ENERGY STAR Single-Family New Homes Quality Control and Certification Review Checklists Version 3.1 / 3.2 / 3.3 (Rev. 14)

This document provides instructions and checklists to assist quality control reviewers with the following quality assurance / quality control activities related to ENERGY STAR Single-Family New Homes (SFNH) program requirements:

- File Review Checklist (Page 1)
- Field Evaluation Checklist (Page 7)
- Certification Review Checklist (Page 8)

This Revision of the document is mandatory for homes certified using Revision 14 of the ENERGY STAR SFNH program. For homes certified using earlier Revisions, quality control and/or certification reviews may be accomplished using the corresponding prior revision of this document, which can be found in the Archives.

ENERGY STAR Single-Family New Homes
File Review Checklist, Version 3.1 / 3.2 / 3.3 (Rev. 14)

The purpose of file review is to verify that the ENERGY STAR checklists, supporting documentation, and energy model are complete and consistent with applicable program requirements.

File Review Instructions

- File review shall be performed on a random selection of homes submitted for ENERGY STAR certification, in accordance with selection rates and procedures of the Home Certification Organization (HCO). [1]
- For each selected home, complete a copy of the ENERGY STAR File Review Checklist below, as well as the HCO's quality control checklist covering reference standards (e.g., ANSI / RESNET / ICC 301).
- File review may be performed in its entirety, or divided into two phases with the following scopes and deadlines:
  - Phase 1 consists of the ENERGY STAR File Review checklist, below, and should occur as soon as possible following submittal. For Revision 14, Phase 1 file review must occur by the end of the calendar quarter immediately following the quarter in which the certification was issued, or earlier if required by the HCO.
  - Phase 2 consists of the HCO's checklist covering the full energy model and reference standards and must occur by the end of the calendar quarter immediately following the quarter in which the certification was issued, or earlier if required by the HCO.
- Additional items may be reviewed at the reviewer's discretion.
- Items found to be out of compliance shall be corrected. If correction is not possible, the home cannot be certified or the home's certification is required to be withdrawn (please contact the HCO for guidance). [1]

ENERGY STAR Single-Family New Homes
File Review Checklist, Version 3.1 / 3.2 / 3.3 (Rev. 14)

Home Address: _____ City: _____ State: _____ Zip Code: _____

Program Version and Rev.: ☐ SFNH National Version 3.1 ☐ SFNH National Version 3.2 ☐ SFNH National Version 3.3
☐ SFNH Florida Version 3.1 ☐ SFNH OR & WA Version 3.2
☐ SFNH California Version 3.3 ☐ SFNH California Version 3.4 ☐ SFNH California Version 3.5
Revision: _____ Permit Date: _____

File Review Reviewer: _____
Date of Phase 1 Review: _____ ☐ Complete (*Scope: This checklist*)
Date of Phase 2 Review: _____ ☐ Complete (*Scope: HCO's reference standard quality control checklist, with ERI of the home meeting or exceeding the ENERGY STAR ERI Target*)

Original Rating Energy Rating Company: _____
Rater of Record: _____ Rater ID #: _____
Design Review: Rater (or equivalent): _____ Rater ID #: _____ Date: _____
Pre-Drywall Inspection: Rater (or equivalent): _____ Rater ID #: _____ Date: _____
Final Inspection: Rater (or equivalent): _____ Rater ID #: _____ Date: _____

