## INTERPRETATION IC 90.1-2004-35 OF ANSI/ASHRAE/IESNA STANDARD 90.1-2004 Energy Standard for Buildings Except Low-Rise Residential Buildings

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**<u>Request from</u>**: Matt Swenka, The Weidt Group, 2815 Beaver Avenue, Suite 106, Des Moines, IA 50310.

**<u>Reference</u>**: This request for interpretation refers to the requirements presented in ANSI/ASHRAE/IESNA Standard 90.1-2004, Section G3.1.3.15, regarding VAV Fan Part-Load Performance.

**Background:** G3.1.3.15 provides modeling guidance on VAV fan part-load performance with the following:

"VAV system supply fans shall have variable-speed drives, and their part-load performance characteristics shall be modeled using either Method 1 or Method 2 specified in Table G3.1.3.15." Where Method 1 or Method 2 provides fan performance data points and a performance equation, respectively.

Section 6.5.3.2 of the standard describes fan control requirements of VAV systems including static pressure reset. It is unclear if the VAV fan part-load performance curves provided in G3.1.3.15 account for static pressure reset.

**Interpretation:** G3.1.3.15 describes VAV systems as requiring variable speed drives. The partload fan power characteristics described in G3.1.3.15 account for variables speed drives only and do not account for static pressure reset.

**Question:** Is this interpretation correct?

Answer: Yes.

**<u>Comments</u>**: This interpretation is also applicable to VAV fan part load performance curves in 90.1-2007, 90.1-2010, 90.1-2013, and 90.1-2016.