

RESNET Formal Interpretation 2007-002

NOTE: This document supersedes and replaces interpretation 06-001, Infiltration and Mechanical Ventilation (2/21/2006).

Approved by the RESNET Board of Directors, 6/1/2007

Proponent:

RESNET Technical Committee

Applies to:

2006 Mortgage Industry National Home Energy Rating Systems Standards Table 303.4.1.(1), under "Air exchange rate"; footnotes (e) and (f). This interpretation replaces the previous interpretation 06-001.

Interpretation: Infiltration and Mechanical Ventilation

"As to those sections of Table 303.4.1(1) covering Air Exchange Rate and Mechanical Ventilation, including footnotes (d), (e) and (f), it shall be the Interpretation of RESNET that air infiltration in Rated Homes may not be used to substitute for any part of the mechanical ventilation requirements set forth in these Standards. In other words, the minimum requirement for mechanical ventilation as set forth in Table 303.4.1(1) under Air Exchange Rate [i.e. minimum ventilation cfm = $0.01 * CFA + 7.5 * (Nbr+1)$] must be met in full by the Rated Home's mechanical ventilation system, exclusive of any envelope air infiltration. In addition to this minimum mechanical ventilation requirement, for the purpose of calculating a Rating, the Rated Home's air exchange rate, as measured in accordance with footnote (e) of Table 303.4.1(1) but not less than 1 CFM per 100 square feet of conditioned floor space as an annual average, shall be added to the Rated Home's mechanical ventilation rate as described in footnote (f) of Table 303.4.1(1), to determine the total air exchange rate of the Rated Home. Rated Homes with mechanical ventilation systems shall be configured in the rating analysis so as to meet or exceed these minimum mechanical ventilation requirements during periods when open windows do not naturally ventilate the Rated Home.

Exception:

50% of the measured envelope infiltration rate in excess of 2 cfm per 100 ft² of conditioned floor area may be subtracted from the minimum required mechanical ventilation rate specified herein.

Rationale: Exception 2 was removed, to reflect INTERPRETATION IC 62.2-2004-4 of ANSI/ASHRAE STANDARD 62.2-2004 (January 27, 2007); however, a lower limit of 1 CFM/100 square feet was added to the home's air tightness for the purposes of calculating the HERS index.