Action Items / Summary of QC	**Yes**	**No**	**N/A**
For each Item marked "No", reviewer has attached documentation of the issue and the corrections made.	☐	-	☐
Documentation Collection – Prepare a QA data file that includes the energy model, program documentation (e.g., ENERGY STAR checklists), photo documentation, and test results.	**Yes**	**No**	**N/A**
Energy model collected.	☐	☐	-
National Rater Design Review Checklist and supporting documentation collected, with no applicable Items left blank, and using the expected document Revision.	☐	☐	-
Documentation that builder has an ENERGY STAR partnership agreement.	☐	☐	-
Documentation that Rater has an ENERGY STAR partnership agreement.	☐	☐	-
Documentation that Rater completed EPA-recognized training and is credentialed by an HCO.	☐	☐	-
If Track A – HVAC Grading was pursued:			
HVAC design report compliant with ANSI / RESNET / ACCA / ICC Std. 310, and the National HVAC Design Supplement to Std. 310 for Dwelling & Units, collected, with no applicable Items left blank.	☐	☐	☐
Documentation that Rater has verified ANSI / RESNET / ACCA / ICC Std. 310 Tasks 1-5 (design review and testing), such as a completed copy of the Standard 310 Data Tool.	☐	☐	☐
If Track B – HVAC Credential was pursued:			
ENERGY STAR National HVAC Design Report collected, with no applicable Items left blank.	☐	☐	☐
Documentation that HVAC contractor held required credential at the time of certification, unless all equipment is an exempted type, in which case check: ☐ Exempted	☐	☐	☐
National Rater Field Checklist and supporting documentation collected, with no Items left blank or marked Must Correct, and using the expected document Revision.	☐	☐	-
List of any exemptions or alternatives used by the Rater.	☐	☐	☐
Per 5b.1, written approval from designer collected if installed models do not match National HVAC Design Report.	☐	☐	☐
Per 7.7, if smaller distance is used for inlet and outlet of balanced ventilation system per footnote, manufacturer's instructions collected indicating that the smaller distance may be used.	☐	☐	☐
Rater name, Rater inspection dates and Rater initials are recorded.	☐	☐	-
If any Builder Verified Items are used, builder employee, builder inspection date and builder initials are recorded.	☐	☐	☐
No more than five Builder Verified Items used and application appears consistent with applicable square footage or quantity limitations detailed in Footnote 1 (for example, "Pre-rock + 50" or "5 penetrations").	☐	☐	☐
On-site photos and test results collected.	☐	☐	-
Required photos and test results for Items in the National Rater Field Checklist, where indicated by a camera icon (📷) next to a "Rater Verified" checkbox. [2]	☐	☐	-
Geo-tagged and time-stamped photos of the Rater(s) in front of the dwelling unit at each inspection.	☐	☐	-
Eligibility Requirements – Check that the home is eligible for the ENERGY STAR program requirements that were applied. For details, refer to the Eligibility Requirements section of the applicable Program Requirements document and www.energystar.gov/SFNHVersions.	**Yes**	**No**	**N/A**
The home is a site-built or modular detached Dwelling (e.g., single-family home or duplex) or Townhouse and, therefore, eligible for the ENERGY STAR Single-Family New Homes (SFNH) program.	☐	☐	-
Based on location and permit date, the home is eligible for the SFNH program requirements (including Version and Revision) to which it has been, or is being, certified.	☐	☐	-

ENERGY STAR Single-Family New Homes
File Review Checklist, Version 3.1 / 3.2 / 3.3 (Rev. 14)

