





Version 1 to Version 2 and published a parallel framework titled the WaterSense Home Certification System, Version 2.0 (February 2021), which includes similar Home Certification Organizations (HCOs) that are recognized by EPA to implement the certification and labeling of homes that meet WaterSense program requirements. While the WaterSense certification system has unique guidelines for the establishment of water efficiency criteria, the overarching framework is similar, creating the scope for HCOs<sup>1</sup> to oversee certification of both single-family and multifamily residences, including both new and existing construction.

## **1.2 Summary Intent for Indoor airPLUS Version 2 Framework**

The development of a similar oversight structure offers Indoor airPLUS an improved framework to support the direction and increased market adoption of the Indoor airPLUS program, given that Version 2 will contain new specifications with significant updates. As in Version 1, Indoor airPLUS will include certification opportunities for new and substantially rehabilitated homes and apartments in residential buildings of all heights. EPA will also introduce two certification pathways or “tiers”. A base Certification tier would focus specifically on IAQ fundamentals without other pre-requisite certifications or labels. A second pathway would continue to maintain ENERGY STAR certification as a pre-requisite to earning EPA’s highest certification for IAQ—the Indoor airPLUS “Gold” label. The base Indoor airPLUS “Certification” tier serves as both a stepping stone for builders/developers entering the high performance home market with a primary interest in marketing healthier home improvements, as well as an improved opportunity for participation in the sectors of affordable housing and gut-rehabilitation. EPA expects current leading Indoor airPLUS partners to continue to strive for the improved energy-efficiency and IAQ upgrades included in the “Gold” tier, while also defining a set of IAQ-specific measures in a base “Certification” tier that will encourage new builders and developers to take cost-effective steps toward improved health protections in a diverse housing stock. With these changes, EPA’s Indoor Environments Division intends to increase program participation in Indoor airPLUS and ENERGY STAR residential programs in both the affordable housing sector and market-rate homes.

## **1.3 Introduction of Certification System**

EPA is committed to improving implementation and consistency in its approach to the certification process across its residential building labeling programs: Indoor airPLUS, ENERGY STAR, and WaterSense. The following elements are key themes in EPA’s ENERGY STAR and WaterSense certification systems and core requirements for each certification organization, which EPA intends to include in the Indoor airPLUS Certification System:

- Independent oversight

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<sup>1</sup> Indoor airPLUS HCOs are not limited to the current list of HCOs/MROs approved by EPA. See details on page 5.



credentialing, oversight, and quality assurance of individuals that verify existing or new construction homes and apartments to earn Indoor airPLUS certification, hereafter referred to as ‘Verifiers.’

An organization seeking to become an HCO must submit an ‘Application for Recognition’ to EPA that demonstrates that it meets the program’s eligibility criteria and has the capability, competencies, and proper controls to implement an Indoor airPLUS certification program in accordance with the *Indoor airPLUS Certification System* and the *Indoor airPLUS Certification Protocol*. EPA will evaluate each Application for Recognition and will either approve an HCO to operate an Indoor airPLUS certification program or provide written feedback to the applicant noting where the application did not meet EPA requirements, and the opportunity to discuss identified issues with EPA. Applicants will be given 90 days to amend their application and resubmit for review. If the applicant does not resubmit within 90 days, the application may be terminated. Further, if EPA determines that the resubmitted application does not meet its requirements, the application may also be terminated.

In the context of this Indoor airPLUS Certification System, EPA’s recognition of an HCO relates solely and specifically to the Indoor airPLUS certification programs. While an ENERGY STAR HCO provides oversight only for the ENERGY STAR Single-Family New Homes program and multifamily buildings that are certified using an Energy Rating Index (ERI) approach in the ENERGY STAR Multifamily New Construction program, an HCO in the context of the Indoor airPLUS Certification System provides oversight for one or more of the Indoor airPLUS certification tiers. While a separate designation, Multifamily Review Organization (“MRO”), was required to provide oversight for non-ERI certification approaches in ENERGY STAR Multifamily New Construction, a separate MRO designation is not necessary for Indoor airPLUS. While currently recognized HCOs or MROs are eligible to apply as an Indoor airPLUS HCO, it is not a requirement to be a currently recognized HCO for another EPA residential labeling program.

Activities undertaken by HCOs are not intended as services provided to the federal government. HCOs are expected to be market-based and may not submit claims for compensation to EPA or any other federal agency for their activities related to fulfilling the required roles and responsibilities of recognized HCOs. Recognized HCOs may implement participation or certification fee structures, or seek funding from other sources, to support their Indoor airPLUS certification program.

