

INTERPRETATION IC 15-1994-05
ANSI/ASHRAE STANDARD 15-1994, SAFETY CODE FOR MECHANICAL REFRIGERATION
November 5, 1997

Request from: George Stavrou, Chief Mechanical Inspector, Fire, Rescue and Building Department, City of Fort Lauderdale, FL 33301-1098.

Reference. This request refers to compliance of a multiple chiller package with requirements in ANSI/ASHRAE 15-1994, subclauses 2.2 Scope, 3 Definitions—occupied space, 5.2.2 Low Probability System, 7.3.3 Unventilated Spaces, 8.13 Refrigerating Machinery Room, and Table 1 Refrigerant and Amounts.

Background. A hotel with a single large chiller containing 300 lb. of R-11 refrigerant proposes to replace this chiller with three smaller chiller systems. Each of the replacement chiller systems contain dual refrigerant circuits, 12 lb. of R-22 refrigerant in each circuit. The chiller to be replaced is housed in a room having a volume of 4,815 ft³. The replacement chillers will be housed in this room, which is unventilated. Mr. Stavrou's letter suggests the following two interpretations:

Mr. Stavrou's Interpretation 1. The original requirement for the refrigerating machinery room would no longer apply after substitution of the three smaller chiller systems since the quantity of refrigerant in any one refrigerant circuit would not exceed Table 1 limits (9.4 lb. per 1,000 ft³ for R-22). Therefore, the room housing the chillers does not have to be upgraded to ASHRAE 15-1994, 8.13 requirements.

Mr. Stavrou's Interpretation 2. Refrigerating machinery rooms are not considered occupied space and Table 1 quantity limits do not apply to these rooms. Since the refrigerating machinery room already exists in this case, however, it must meet the requirements of 8.13 in order to be in compliance with ASHRAE 15-1994.

Question 1. Is Mr. Stavrou's Interpretation No. 1 correct?

Answer 1. Yes.

Comment 1. When the conditions that created the requirement for a refrigerating machinery room no longer exist, the requirements of 8.13 no longer apply.

Question 2. Is Mr. Stavrou's Interpretation No. 2 correct?

Answer 2. No.

Comment 2. The first sentence of Mr. Stavrou's Interpretation No. 2 is correct, but not necessarily the second sentence. The replacement system described is a low probability system (5.2.2) and the refrigerant quantity in any one circuit does not exceed Table 1 quantity limits for the space in which the system is located. The Clause 3 definition of *occupied space* excludes machinery rooms. In 7.3.3 Unventilated Spaces, the exception given to machinery rooms in the second sentence does not apply because the existing equipment room is unventilated. The Interpretation Committee interprets that the room housing the chillers must either follow the rules for occupied space or for machinery rooms.

The requirements in Subclauses 7.1–7.4 (including 7.3.3) apply whether or not a refrigerating machinery room is required under the rules of 7.3. Standard 15 does not address detection or ventilation requirements for former machinery rooms.