Review of National Rater Design Review Checklist (NRDRC) – Check ENERGY STAR program requirements related to HVAC design review (other NRDRC Items are addressed below in the energy model review).	Yes	No	N/A
If Track A – HVAC Grading was pursued:			
3a.3 Cooling sizing % is within the cooling sizing limit selected by the HVAC designer.	☐	☐	☐
HCO quality control checklist covering ANSI / RESNET / ACCA / ICC 310 HVAC Design Report completed.	☐	☐	☐
If Track B – HVAC Credential was pursued:			
3b.2 HVAC Design Report reviewed by Rater for the following parameters (National HVAC Design Report Item # in parenthesis):			
3b.2.1 Cooling season and heating season outdoor design temperatures used in loads (3.3) are within the limits defined at energystar.gov/hvacdesigntemps for the State and County, or US Territory where the home is built or the designer has provided an allowance from EPA to use alternative values.	☐	☐	☐
3b.2.2 Number of occupants used in loads (3.4) is within ± 2 of the home being reviewed.	☐	☐	☐
3b.2.3 Conditioned floor area used in loads (3.5) is between 100 sq. ft. smaller and 300 sq. ft. larger than the home being reviewed.	☐	☐	☐
3b.2.4 Window area used in loads (3.6) is between 15 sq. ft. smaller and 60 sq. ft. larger than the home being reviewed or, for homes with > 500 sq. ft. of window area, between 3% smaller and 12% larger.	☐	☐	☐
3b.2.5 Predominant window SHGC used in loads (3.7) is within 0.1 of predominant value in the home being reviewed.	☐	☐	☐
3b.2.6 Sensible, latent & total heat gain are documented (3.10 – 3.12) for the orientation of the home being reviewed.	☐	☐	☐
3b.2.7 The difference between the maximum total heat gain across orientations and that of the orientation of the home being reviewed (3.13) is ≤ 6 kBtuh. [3]	☐	☐	☐
3b.2.8 Cooling sizing % (4.13) is within the cooling sizing limit (4.15) selected by the HVAC designer.	☐	☐	☐
Review of Select Energy Model Inputs – Check the energy model for consistency with applicable ENERGY STAR program requirements and, where indicated by a camera icon (📷), on-site photos and/or test results. [2]	**Yes**	**No**	**N/A**
Program selection input matches the SFNH program requirements (including Version and Revision) pursued.	☐	☐	-
ERI of the home meets or exceeds the ENERGY STAR ERI Target for the program Version pursued.	☐	☐	-
Any warning or error messages reported by the energy rating software are reviewed and explained. If none, mark "N/A".	☐	☐	☐
Energy model is consistent with the National Rater Design Review Checklist:			
2. High-Performance Fenestration & Insulation			
2.1 Modeled total building thermal envelope achieves the following: [3, 4] For all Versions except those noted below: ≤ 100% of the total UA per 2009 IECC Table 402.1.3 For National Version 3.2: ≤ 100% of the total UA per 2021 IECC Table 402.1.2 For National Version 3.3: In CZ 1-2: ≤ 108% of the total TC per 2024 IECC Table 402.1.2 In CZ 3-8: ≤ 115% of the total TC per 2024 IECC Table 402.1.2	☐	☐	-
2.2 In CZ 1-3, 4A, and 4B, modeled windows, skylights, and floors that are ≥ 50% glazed achieve the following: [3, 4] For all Versions except those noted below: Area-weighted average SHGC ≤ 2009 IECC Table 402.1.1 For National Version 3.2: Area-weighted average SHGC ≤ 2021 IECC Table 402.1.2 For National Version 3.3: Area-weighted average SHGC ≤ 2024 IECC Table 402.1.2	☐	☐	☐
Energy model is consistent with the National Rater Field Checklist:			
1. High-Performance Fenestration & Insulation			
📷 1.1 & 1.2 Modeled insulation matches photo and achieves Grade I install. per ANSI / RESNET / ICC Std. 301. [3]	☐	☐	-
3. Reduced Thermal Bridging – Reduced thermal bridging strategies are not mandatory but must be accurately assessed per Std. 301. Check that the following details are modeled within credible ranges, free from obvious deficiencies.			
3.1 Modeled ceilings reflect assessment of R-value and install quality at the attic edge. [3]	☐	☐	-
3.2 Modeled ceilings reflect assessment of R-value and install quality beneath attic platforms and walkways. [3]	☐	☐	-
3.3 Modeled ceilings reflect assessment of insulated covers at attic access panels, drop-down stairs, & whole-house fans.	☐	☐	-
3.4 Modeled above-grade walls reflect assessment of advanced framing (or lack thereof). [3]	☐	☐	-
3.5 Modeled slabs on grade reflect assessment of insulation where walls separate conditioned from unconditioned space.	☐	☐	☐
4. Air Sealing			
4.2 Modeled air leakage matches test result and meets one of the following: [3]			
📷 4.2.1 For all Versions except those noted below: ≤ 4.5 ACH50 For National v3.2 and CA v3.4: ≤ 4.0 ACH50 For National v3.3 and CA v3.5: ≤ 3.5 ACH50	☐	☐	☐
📷 4.2.2 As an alternative, for a Dwelling with ≤ 1,500 sq. ft. of CFA, a Townhouse, or an attached Dwelling Unit, modeled air leakage matches test result and is ≤ 0.30 CFM50 per sq ft. of Dwelling Unit Compartmentalization Boundary area.	☐	☐	☐