## 2.0 Effective Date

The *Indoor airPLUS Certification System* will be posted for public comment and stakeholder feedback. Public input will be reviewed by EPA for potential refinements to the Certification System and Certification Protocol, at which time EPA will publish a final version and set an effective date for implementation.

## 3.0 HCO Eligibility Requirements

To be eligible for recognition by EPA as an Indoor airPLUS HCO, an organization is required to demonstrate the following:

### 3.1. Legal Responsibility

The organization is required to be a legal entity, or defined part of a legal entity, that can be held responsible for all activities related to its Indoor airPLUS certification program.

### 3.2. Independent Governance

The organization is required to be independent, and all certification decisions are required to be independent from the influence of (1) homeowners, builders, and developers whose homes and apartments would be certified and (2) other entities directly involved in the design, renovation, or construction of the building to be certified through its Indoor airPLUS certification program. In addition, the organization is required to maintain an independent governance mechanism to ensure that its policies and activities related to its Indoor airPLUS certification program comply with the requirements of the *Indoor airPLUS Certification System* and the *Indoor airPLUS Certification Protocol* and support the integrity of the Indoor airPLUS program. Examples of such mechanisms include, but are not limited to maintaining a Board of Directors or Independent Governance Committee with the following attributes:

- Specific responsibility for safeguarding the impartiality and integrity of the HCO's Indoor airPLUS certification program;
- Authority to review the HCO's policies, procedures and actions;
- A balanced representation of significantly interested parties such as builders, conformity assessment experts, Verifiers, designees, and representatives of trade associations, such that no single interest predominates;
- Access to all information necessary to fulfill its functions;
- Have the right to independently inform EPA if the HCO does not follow the input of this mechanism.

Accreditation to the ISO/IEC 17065 governing standard, “Conformity Assessment: Requirements for bodies certifying products, processes, and services,” is also considered to meet the independent governance requirement through section 5.2 of that standard, “Mechanism for safeguarding impartiality.”

### 3.3. Scope of Operations

The organization is required to have the ability to implement its Indoor airPLUS certification program through the following:

- Having access to a broad network of qualified Verifiers; and
- Maintaining a quality assurance and oversight mechanism for Verifiers that ensures consistency in application of the Indoor airPLUS specifications, appropriate to the regions served by the Verifiers.

### 3.4. Staffing and Competency

The organization is required to employ, or have access to, sufficient personnel with the competencies necessary to meet all EPA requirements related to the *Indoor airPLUS Certification System* and the *Indoor airPLUS Certification Protocol*. This may include on-staff personnel, as well as designees<sup>2</sup> working under a contract or other formal agreement that places their activities under the legal responsibility of the HCO.

## 4.0 HCO Policies

An HCO is required to maintain documented formal policies related to:

### 4.1. Business Code of Ethics

The HCO is required to maintain a business code of ethics for itself, its Verifiers, and its designees (if used).

### 4.2. Impartiality and Objectivity

The HCO is required to maintain conflict of interest (COI) policies to identify and mitigate risks to impartiality of the HCO, its Verifiers, and its designees. These policies must address COI that pertain to both the individuals and organizations involved and how it is related to the Indoor airPLUS certification process.

Where designees are used, the HCO must maintain a specific COI policy for designees. COI policies are required to include disclosure of existing or potential COI and steps to resolve the conflicts. In addition to any other conflicts identified, these policies must address at minimum, the following conflicts:

- Conflicts between the HCO and its builder/developer clients;

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<sup>2</sup> See Section 6.0 for additional information about the use of designees.

- Conflicts between individuals involved in the certification process and other entities involved in the design or construction of the home or apartment to be certified;
- Conflicts between Verifiers, individuals performing quality assurance activities, and/or individuals making certification decisions.

All COI policies are required to be reviewed on an ongoing basis and disclosures updated, as necessary. The HCO is required to disclose any identified potential or existing COI and mitigation steps to EPA on an annual basis.<sup>3</sup>

In addition, the HCO's organizational chart and management system is required to reflect impartiality of decision making related to its Indoor airPLUS certification program and show a clear separation of roles between certification decisions from other business activities that may present COI, if any. Certification decisions are required to be carried out by individuals that have not been involved in the process of evaluation (i.e., Verifiers).

