

**INTERPRETATION IC 62.1-2007-15 OF
ANSI/ASHRAE STANDARD 62.1-2007
VENTILATION FOR ACCEPTABLE INDOOR AIR QUALITY**

Transfer Approved: January 20, 2008

Originally issued as interpretation of Standard 62-2001 (IC 62-2001-50) on June 26, 2005, transferred to Standard 62.1-2004 (IC 62.1-2004-15) on June 25, 2006 and subsequently transferred to 62.1-2007. Even though Standard 62.1-2007 includes some changes to relevant sections of Standard 62.1-2004, only minor revisions related to referenced sections were made in transferring this interpretation to apply to Standard 62.1-2007.

Request from: Charles S. Argue, Jr., P.E. (cargue@hlm-heery.com), HLM Design - Heery International, Inc., 1650 Arch Street, Suite 1810, Philadelphia, PA 19103.

Reference: This request for interpretation refers to Addendum “n” to ANSI/ASHRAE Standard 62-2001 that incorporates a new Ventilation Rate Procedure in Section 6.2 of ANSI/ASHRAE Standard 62.1-2007, specifically Section 6.2.5.2 and Appendix A (and the VRP Excel Spreadsheet 2005119121636_347.xls).

Background: Addendum “n” to 62-2001 revises the ventilation rate procedure. One of the key components is the determination of the *system ventilation efficiency*, E_v , which can be determined from Table 6.3, or Appendix A. Table 6.3 provides a direct determination of E_v based on the maximum *zone primary outdoor air fraction*, Z_p . Appendix A utilizes the minimum *zone ventilation efficiency*, E_{vz} , of all zones served by a particular unit. Equation A-2 provides a generalized form of the equation to determine E_{vz} . Within E_{vz} , the fraction of supply air to the zone from outside sources, F_a , is to be determined, which in turn relies on the determination of the primary air fraction to the zone, E_p . E_p is defined as V_{pz}/V_{dz} , where V_{pz} , the zone primary air flow, is defined in Section 6.2.5.1. However, V_{dz} is not defined. In Section 6.2.5.1 V_{pz} for VAV systems is to be the minimum expected primary air flow. However, in the VRP Excel spreadsheet provided by ASHRAE the notes indicate that V_{pz} is to equal the design air flow.

Interpretation No. 1: V_{pz} for VAV systems, whether in 6.2.5.1, or Appendix A, is to be the minimum expected primary air flow (i.e. the lowest setting for the VAV box).

Question No. 1: Is this Interpretation correct?

Answer No. 1: Yes

Comments No. 1: Of course if the VAV box never reaches its minimum airflow setpoint at ventilation design conditions, V_{pz} may be higher than this minimum setpoint.

Interpretation No. 2: V_{dz} is the zone discharge (supply) airflow to the zone that includes primary and locally recirculated airflow. With VAV systems this shall be V_{pz} plus the recirculated airflow when V_{pz} is at the expected minimum.

Question No. 2: Is this Interpretation correct?

Answer No. 2: Yes