Energy model is consistent with the National Rater Field Checklist (Continued):				
5. Heating & Cooling Equipment - Complete the Track (Track A - HVAC Grading or Track B - HVAC Credential) used originally.				
Track A	Check the 310 Data Tool (or equivalent) for reasonableness and consistency with the energy model.	☐	☐	☐
	Based on inspection notes, HVAC make & model match design specifications, per Std. 310 Section 6.2.2.1.	☐	☐	☐
	📷 5a.1 Modeled blower fan volumetric airflow matches test result and is Grade I or II per Std. 310.	☐	☐	☐
	5a.2 Modeled blower fan watt draw is Grade I or II per Std. 310.	☐	☐	☐
	5a.3 Modeled refrigerant charge is Grade I per Std. 310.	☐	☐	☐
Track B	📷 5b.1 Photo of HVAC make & model matches either the National HVAC Design Report or written approval from designer, according to the checkbox selected by the Rater. [3]	☐	☐	☐
6. Duct Quality Installation				
6.3 Modeled supply and return ducts in unconditioned space are insulated to ≥ R-6. [3]		☐	☐	☐
6.4 Modeled total duct leakage matches test result and meets one of the following two options.				
📷 6.4.1 Rough-in: The greater of ≤ 4 CFM25 per 100 sq. ft. of CFA or ≤ 40 CFM; or, for a duct system with three or more returns, ≤ 6 CFM25 per 100 sq. ft. of CFA or ≤ 60 CFM. [3]		☐	☐	☐
📷 6.4.2 Final: The greater of ≤ 8 CFM25 per 100 sq. ft. of CFA or ≤ 80 CFM; or, for a duct system with three or more returns, ≤ 12 CFM25 per 100 sq. ft. of CFA or ≤ 120 CFM. [3]		☐	☐	☐
📷 6.5 Modeled duct leakage to outdoors matches test result and meets the greater of ≤ 4 CFM25 per 100 sq. ft. of CFA or ≤ 40 CFM25. [3]		☐	☐	☐
7. Dwelling Unit Mechanical Ventilation System ("Vent System") & Inlets in Return Duct				
📷 7.1 Modeled ventilation rate matches test result and is within ± 15 CFM or ± 15% of design report value (2.3).		☐	☐	-
7.3.1 For any modeled Vent System that includes an outdoor air inlet connected to a ducted return of the HVAC system (e.g., a CFIS system), model reflects "automatic control of outdoor air" consistent with presence of the required motorized damper.		☐	☐	☐
7.5 If Vent System controller operates the HVAC fan, then modeled 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.		☐	☐	☐
Review of Additional Photos / Test Results per National Rater Field Checklist (NRFC) – Check that photos / test results are consistent with NRFC Items below not already reviewed as part of the energy model above. [2]		**Yes**	**No**	**N/A**
2. Fully-Aligned Air Barriers – At each insulated location below, a photo shows a complete air barrier that is fully aligned. [3]				
📷 2.1 Dropped ceilings / soffits below unconditioned attics, and all other ceilings. [3]		☐	☐	☐
📷 2.2 Walls behind showers, tubs, staircases, and fireplaces. [3]		☐	☐	☐
📷 2.3 Attic knee walls and skylight shaft walls. [3]		☐	☐	☐
📷 2.4 Walls adjoining porch roofs or garages. [3]		☐	☐	☐
📷 2.6 Floors above garages, floors above unconditioned basements or crawlspaces, and cantilevered floors. [3]		☐	☐	☐
4. Air Sealing				
📷 4.1.2 Photo shows an attic access panels, drop-down stairs, or whole house fans that are gasketed (i.e., not caulked) or equipped with covers that are gasketed.		☐	☐	☐
📷 4.1.6 Photo shows that walls and/or floor cavities that separate attached garages from occupiable space are sealed.		☐	☐	☐
6. Duct Quality Installation				
📷 6.2 Test results show bedroom pressure differential ≥ -3 Pa and ≤ +3 Pa or, for bedrooms with a design airflow ≥ 150 CFM as reported in item 5.5 of the HVAC Design Report, Rater-measured pressure differential ≥ -5 Pa ≤ 5 Pa. [3]		☐	☐	-
8. Local Mechanical Exhaust				
Test results meet the following airflow standards:				
Location	**Continuous Rate**	**Intermittent Rate**		
📷 8.1 Kitchen	≥ 5 ACH, based on kitchen volume [3]	≥ 100 CFM and, if not integrated with range, also ≥ 5 ACH based on kitchen volume [3]	☐	☐ -
📷 8.2 Bathroom	≥ 20 CFM	≥ 50 CFM	☐	☐ -
Rater Identification Photo Review				
📷 Identification photo shows expected Rater individual(s) in front of the dwelling unit at the pre-drywall and final inspections, with a time stamp matching reported inspection dates, and geo-tag consistent with location of the dwelling unit.		☐	☐	-

Footnotes

1. Home Certification Organizations (HCOs) are independent organizations recognized by EPA to implement an ENERGY STAR certification program for single-family and multifamily homes and apartments using an Energy Rating Index (ERI) compliance path. Learn more and find a current list of HCOs at www.energystar.gov/hco.
2. Where indicated by a camera icon (📷), the Rater is required to capture at least one photo per item during their inspection as a representative example of the installed strategy used to meet the applicable program requirement. For items involving one or more

performance tests (e.g., pressure differential at multiple bedrooms), the Rater must capture a photo of each recorded test result or a report generated by automated software that communicates with the testing device showing the test result. Photos are not required for nonapplicable items marked “N/A.”

