INTERPRETATION IC 62.1-2013-5 OF
ANSI/ASHRAE STANDARD 62.1-2013
VENTILATION FOR ACCEPTABLE INDOOR AIR QUALITY

Approved: January 24, 2016

Request from: Jeremy Fauber, Heapy Engineering, 1400 W. Dorothy Lane, Dayton, OH 45409.

Reference: This request for interpretation refers to the requirements presented in ANSI/ASHRAE Standard 62.1-2013, Section 6.2.5.1, regarding the determination of the zone primary airflow (*Vpz*) for VAV systems.

Background: ASHRAE 62.1-2013 Section 6.2.5.1 notes that "For VAV-system design purposes, V_{pz} is the lowest zone primary airflow value expected at the design condition analyzed."

VAV systems will typically have a zone primary airflow rate that can vary from the peak cooling design airflow rate required to meet the design cooling load to an engineer-selected cooling minimum airflow rate. Compliance with ASHRAE 90.1-2013 Section 6.5.2.1 Exception 2 VAV systems would also have a zone primary airflow rate that can vary from the dead band reheat minimum airflow rate (20% of zone design peak supply rate from 6.5.2.1 Exception 2.a.1 or other minimum as determined by the standard) to a reheat maximum airflow rate (50% of the zone design peak supply rate from 6.5.2.1 Exception 2.b), and a heating design airflow rate required to meet the heating design load (per IC 90.1-2013-7 interpretation).

Interpretation: For VAV-system design purposes V_{pz} would be determined by the lesser of the peak cooling design and the peak heating design airflow rates as these are design conditions. For VAV-system design purposes cooling minimum, reheat minimum (dead band) and reheat maximum airflow rates are not design conditions but system control points and thus they would not be used for determining V_{pz}.

Question: Is this interpretation correct?

Answer: No.

Comments: Refer to highlighted paragraph 6.2.5.1 below from 62.1 -2013 for determining V_{pz}

Notes:
1. For VAV-system design purposes, V_{pz} is the lowest zone primary airflow value expected at the design condition analyzed.