

**INTERPRETATION IC 15-1992-10 OF
ASHRAE STANDARD 15-1992
SAFETY CODE FOR MECHANICAL REFRIGERATION**

December 6, 1993

Request from: Joel Hobby, P.E., Triangle Engineering Associates, 417 N. Boylan Ave., P.O. Box 10827, Raleigh, NC 27605

References. This request refers to Standard 15-1992, Subsection 5.2.1 High Probability Systems, and to Interpretation No. IC 15-1992-4.

Background. Mr. Hobby's letter reports:

"Subsection 5.2.1 reads:

5.2.1 High-Probability Systems. Any system in which the basic design, or the location of components, is such that a leakage of refrigerant from a failed connection, seal, or component could enter the area under consideration. Typical high-probability systems are (a) any direct or indirect open spray system or (b) any arrangement in which refrigerant-containing parts in the refrigerant circuit are located in such a way that refrigerant leakage could enter the area.

Interpretation IC 15-1992-4 concludes that a typical indirect closed system in a machinery room containing air ducting which has access doors that could inadvertently be left open is a high probability system. This interpretation presents far reaching economic implications for both existing systems and new installations employing typical air handling equipment used in conjunction with a liquid chiller. The use of a secondary coolant (generally water) is employed specifically to avoid the possibility of exposing the occupied areas of a building to any possible refrigerant leakage. Maintenance requirements and indoor air quality considerations dictate that the air handler contain access doors, and all major manufacturers produce this equipment with access doors.

Mr. Hobby's Interpretation. "To avoid even the remote possibility of an access door being inadvertently left open and having refrigerant leakage delivered to an occupied space by the air handler, a refrigerant sensor can be used to shut down the fan such that air cannot be delivered to an occupied space if an alarm level is reached. We interpret that such an installation would be considered a low probability system."

Question. Is Mr. Hobby's interpretation correct?

Answer. No