INTERPRETATION IC 15-2007-1 OF
ANSI/ASHRAE STANDARD 15-2007
SAFETY STANDARD FOR REFRIGERATION SYSTEMS

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Request from: Norman L. Nelson, PE (norman.nelson@hilton.com), Hilton Worldwide, 8311 Brier Creek Pkwy Ste 105-505, Raleigh, NC 27617.

Reference: This request for interpretation refers to the requirements presented in ANSI/ASHRAE Standard 15-2007, Section 7.3, regarding volume calculations for heavier than air refrigerants.

Background: Hotel/motel guest rooms typically consist of a sleeping room and connecting toilet room. Variable refrigerant flow systems applied to guest rooms have the potential to have relatively large quantities of refrigerant discharged into the guest room. The greatest risk for life safety occurs when the guests are sleeping and their location is within the bottom 3 feet or ~1 meter of the guest room, where heavier than air refrigerants such as R-410A would collect; displacing all of the oxygen.

Interpretation: It is Hilton Worldwide's interpretation that volume calcualtions should only include the lowest volume of the room in which the guest is supine and sleeping when determining the allowable refrigerant limits.

Question: Is this Interpretation correct?

Answer: No.

Comment: The designer is free to be more conservative, by using a smaller volume.