#### 4.3. Non-Discrimination

The HCO's policies, and the administration of its policies, are required to be non-discriminatory and may not unduly impede or inhibit access to its Indoor airPLUS certification program, nor the *Indoor airPLUS Certification System* or the *Indoor airPLUS Certification Protocol*. Further, the HCO is required to make its Indoor airPLUS certification program accessible to all eligible Indoor airPLUS builder and developer partners, and access may not be conditional upon the size of the Indoor airPLUS builder or developer partner, nor membership in any association or group.

#### 4.4 Publicly Available Information

The HCO is required to provide publicly available information online that describes its Indoor airPLUS certification program and the HCO's policies and procedures for granting and withdrawing certification.

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<sup>3</sup> See Section 5.7 for additional information about HCO reporting requirements.

## 5.0 Certification and Oversight Procedures

An Indoor airPLUS HCO is required to take all necessary steps to evaluate conformance with the *Indoor airPLUS Certification Protocol*, including the following measures:

### 5.1. Training and Credential Review of Verifiers

- Deliver or recognize training, examination, and continuing education programs for Verifiers that provide the knowledge and skills necessary to verify Indoor airPLUS-specific program requirements and comply with the HCO's policies related to its Indoor airPLUS certification program.
- Confirm individuals have satisfied the training requirements specified above and ensure that only Verifiers with the requisite credentials perform verification of homes and apartments to earn the Indoor airPLUS label.

EPA will develop and deliver training and a written examination on Indoor airPLUS-specific requirements and maintain a public list of credentialed Verifiers for its Indoor airPLUS certification program that is updated regularly.

### 5.2. Quality Control Protocols

The HCO is required to implement comprehensive quality control systems and procedures that ensure Indoor airPLUS certifications are supported by on-site observation and testing including, at a minimum:

- Verification that Indoor airPLUS checklists are completed and maintained by the Verifier for every certified home and apartment;
- Quality assurance file reviews at a rate of at least ten (10) percent of homes/apartments submitted in a year by each individual Verifier;
- Quality assurance field evaluation, whereby quality assurance personnel independently verify Indoor airPLUS program requirements via a witness or after-the-fact test, of at least one (1) home or apartment submitted in a year by each individual Verifier; Where less than ten (10) homes/apartments are submitted in a year, an additional file evaluation may be used in lieu of a field evaluation;
- Selection of homes/apartments for file and field review are as representative as possible across builders, developers, communities, and/or applicable Indoor airPLUS specifications (i.e., Certification, Gold);

- A set of repeatable standards for assessing whether discrepancies found during quality assurance file reviews and field inspections are within allowable thresholds, which include the use of the appropriate Indoor airPLUS Quality Assurance checklist;
- In the event that discrepancies are discovered outside allowable thresholds, provisions for addressing the specific discrepancies of the certification(s) in question and, more generally, for identifying and addressing the root cause(s) to ensure the discrepancies do not reoccur; and
- In the event of recurring discrepancies for an individual Verifier, provisions for increasing the rate of file review and field evaluation, as well as conditions for triggering disciplinary action by the HCO.

Quality Assurance Protocols that employ innovative quality control schemes, such as those relying on remote video QA, automated file flagging, and/or proposing alternative file and field review frequencies, may be submitted to EPA for consideration.

### 5.3. Sampling Protocol

Where approved by EPA, the HCO may choose to offer a sampling protocol for use in its Indoor airPLUS certification program. When offered, the sampling protocol is required to, at a minimum:

- Require that homes and apartments participating in sampling be within the same subdivision, planned community, or property, be the same construction type, and include the same envelope systems;
- Require successful inspection of at least the first seven (7) consecutive instances of a sampled measure before applying sampling to that measure;
- Ensure that verification occurs on a representative sample of homes and apartments at a rate of no less than one-in-seven (or 15 percent);
- Corrective actions to address failures identified during sampling, including, at a minimum:
  - Correction of any failed measures in the home or apartment where it was discovered,
  - Additional evaluation of measures in minimum of two (2) additional homes or apartments, and
  - After multiple additional failures, requalification through evaluation of measure in at least three (3) additional homes or apartments and/or documentation of a root cause analysis.

