INTERPRETATION IC 90.1-2004-31 OF
ANSI/ASHRAE/IESNA STANDARD 90.1-2004
Energy Standard for Buildings Except Low-Rise Residential Buildings

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Request from: Adrian Tuluca (atuluca@viridianee.com), Viridian Energy & Environmental LLC, 50 Washington Street, Norwalk, CT 06854.

Reference: This request for interpretation refers to the requirements presented in ANSI/ASHRAE/IESNA Standard 90.1-2004, Section 6.4.3, regarding HVAC system control and set point overlap restriction.

Background: We provide LEED consulting services for a variety of building types. The building type of concern here is a mid-rise dormitory. The dormitory rooms are conditioned with heat pumps, PTAC units, or fan-coil units. Dormitory rooms are seldom single; more typically, there are two or three students to a room. Units are either two-pipe or four-pipe.

Our concern focuses on Section 6.4.3.2 "Setpoint Overlap Restriction," and two of its sub-section: 6.4.3.3.1 "Automatic Shutdown," and 6.4.3.3.2 "Setback Controls." We believe that these requirements are not appropriate for dormitories. Students have irregular hours, especially in the typical case where more than one student occupies a room. To accommodate the requirements of Section 6.4.3.2, we would have to provide each room with a programmable thermostat. We believe that such a device would not be used properly by the students. Specifically, the irregular schedules of students would defeat any attempt to set up a regular regime of thermostat set-up and set-down.

We believe dormitory rooms are similar in their usage to hotel and motel rooms. In the "Exceptions to 6.4.3.3," exception (a) lists "*HVAC systems* serving hotel/motel guest rooms." We believe dormitory rooms are covered by this exception.

Further, it seems that the exception should apply to all the sub-paragraphs of Section 6.4.3.2. just as it applies for "hotel/motel guest rooms."

Interpretation: Exception (a) of Section 6.4.3.3 applies to dormitory rooms. This exception applies to all the sub-sections of Section 6.4.3.2.

Question: Is this interpretation correct?

Answer: No

Comments: There are plenty of opportunities within a multiple floor residential dormitory to shutdown individual systems or zones within a larger system. Such building types are rarely occupied 100% of the time during each day, week, month, or year, and during these unoccupied times there is opportunity to save operational energy.

The standard does not limit the method of shutdown control to a programmable thermostat, other widely used methods to determine occupancy may be used to initiate shutdown. Setback shall be used as indicated in Section 6.4.3.2.2.