At each inspection (i.e., pre-drywall and final), the Rater is required to capture at least one geo-tagged and time-stamped photo of themselves in front of the dwelling unit. It is recommended, but not required, for the other photos to also be geotagged and timestamped.

In addition to the photos and test results specified above, the Rater must capture all photos required by the on-site inspection protocols in Normative Appendix B of ANSI / RESNET / ICC 301, which are to be reviewed via the HCO’s reference standard quality control checklist.

3. This item has been substantively edited for space or has a footnote with an exemption or alternative. Refer to referenced program document for details. When an item is met via an approved exemption or alternative, mark the item as “Yes” and append a note identifying the strategy and policy reference (e.g., footnote number or Policy Record entry).
4. Homes certified using the ENERGY STAR Single-Family New Homes California Program Requirements, Version 3.3 and later are automatically deemed compliant with Items 2.1 and 2.2 of the National Rater Design Review Checklist due to the inability of CEC-approved software to calculate the total thermal envelope UA and in consideration of the rigor of the respective Building Energy Efficiency Standards.

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

The primary purpose of field evaluation is to assess verifiers' skills and knowledge of current policies, procedures, and program requirements. To accomplish this, a QA/QC reviewer independently re-verifies all applicable minimum rated features and ENERGY STAR program requirements in a representative home that is either ENERGY STAR certified or in the process of obtaining ENERGY STAR certification.

Field Evaluation Instructions

- Field evaluation is required annually for all Raters and equivalent designations (such as Rating Field Inspectors) contributing to ENERGY STAR certifications, following the HCO's selection rates and procedures. These evaluations must occur at both the pre-drywall and final construction stages, with minimum rates for each stage dictated by HCO policies. [1]
- Document each field evaluation by completing a standard ENERGY STAR National Rater Field Checklist of the corresponding Revision, as well as filling out the ENERGY STAR Field Evaluation Checklist below.
- Field evaluation may be accomplished via either a witness test or an after-the fact evaluation. In a witness assessment (or "shadow audit"), the Rater performs an inspection in the presence of the reviewer. In an after-the-fact assessment (or "blind QA"), a reviewer retests a home without the original Rater present.
- Homes are to be selected based on availability by the assigned reviewer, with the intent of capturing a representative cross-section of builders, locations, and home types.
- Homes are not permitted to be re-used for multiple ENERGY STAR field evaluations. It is permissible, however, to perform an ENERGY STAR field evaluation at a home also being used for other programs, such as DOE's Energy Efficient New Home.

Footnotes

1. Home Certification Organizations (HCOs) are independent organizations recognized by EPA to implement an ENERGY STAR certification program for single-family and multifamily homes and apartments using an Energy Rating Index (ERI) compliance path. Learn more and find a current list of HCOs at www.energystar.gov/hco.

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

Home Address: _____ City: _____ State: _____ Zip Code: _____

Program Version:
☐ SFNH National Version 3.1 ☐ SFNH National Version 3.2 ☐ SFNH National Version 3.3
☐ SFNH Florida Version 3.1 ☐ SFNH Oregon & Washington Version 3.2
☐ SFNH California Version 3.3 ☐ SFNH California Version 3.4 ☐ SFNH California Version 3.5
Revision: _____

Field Evaluation
Reviewer: _____ Date:_____ ☐ Complete
Rater (or equivalent) Name: _____ Rater ID #: _____
Evaluation Type: ☐ Witness ☐ After-the-fact

National Rater Field Checklist	**Yes**	**No**	**N/A**
National Rater Field Checklist completed by reviewer and attached.	☐	☐	-
For checklist Items marked “N/A,” Rater or RFI’s understanding is verified through discussion and/or Q&A.	☐	☐	-
Reviewer’s findings documented and discussed with Rater or RFI.	☐	☐	-

ENERGY STAR Single-Family New Homes Certification Review Checklist, Version 3.1 / 3.2 / 3.3 (Rev. 14)

The purpose of Certification Review is to determine whether a home should maintain its ENERGY STAR certification in cases where a homeowner has concerns about their home's compliance with program requirements. There are two possible outcomes: (1) the home will maintain its ENERGY STAR certification or (2) the home's ENERGY STAR certification will be withdrawn. Learn more at energystar.gov/partner_resources/residential_new/certification_review.