### 5.4. Issuing the Indoor airPLUS Label and Certificate

The HCO is required to maintain the final authority over all Indoor airPLUS certifications and responsibility for determining that certified homes and apartments conform with and have been verified in accordance with applicable requirements and specifications in the *Indoor airPLUS Certification Protocol*. The HCO is required to either provide the Indoor airPLUS Verifier, builder, or developer partner with the Indoor airPLUS label and certificate for each certified home or apartment or to provide guidance to the Verifier on printing the label and certificate. Blank label stickers can be ordered through HOST for Indoor airPLUS once the quarterly reports are submitted or by contacting Indoor\_airPLUS@epa.gov. An Indoor airPLUS label printing tool is also available upon request for Verifiers to print data onto the sticker labels and certificates. Labels and certificates are based on template designs provided by EPA and include identification of the issuing HCO.

#### 5.5. Ethics Compliance and Homeowner Inquiry Resolution

The HCO is required to maintain:

- An ethics complaint process covering the HCO, its Verifiers, and designees;
- Procedures for disciplining Verifiers, including provisions for appeal; and inform EPA when disciplinary action is taken<sup>4</sup>; and
- A resolution process for inquiries, including:
  - Providing a web page that allows homeowners, renters, building owners, and/or property managers, to submit inquiries or concerns regarding the Indoor airPLUS certification of their home or apartment.
  - For eligible inquiries, performing certification reviews for the applicable Indoor airPLUS program as defined by the Indoor airPLUS Quality Assurance and certification review checklist (pending) and rescinding the Indoor airPLUS label in cases where the HCO determines a home or apartment fails the certification review.

#### 5.6. Recordkeeping, Reporting, and Disclosure

- Require retention of certification documentation, including verification records, related to the Indoor airPLUS Certification Protocol for a minimum of ten (10) years.

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<sup>4</sup> EPA reserves the right to terminate the Indoor airPLUS Partnership Agreement of Verifiers that violate the terms of their partnership.

- Maintain and make publicly available a database or spreadsheet of Indoor airPLUS certified homes and apartments, including physical address, certification date, builder or developer partner name, Verifier name and company, and Indoor airPLUS program & version number.
- Provide EPA with routine summary reports of the number of homes and apartments certified through the HCO's Indoor airPLUS certification program, by geographic location, builder or developer partner name, and rating company name (if used).
- Provide EPA with aggregate/summary information about the IAQ features used in homes and apartments certified through the HCO's Indoor airPLUS certification programs, upon request. Examples include elements readily attained from Indoor airPLUS Verification Checklists such as envelope leakage, duct leakage, radon test results, or types of equipment installed (e.g., ventilation system type, dehumidification systems, presence of radon fan). EPA anticipates the creation of spreadsheet-based checklists to facilitate the collection of such data.
- Conduct an annual internal management review and provide EPA with an annual report (or more frequently, upon request) regarding the HCO's administration of its Indoor airPLUS certification program, including quality assurance, dispute resolution activities, any identified conflict of interest and conflict of interest mitigation.

#### 5.7. Coordination with EPA

- Maintain open lines of communication with EPA to address questions and concerns promptly.
- Participate in meetings upon request by EPA.
- Work collaboratively with EPA to facilitate the comprehensive and coordinated investigation and response to:
  - Findings resulting from routine quality assurance activities;
  - Certification discrepancies, including those referred to the HCO by EPA; and
  - Certification review requests and other inquiries from building owners or occupants.

### 6.0 Use of Designees

An HCO is permitted to delegate many of the responsibilities related to the implementation of its Indoor airPLUS certification program to one or more external parties, referred to as designees. As examples, designees may

serve as Verifiers or perform quality assurance activities. Where an HCO chooses to use designees, the HCO is required to:

- Take responsibility for all activities of designees related to the implementation of its Indoor airPLUS certification program;
- Have documented qualification criteria for designees;
- Maintain a public or private list of approved designees and their approved scope of activity;
- Ensure that designees follow all of the HCO's policies and procedures, including those required in Sections 4.0 and 5.0;
- Have a quality assurance process by which to assess and monitor the activities completed by the designees on a regular basis; and
- Implement corrective action for any designee breach of the HCO's policies or procedures.

An HCO may not use designees for the following activities:

- Establishing policies governing Indoor airPLUS certification activities, including business code of ethics and conflict of interest policies, as outlined in Section 4.0.
- Exercising final authority over credentialing of Verifiers to work with the HCO's Indoor airPLUS certification program, as outlined in Section 5.1.
- Exercising final authority over certification decisions and issuance of the Indoor airPLUS label, as outlined in Section 5.4.
- Exercising final authority in resolving ethics complaints, presiding over appeals, and disciplining Verifiers, as outlined in Section 5.5.
- Maintaining a database or spreadsheet of homes and apartments that are certified as Indoor airPLUS, as outlined in Section 5.6.
- Coordinating with EPA, as outlined in Section 5.7.

