

RECD1-1-22

IRCECC: N1103.6.4(R403.6.4) (New)

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2024 ENERGY Chapter11

Add new text as follows:

N1103.6.4(R403.6.4) Intermittent exhaust control for bathrooms and toilet rooms. Where an exhaust system serving a bathroom or toilet room is designed for intermittent operation, the exhaust system shall be provided with manual-on capability and one or more of the following controls:

1. A timer control that has a minimum setpoint not greater than 30 minutes.
2. An occupant sensor control that automatically turns off exhaust fans within 30 minutes after all occupants have left the space.
3. A humidity control capable of manual or automatic adjustment from a minimum setpoint not greater than 50 percent to a maximum setpoint not greater than 80 percent relative humidity.
4. A contaminant control that responds to a particle or gaseous concentration.

An off setpoint shall not be used to comply with a minimum setpoint requirement.

Exception: Bathroom and toilet room exhaust systems serving as an integral component of an outdoor air ventilation system or a whole-house mechanical ventilation system shall not be required to provide controls other than manual on capability.

Reason: This proposal will coordinate the IECC-R with Section C403.8.6.2 of IECC-C PC#1. Following is the PC#1 text of that Section with strikethrough and underline shown for minor modifications that adapt it to the residential chapter.

C403.8.6.2 Intermittent exhaust control for bathrooms and toilet rooms.

Where an exhaust system serving a bathroom or toilet room is designed for intermittent operation, the exhaust system shall be provided with manual-on capability and one or more of the following controls:

1. A timer control that has a minimum setpoint not greater than 30 minutes.
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4. A contaminant control that responds to a particle or gaseous concentration.

An off setpoint shall not be used to comply with a minimum setpoint requirement.

Exception: Bathroom and toilet room exhaust systems serving as an integral component of an outdoor air ventilation system or a whole-house mechanical ventilation system ~~in Group R-2, R-3, and R-4 occupancies~~ shall not be required to provide controls other than manual on capability.

~~An off setpoint shall not be used to comply with a minimum setpoint requirement.~~

Rationale for modifications for the IECC-R version versus the IECC-C PC1 version:

1. Move the sentence beginning with, "an off setpoint shall not..." ahead of the exception to align with the ICC convention of placing all requirements prior to the exception.

2. Remove the reference to R-2, R-3, and R-4 occupancies because the requirement should apply to dwelling units in all occupancies within the scope of the IECC-R.

3. Add "whole-house mechanical ventilation system" because this is the defined term that is used in the IRC. "Outdoor air ventilation system" is the term used in the IMC.

Cost Impact: The code change proposal will increase the cost of construction.

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The timers are approximately \$ 20 retail (see links below for costs) with a \$ 1 credit for the light switch, the installation is the same as a light switch during new construction. Payback is generally between 3 months and 3 years.

<https://www.lowes.com/pd/TORK-Digital-Countdown-Lighting-Timer/1000341275>

<https://www.homedepot.com/p/GE-In-Wall-Digital-Countdown-Timer-15318/202788262>