Certification Review Process

When a Home Certification Organization (HCO) [1] receives an eligible homeowner inquiry, the HCO will initiate a Certification Review of the home and assign it to an appropriate individual according to the HCO's policies. The assigned reviewer shall complete the Certification Review within 40 business days by performing the following steps.

1. **Collect Documentation.** Collect all pertinent documentation using the Document Collection sections of the Quality Control Checklist and Certification Review Supplement Checklist. Inability to collect a required documentation item constitutes a failure, in which case proceed directly to Step 3: preparing the certification review report.
2. **Perform Home Inspection.** Coordinate a time with the homeowner to inspect the home. During that inspection, complete the remainder of the Quality Control Checklist and Certification Review Supplement Checklist based on observations of the current state of the home.
3. **Prepare Certification Review Report.** Prepare a report that includes the completed Certification Review Checklist, documented observations of the home's current state, and a determination of whether the Certification Review passes or fails. Share a copy of the report with the HCO, which will in turn provide a copy to the homeowner.

If the assigned reviewer determines that the Certification Review fails, the ENERGY STAR certification of the home shall be withdrawn.

If the assigned reviewer determines that the Certification Review passes, the ENERGY STAR certification of the home shall be maintained. In that case, the homeowner has the opportunity to appeal the determination. Refer to the HCO's policies for details on the appeals process.

Certification Review Instructions

This document should be used in conjunction with the applicable ENERGY STAR Program Requirements and Mandatory Measures documents (e.g., the National Rater Design Review Checklist, National Rater Field Checklist, and applicable HVAC design and installation documents) to perform a comprehensive assessment of every reviewable requirement, including items that were not raised as an area of concern. To the extent that program requirements that are not listed on this checklist are reviewable in the home, those items shall be assessed and included in the Certification Review Report. Alternatives noted in the applicable Program Requirements or Mandatory Measures documents, such as in footnotes, should be considered where applicable. Where a program revision or Policy Record entry has adjusted a requirement, the current policy may be used, even if it was not in place at the time of original certification.

In general, the benefit of doubt should be given to the original rating unless it is definitively clear that a requirement was not met at time of certification. The assigned reviewer should apply judgment in accounting for normal aging of construction materials over time, such as the settling of blown insulation. For example, for item 4.1.7 of the National Rater Field Checklist, the focus should be on the *presence* of weatherstripping on doors rather than the current *efficacy* of the weatherstripping. The Certification Review Supplement Checklist modifies certain performance test thresholds to account for these types of aging effects. In these cases, the Certification Review Supplement Checklist supersedes the matching Items on the ENERGY STAR Quality Control Checklist, which can be marked as N/A. Homes are eligible for Certification Review only if there have been no significant structural changes to the home since it was built. If such modifications are observed, the assigned reviewer has discretion to suspend the inspection and share documentation of the observed modifications with the HCO in lieu of the Certification Review Report.

If any individual item on the Rater Quality Control Checklist or Certification Review Supplement Checklist is marked as "No", the Certification Review is considered to have failed.

Guidance on Destructive Testing

At the behest of the homeowner, destructive testing may be used to inspect items that would otherwise not be visible. For example, if it were suspected that no insulation was installed in an exterior wall, observation holes could be drilled in the interior gypsum board. The homeowner bears complete responsibility for arranging all demolition and repair for destructive testing that they elect to undertake. Before undertaking destructive testing, it is recommended that homeowners consult with a qualified expert who can use non-invasive methods like infrared imaging to prioritize areas of concern. Demolition work, such as drilling observation holes, must occur in the presence of the assigned reviewer performing the Certification Review. Areas that are exposed outside the presence of the assigned reviewer shall be ignored for the purpose of the Certification Review.