EPA reserves the right to prohibit a designee's participation in Indoor airPLUS certification activities with cause.

## **7.0 EPA Audits**

EPA reserves the right to conduct periodic audits of any and all HCO activities related to the implementation of the *Indoor airPLUS Certification System* and the *Indoor airPLUS Certification Protocol* as needed to ensure the

value and integrity of the Indoor airPLUS program. It is EPA's intention to audit HCOs one (1) year after initial recognition and every two (2) years thereafter, with additional audits as necessary based on performance issues that arise. EPA may revisit the audit protocols and schedules as the HCO marketplace evolves. These audits may include, but are not limited to:

- Review of HCO policies, procedures, documentation, and certification records.
- Phone interviews with HCO personnel and/or designees.
- In-person meetings with HCO personnel and/or designees at the HCO, designee, or EPA offices, at EPA's discretion.
- Site visits (including re-testing, at EPA's discretion) at homes and apartments that have been certified by the HCO through the *Indoor airPLUS Certification Protocol*.

HCOs are expected to fully cooperate with EPA audits, provide requested documentation, and make personnel available for interviews and meetings with EPA staff.

If EPA's audit identifies deficiencies, EPA will provide the HCO with written notification and allow 30 days to resolve identified issues and provide EPA with a written response to EPA's findings. If the organization fails to submit a satisfactory response to EPA that addresses the deficiencies identified, EPA reserves the right to suspend or terminate the organization's recognition.

## **8.0 Amendments, Modifications, and Revisions**

The following sections describe procedures to be followed in the event of amendments, modifications, and/or revisions initiated either by the HCO or EPA.

### **8.1. EPA-Initiated Changes**

EPA reserves the right to amend, revise, or provide technical clarification regarding the *Indoor airPLUS Certification Protocol* and *Indoor airPLUS Certification System* as needed to ensure the value and integrity of the Indoor airPLUS program. EPA releases revisions to program documents as enhancements, refinements, and/or clarifications are deemed necessary. HCOs are required to implement changes according to the implementation timeline that EPA publishes with each update.

For changes to the *Indoor airPLUS Certification System*, organizations previously recognized by EPA will generally be given 180 days to implement any policies or procedures needed to comply with new EPA requirements, unless otherwise specified by EPA based on consultation with HCOs. If changes affect an

HCO's Application for Recognition or an applicant's referenced documents, the HCO is required to provide EPA with a redlined copy of any updates.

### 8.2. Revisions, Amendments, and Interpretations of Referenced Standards

HCOs are required to implement revisions, amendments, and interpretations of standards referenced in the *Indoor airPLUS Certification Protocol* within one (1) year of formal adoption by the standards developer and to publish an implementation timeline online. HCOs may petition EPA for a longer implementation period if warranted on a case-by-case basis, which, if granted, would be made available to all approved HCOs.

### 8.3. HCO-Initiated Changes

The HCO is required to notify EPA in writing about any proposed organizational, procedural, or policy changes, such as an addendum or interpretation to the HCO's operating standards, that materially affect its compliance with the requirements outlined in the *Indoor airPLUS Certification System*. If changes affect an HCO's Application for Recognition or applicant's referenced documents, the HCO is required to provide EPA with a redlined copy of any updates. Notification must be made at least 60 days prior to the implementation of such changes and with sufficient time to allow for EPA to evaluate the changes and determine if the HCO will continue to meet all program requirements.

## 9.0 Suspension/Termination

EPA reserves the right to suspend or terminate its recognition of an HCO that no longer meets the eligibility, policy, certification, and oversight procedure requirements of the *Indoor airPLUS Certification System* and/or has demonstrated a pattern of actions that may negatively impact consumer and industry confidence in, or the integrity of, EPA's Indoor airPLUS program. In such cases, EPA will provide the HCO with written notification and allow 30 days to resolve identified issues and provide EPA with a written response summarizing the changes made. If the organization fails to submit a satisfactory response to EPA that addresses the deficiencies identified, EPA will suspend or terminate the organization's recognition.

Should EPA suspend or terminate an HCO, or if an HCO determines that it will no longer implement an *Indoor airPLUS Certification System*, the organization is required to cooperate with EPA to ensure an orderly closure of its activities and timely transfer of relevant documentation related to the certification of homes and apartments to the *Indoor airPLUS Certification Protocol*. Organizations whose recognition as an HCO is terminated may re-apply for recognition after a period of six months.





















