

**INTERPRETATION IC 55-2004-1 OF  
ANSI/ASHRAE STANDARD 55-2004  
THERMAL ENVIRONMENTAL CONDITIONS FOR HUMAN OCCUPANCY**

**Date Approved: June 25, 2005**

**Request from:** Larry Spielvogel, PE, Engineer, 31343 Valley Forge Circle, King of Prussia, PA 19406.

**Reference:** This request for interpretation refers to the requirements in ANSI/ASHRAE Standard 55-2004, Sections 5.2.1.1 and 5.2.2, and Figure 5.2.1.1 relating to the acceptable range of operative temperature and humidity.

**Background:** The upper limit of humidity shown in the referenced sections corresponds to a humidity ratio of 0.12. This high humidity level may result in condensation on building surfaces which in turn can lead to microbial growth.

**Interpretation:** The upper humidity limit in Standard 55 is based on achieving conditions acceptable for human comfort. Addressing the potential for condensation that can lead to biological contamination is beyond the scope of Standard 55.

**Question:** Is the interpretation correct?

**Answer:** Yes.

**Comments:** Standard 55 provides guidance on humidity limits only as supported by the available thermal comfort research. Users of the Standard seeking guidance on humidity limits relating to issues other than thermal comfort should rely on the appropriate ANSI/ASHRAE Standards and ASHRAE Handbooks. For issues relating to microbiological amplification and indoor air quality, two appropriate standards are ANSI/ASHRAE Standard 62.1 *Ventilation for Acceptable Indoor Air Quality* and ANSI/ASHRAE Standard 62.2 *Ventilation and Acceptable Indoor Air Quality in Low-Rise Residential Buildings*.