ENERGY STAR Single-Family New Homes
Certification Review Checklist, Version 3.1 / 3.2 / 3.3 (Rev. 14)

Documentation Collection	Yes	No	N/A
Documentation of original rating collected per Documentation Collection section of File Review checklist (above).	☐	☐	-
If Track B – HVAC Credential pursued, HVAC Commissioning Checklist collected, with no applicable Items left blank	☐	☐	☐
Energy Rating File – File is consistent with program requirements, Rater's documentation, and field observations.			
Energy Rating file passes the Home Certification Organization's (HCO's) Certification Review checklist. [1]	☐	☐	-
File Review of Original Rating			
File Review checklist (above) completed based on the original rating documentation.	☐	☐	-

Reinspection / Retesting of National Rater Field Checklist Items	Yes	No	Not Verified	N/A
1. High-Performance Insulation & Fenestration				
1.1 Accessible insulation matches energy model.	☐	☐	☐	☐
1.2 Accessible insulation achieves Grade I install. per ANSI / RESNET / ICC 301. [2]	☐	☐	☐	☐
2. Fully-Aligned Air Barriers				
2.3 At attic knee walls and skylight shaft walls, a complete air barrier provided that is fully aligned at exterior vertical surface of wall insulation in all climate zones; also at interior vertical surface of wall insulation in CZ 4-8.	☐	☐	☐	☐
3. Reduced Thermal Bridging – Reduced thermal bridging strategies are not mandatory. However, the following details must be accurately assessed per ANSI / RESNET / ICC 301.				
3.1 Insulated ceilings assessed at the attic edge for variance in R-value and install quality.	☐	☐	☐	☐
3.2 Insulation assessed beneath attic platforms and walkways for variance in R-value and install quality.	☐	☐	☐	☐
3.3 Attic access panels, drop-down stairs, & whole-house fans assessed for insulated covers.	☐	☐	☐	☐
4. Air Sealing				
4.1 Reviewer has verified each accessible air sealing detail below.				
4.1.1 Visible ducts, flues, shafts, plumbing, piping, wiring, exhaust fans & other penetrations to unconditioned 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.	☐	☐	☐	☐
4.1.7 Doors adjacent to unconditioned space (e.g., attics, garages, basements) or ambient conditions are made substantially air-tight with weatherstripping or equivalent gasket.	☐	☐	☐	☐
4.2 Reviewer-measured air leakage of Dwelling or Dwelling Unit meets one of the following: [3]				
4.2.1 For all Versions except those noted below: ≤ 5.5 ACH50 For National v3.2 and CA v3.4: ≤ 5.0 ACH50 For National v3.3 and CA v3.5: ≤ 4.5 ACH50	☐	☐	☐	☐
4.2.2 As an alternative, for a Dwelling with ≤ 1,500 sq. ft. of CFA, a Townhouse, or an attached Dwelling Unit, modeled air leakage matches test result and is ≤ 0.30 CFM50 per sq ft. of Dwelling Unit Compartmentalization Boundary area.	☐	☐	☐	☐
5. Heating & Cooling Equipment Complete the Track (Track A - HVAC Grading or Track B - HVAC Credential) used originally.				
Track A HVAC manufacturer & model number on installed equipment match expectations from File Review above.	☐	☐	☐	☐
Track A 5a.1 Blower fan volumetric airflow is re-measured as Grade I or II per ANSI / RESNET / ACCA / ICC 310.	☐	☐	☐	☐
Track A 5a.2 Watt draw is re-measured per ANSI / RESNET / ACCA / ICC 310. No pass/fail threshold applies in a Certification Review, but the re-measured value must be updated in the energy model. [3]	☐	☐	☐	☐
Track A 5a.3 Recommended but not required: Refrigerant charge is re-measured (e.g., using non-invasive method per ANSI / RESNET / ACCA / ICC 310) or checked by a licensed contractor. [3]	☐	☐	☐	☐
Track B HVAC manufacturer & model number on installed equipment match expectations from File Review above.	☐	☐	☐	☐
6. Duct Quality Installation				
6.1 Visible ductwork installed without kinks, sharp bends, compressions, or excessive coiled flexible ductwork.	☐	☐	☐	☐
6.2 Reviewer-measured bedroom pressure differential meets ≥ -5 Pa and ≤ 5 Pa or, for bedrooms with a design airflow ≥ 150 CFM, ≥ -8 Pa and ≤ 8 Pa. [3]	☐	☐	☐	-
6.3 Visible supply and return ducts in unconditioned space, including connections to trunk ducts, insulated to ≥ R-6.	☐	☐	☐	☐
6.4 Reviewer-measured total duct leakage is permitted to meet ≤ 12 CFM25 per 100 sq. ft. of CFA or ≤ 120 CFM or, for a duct system with three or more returns, ≤ 16 CFM25 per 100 sq. ft. of CFA or ≤ 180 CFM. [3]	☐	☐	☐	☐
6.5 Reviewer-measured duct leakage to outdoors is permitted to meet ≤ 6 CFM25 per 100 sq. ft. of CFA or ≤ 60 CFM25. [3]	☐	☐	☐	☐

