles atop the finished surface (e.g., drywall, flooring) installed.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.2 Rater-measured duct leakage to outdoors ≤ 4 CFM25 per 100 sq. ft. of conditioned floor area.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Ventilation Air Inlets & Ventilation Source (Ventilation air inlets that are only visible via rooftop access are exempted from this Section)						
7.1 All ventilation air inlets located ≥ 10 ft. of stretched-string distance from known contamination sources such as stack, vent, exhaust hood, or vehicle exhaust. Exception: ventilation air inlets in the wall ≥ 3 ft. from dryer exhausts and contamination sources exiting through the roof.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.4 Ventilation air comes directly from outdoors, not from adjacent dwelling units, garages, crawlspaces, or attics.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Local Mechanical Exhaust						
In each kitchen and bathroom, a system shall be installed that exhausts directly to the outdoors and meets one of the following Rater-measured airflow standards:						
Location	Continuous Rate	Intermittent Rate				
8.1 Kitchen	≥ 5 ACH, based on kitchen volume	≥ 100 CFM and, if not integrated with range, also ≥ 5 ACH based on kitchen volume	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.2 Bathroom	≥ 20 CFM	≥ 50 CFM	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Combustion Appliances						
10.1 Furnaces, boilers, and water heaters located within the home's pressure boundary are mechanically drafted or direct-vented. As an exception, naturally drafted equipment is allowed in Climate Zones 1-3. For naturally drafted furnaces, boilers, and water heaters, the Rater has followed RESNET or BPI combustion safety test procedures and met the selected standard's limits for depressurization, spillage, draft pressure, and CO concentration in ambient air, as well as a CO concentration in the flue of ≤ 25 ppm.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10.3 If unvented combustion appliances other than cooking ranges or ovens are located inside the home's pressure boundary, the Rater has operated the appliance for at least 10 minutes and verified that the ambient CO level does not exceed 35 ppm.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Filtration						
11.1 At least one MERV 6 or higher filter installed in each ducted mechanical system.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11.2 All return air and mechanically supplied outdoor air pass through filter prior to conditioning.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11.3 Filter located and installed so as to facilitate access and regular service by the owner.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11.4 Filter access panel includes gasket or comparable sealing mechanism and fits snugly against the exposed edge of filter when closed to prevent bypass.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

QA Designee: _____ Rater RTIN #: _____

Status of home at time of inspection (e.g., under construction, occupied) : _____ Date of Inspection: _____

Rater Company Name: _____

Rater Name: _____ Rater RTIN #: _____ Rater Pre-Drywall Inspection Date: _____

Rater Name: _____ Rater RTIN #: _____ Rater Final Inspection Date: _____

Note: Additional checklist items may be inspected for quality insurance and included in the additional checklist items report.



ENERGY STAR Certified Homes, Version 3 (Rev. 07) Rater Quality Assurance Checklist Additional Checklist Items Report

Additional Checklist Items - Use this space to list additional Items reviewed (attach additional pages, if needed)

Checklist Name	Item #	Notes	Passed	Must Correct	Not Visible	N/A
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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