INTERPRETATION IC 62.1-2007-2 OF ANSI/ASHRAE STANDARD 62.1-2007 VENTILATION FOR ACCEPTABLE INDOOR AIR QUALITY

Approved 1/20/2008

<u>Request from:</u> Jeremy Fauber (<u>jpfauber@heapy.com</u>), Heapy Engineering, LLC, 1400 West Dorothy Lane, Dayton, OH 45409.

<u>Reference</u>: This request for interpretation refers to the requirements presented in ANSI/ASHRAE Standard 62.1-2007, Section 6.2.2 and Table 6-2, regarding zone air distribution effectiveness (E_Z) values.

Background: Heat pumps are typically sized for meeting the cooling load and thus typically oversized for meeting the heating load. On a heating design day while operating in the heating mode the heat pump will deliver air more than $15^{\circ}F$ above room temperature a fraction of the hour, and room temperature the remainder of the hour. The air delivery temperature averages much lower than the heating leaving air temperature of the heat pump and the average is less than $15^{\circ}F$ above room temperature.

Interpretation: For a ceiling supply of warm air an E_Z value of 1.0 can be used when the average air temperature delivered to a space during heating is less than 15°F above room temperature.

Question: Is this interpretation correct?

Answer: No

Comments: Section 6.2.2 does not allow averaging supply air temperature to determine a value of Ez.