**DRAFT PDS-01**

**BSR/RESNET/ICC 380-2022 Addendum B-202x**

*Modify as follows:*

**Proposed Edits for Std 380-2022:**

1. **Definitions.**

***Central Fan Integrated Supply System (CFIS System)*** – A Blower Fan of a Forced-Air HVAC System with a return-side outdoor air intake duct that supplies outdoor air to the Dwelling Unit[[1]](#footnote-1).

***Dwelling Unit*** – A single unit providing complete independent living facilities for one or more persons, including permanent provisions for living, sleeping, eating, cooking, and sanitation.

***Dwelling Unit Mechanical Ventilation System*** – A Ventilation system, operating continuously or through a programmed intermittent schedule, consisting of powered Ventilation equipment,[[2]](#footnote-2) related mechanical components,[[3]](#footnote-3) and automated control devices[[4]](#footnote-4) that provides Dwelling Unit Ventilation at a known or measured airflow rate.

***Exhaust Ventilation System (Exhaust System) –*** One or more fans that remove air from the Dwelling Unit, causing outdoor air to enter by Ventilation inlets or normal leakage paths through the Dwelling Unit envelope.

***Supply Ventilation System (Supply System) –*** One or more fans that supply outdoor air to the Dwelling Unit. Supply Ventilation Systems shall be designed and constructed to provide Ventilation air directly from the outdoors to the Dwelling Unit.

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**6.1.6 Central Fan Integrated Supply (CFIS) Systems.~~Forced-Air HVAC System components.~~** ~~If a Dwelling Unit Mechanical Ventilation System is to be tested and uses the Blower Fan of a Forced-Air HVAC System as its primary fan, then the presence of all components included in the Forced-Air HVAC System design for the Dwelling Unit and integrated with the duct system shall be verified. [[5]](#footnote-5) If these components have not yet been installed, then the test shall not be conducted. [[6]](#footnote-6)~~

6.1.6.1. The presence and operation of all components included in the Forced-Air HVAC System design for the Dwelling Unit and integrated with the duct system shall be verified by visual inspection. [[7]](#footnote-7) If these components have not yet been installed, then the test shall not be conducted. [[8]](#footnote-8)

6.1.6.2 The presence or absence of CFIS System functions and components shall be recorded as follows. If assessment is not possible, or the function is not operational, then the individual function or component shall be recorded as absent.

6.1.6.2.1 **Automatic flow control of outdoor air**. Specify whether the CFIS System controls the flow of outdoor air through the outdoor air inlet duct using a mechanical damper or other flow control device[[9]](#footnote-9).

6.1.6.2.2 **Primary Blower Fan control strategy.** Specify whether the CFIS System’s primary Blower Fan control strategy for providing Ventilation is to (a) run the Blower Fan at a fixed interval regardless of heating and cooling runtimes, or (b) include heating and cooling runtimes[[10]](#footnote-10) in fan operation calculations.

6.1.6.2.3 **Strategy for** **meeting remainder of a Ventilation target[[11]](#footnote-11)**. Where the control strategy in 6.1.6.2.2 relies on heating and cooling runtimes, specify whether the CFIS System has a strategy for meeting the remainder of a design Ventilation target: using (a) the Blower Fan, (b) a supplemental Exhaust System, (c) a supplemental Supply System, or (d) has no such strategy.

6.1.6.3 Test and record the outdoor air ventilation flowrates for each fan for all the following operational modes used by the CFIS System, per Section 6.1.7: Blower Fan alone, Blower Fan plus supplemental fan, supplemental fan alone.

**6.1.7. Local mechanical exhaust, Dwelling Unit Mechanical Ventilation System fan, and Forced-Air HVAC System Blower Fan.** Non-CFIS Systems shall use section 6.1.7.1. CFIS Systems shall use section 6.1.7.2, 6.1.7.3, and / or 6.1.7.4.**~~Forced-Air HVAC System Blower Fan.~~** ~~The system controls shall be adjusted as follows:~~

**6.1.7.1.** The fan of the local mechanical exhaust system or Dwelling Unit Mechanical Ventilation System under test shall be turned on. The Forced-Air HVAC System controls shall be adjusted so that the Blower Fan does not operate during the test~~If a Dwelling Unit Mechanical Ventilation System is to be tested and uses the Blower Fan of a Forced-Air HVAC System as its primary fan, then the Forced-Air HVAC System controls shall be adjusted to “Fan” mode so that the Blower Fan operates during the test~~.

