CODE INTERPRETATION (DRAFT)

DATE: 7/21/17

SUBJECT: Interpretation on Intermittent Ventilation

CODE: 2015 Minnesota Residential Energy Code Section R403.5.5

Question: Can certain exhaust fans that are being used as intermittent ventilation according to Section R403.5.4 of 2015 Minnesota Residential Energy Code (MREC) also be used as a ventilation component to comply with Section R403.5.2 of the MREC?

Answer: Yes, by using the exception in Section R403.5.5, if a balanced heat recovery ventilation (HRV) system or energy recovery ventilation (ERV) system is installed to meet the continuous ventilation rate of Section R403.5.3, as long as the requirements in Table R403.5.1 and Section R403.5.5 are satisfied. Table R403.5.1 requires minimum fan efficacies and Section R403.5.5 requires surface mounted fans to have a maximum 1.0 sone rating according to HVI Standard 915. In addition, the airflow verification requirements of Section R403.5.6.1.3 shall be met.

Background: Historically in Minnesota certain exhaust fans have been allowed to provide intermittent ventilation to supplement the overall ventilation in residential structures. This concept has been widely accepted not only in Minnesota, but in other national codes and standards such as ANSI/ASHRAE Standard 62.2-2016. It also discourages unnecessary oversizing of heat recovery ventilation and energy recovery ventilation systems and results in more effective and energy-efficient ventilation systems. Although Section R403.5 requires a balanced ventilation system that is +/- 10 percent of the system’s design capacity, the intermittent exhaust fans have been proven to be an effective method of providing supplemental intermittent ventilation. This type of intermittent ventilation generally does not require makeup air provisions as specified in Section 501.4 of the 2015 Minnesota Mechanical Code.

Please don’t hesitate to contact me if you have any questions regarding this issue.

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