

**INTERPRETATION IC 62.1-2007-21 OF
ANSI/ASHRAE STANDARD 62.1-2007
VENTILATION FOR ACCEPTABLE INDOOR AIR QUALITY**

Approved: January 29, 2011

Request from: Nathan Ho (NathanH@McKinstry.com), Engineer, 5005 3rd Ave S, Seattle, WA 98134.

Reference: This request for interpretation refers to the requirements presented in ANSI/ASHRAE Standard 62.1-2007, Sections 6.2.6 and 6.2.7, regarding ventilation during heat pump defrost cycle.

Background: When designing a heat pump system, it should be noted that it is likely that there could be times when the unit goes into defrost mode. This defrost mode can typically last from 10 to 15 minutes and leads to the sub-cooling of discharge air temperature. To account for heat pump defrost, it is usually necessary to provide auxiliary heat to temper the discharge air temperature to the space. Depending on the design ventilation rate, the auxiliary heating coil could become quite large and lead to significant electrical infrastructure upgrades.

Interpretation No.1: It would be acceptable to intermittently reduce ventilation rates, potentially closing off outside airflow entirely in some cases, as necessary during periods of heat pump defrost to avoid mixed air temperatures that could be detrimental to occupant comfort.

Question No.1: Is this interpretation correct?

Answer No.1: Yes

Comments on No. 1: See Section 6.2.6.2.

Interpretation No.2: If yes to Question 1, then intermittently reducing ventilation rates, potentially closing off airflow entirely in some cases, may also be applied during heat pump defrost cycles for systems equipped with CO₂-based DCV.

Question No.2: Is this interpretation correct?

Answer No.2: Yes

Comments: Section 6.2.6.2 may be used in conjunction with Section 6.2.7 and the method of DCV control is irrelevant.