**6.1.7.2.** For a CFIS System with an operational mode using only the primary Blower Fan, the Forced-Air HVAC System controls shall be adjusted to “Fan” mode so that the primary Blower Fan operates during the test~~Otherwise, the Forced-Air HVAC System controls shall be adjusted so that the Blower Fan does not operate during the test~~.

6.1.7.3 For a CFIS System with an operational mode using a supplemental ventilation fan separate from the primary Blower Fan, the supplemental ventilation fan under test shall be turned on and the Forced-Air HVAC System controls shall be adjusted so that the Blower Fan does not operate during the test.

6.1.7.4 For a CFIS System with an operational mode using both the primary Blower Fan and a supplemental ventilation fan, the Forced-Air HVAC System controls shall be adjusted to “Fan” mode so that the primary Blower Fan operates during the test, the supplemental ventilation fan under test shall be turned on, and outdoor air flow rates for both fans shall be measured with both fans operating.

**~~6.1.8. Local mechanical exhaust or Dwelling Unit Mechanical Ventilation System.~~** ~~The fan of the local mechanical exhaust system or Dwelling Unit Mechanical Ventilation System under test shall be turned on. For Dwelling Unit Mechanical Ventilation Systems that use the Blower Fan of a Forced-Air HVAC System as its primary fan, this shall be accomplished according to Section 6.1.7.~~

**6.1.8. ~~6.1.9.~~ Other fans.** Any other fans that could change the pressure in either the Conditioned Space Volume or any spaces containing the ducts of the Dwelling Unit Mechanical Ventilation System or local mechanical exhaust system[[12]](#footnote-12) under test shall be turned off.

1. (Informative Note) A CFIS System does not automatically qualify as a Dwelling Unit Mechanical Ventilation System; see that definition for additional requirements. Additional criteria for characterizing and simulating a CFIS System can be found in Standard 380 in the Section on CFIS Systems, and in Standard 301 in the Section on Ventilation Systems, Table 4.5.2(1) Minimum Rated Features, and Normative Appendix B On-Site Inspection Protocols. [↑](#footnote-ref-1)
2. (Informative Note) Such as motor-driven fans and blowers. [↑](#footnote-ref-2)
3. (Informative Note) Such as ducts, inlets, dampers, or filters. [↑](#footnote-ref-3)
4. (Normative Note) A switch or thermostat setting, which enables the occupant to turn a system on and off, is not considered automated, continuous, nor programmed. The presence of a ventilation override control is permitted, if the override control is labeled with text or an icon that clearly indicate its function is to turn off the ventilation system. [↑](#footnote-ref-4)
5. ~~(Informative Note) For example, heating, cooling, ventilation, dehumidification, humidification, and filtration components.~~ [↑](#footnote-ref-5)
6. ~~(Informative Note) For example, in new construction the test shall not be conducted if an air handler has not yet been installed.~~ [↑](#footnote-ref-6)
7. (Informative Note) For example, heating, cooling, ventilation, dehumidification, humidification, and filtration components. [↑](#footnote-ref-7)
8. (Informative Note) For example, in new construction the test shall not be conducted if an air handler has not yet been installed. [↑](#footnote-ref-8)
9. (Informative Note) For example, by visually verifying whether the CFIS System controller is wired to a mechanical damper in the outdoor air inlet duct. [↑](#footnote-ref-9)
10. (Informative Note) For example, by verifying that this functionality exists in the CFIS System’s operation manual and that the controls are set to this mode of operation. [↑](#footnote-ref-10)
11. (Informative Note) This indicates the actual home’s designed ventilation amount, not necessarily an amount required programmatically, e.g. Standard 301. [↑](#footnote-ref-11)
12. (Informative Note) For example, clothes dryers, Attic fan. [↑](#footnote-ref-12)