ENERGY STAR Single-Family New Homes Certification Review Checklist, Version 3.1 / 3.2 / 3.3 (Rev. 14)

7. Whole-House Mechanical Ventilation System					
7.1 Reviewer-measured ventilation rate is permitted to be within ± 25 CFM or ± 25% of design value (2.3). [3]			☐	☐	☐	-
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).			☐	☐	☐	-
7.3 For any outdoor air inlet connected to a ducted return of the HVAC system (Complete if present; otherwise check "N/A"):						☐
7.3.1 Controls automatically restrict airflow during ventilation off-cycle and occupant override. If the controls are *capable* of these criteria, it is permissible for the settings to differ at the time of certification review. [2, 3]			☐	☐	☐	-
7.3.2 Reviewer-measured vent. rate is ≤ 15 CFM or 15% above design value at highest HVAC fan speed.			☐	☐	☐	-
7.4 System fan rated ≤ 3 sones if intermittent and ≤ 1 sone if continuous, or exempted.			☐	☐	☐	-
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. If the controls are *capable* of these criteria, it is permissible for the control's settings to differ at the time of certification review. [2, 3]			☐	☐	☐	☐
7.6 Bathroom fans are ENERGY STAR certified if used as part of the Vent System.			☐	☐	☐	☐
7.7 Air inlet location (Complete if ventilation air inlet location was specified on design report; otherwise check "N/A"):						☐
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.			☐	☐	☐	-
7.7.3 Inlet is provided with rodent / insect screen with ≤ 0.5 in. mesh.			☐	☐	☐	-
8. Local Mechanical Exhaust						
Kitchen & bathroom exhausts systems are permitted to meet one of the following Reviewer-measured airflow standards: [3]						
Location	**Continuous Rate**	**Intermittent Rate**				
8.1 Kitchen	≥ 3 ACH, based on kitchen volume [2]	≥ 60 CFM and, if not integrated with range, also ≥ 3 ACH based on kitchen volume [2]	☐	☐	☐	-
8.2 Bathroom	≥ 12 CFM	≥ 30 CFM	☐	☐	☐	-
9. Filtration						
9.1 Filter location capable of accepting a MERV 6 filter installed in each ducted mechanical system in a location where all return and mechanically supplied outdoor air passes through filter(s) prior to conditioning, and that facilitates access and regular service by the occupant. [2, 3]			☐	☐	☐	☐
9.2 Filter access panel includes gasket or comparable sealing mechanism and fits snugly against the exposed edge of filter when closed to prevent bypass.			☐	☐	☐	☐
10. Combustion Appliances						
10.1 Furnaces, boilers, and water heaters located within the home's pressure boundary are mechanically drafted or direct-vented.			☐	☐	☐	☐
10.2 Fireplaces located within the home's pressure boundary are mechanically drafted or direct-vented.			☐	☐	☐	☐
10.3 No unvented combustion appliances other than cooking ranges or ovens are located inside the home's pressure boundary.			☐	☐	☐	☐
Optional: Destructive testing						
If homeowner elects to perform destructive testing according to the guidance above, reviewer has documented observations of any applicable requirements from the National Rater Field Checklist.			☐	☐	☐	☐

Footnotes

1. Home Certification Organizations (HCOs) are independent organizations recognized by EPA to implement an ENERGY STAR certification program for single-family and multifamily homes and apartments using an Energy Rating Index (ERI) compliance path. Learn more and find a current list of HCOs at www.energystar.gov/hco.
2. This item has been edited for space or has a footnote with an exemption or alternative. Refer to referenced program document for full details. When an item is met via an approved exemption or alternative, mark the item as "Yes" and append a note identifying the strategy and policy reference (e.g., footnote number or Policy Record entry).
3. This requirement is modified from the original program requirement to be applicable in the context of a finished home.