

INTERPRETATION IC 15-1994-4
ANSI/ASHRAE STANDARD 15-1994, SAFETY CODE FOR MECHANICAL REFRIGERATION
September 3, 1997

Request from: Hugh W. Kurtz, Manager of Contract Engineering, Frick/York International, 100 CV Avenue, P.O. Box 997, Waynesboro, PA 17268-0997.

Reference. This request refers to ANSI/ASHRAE 15-1994, Paragraph 9.7.5.

Background. Mr. Kurtz's letter notes that 9.7.5 requires that an additional factor of 2.5 be applied to the sizing of relief valves when combustible materials are used within 20 ft (6.1 m) of a pressure vessel. His letter opines that the application of this factor has large implications regarding safety and cost and seeks clarification.

Question 1. Does the requirement that an additional factor of 2.5 be multiplied times the "f" factor apply to the sizing of relief valves for pressure vessels when a flammable refrigerant is used in a closed system with 20 feet of the pressure vessel?

Answer 1. No.

Question 2. Does the requirement that an additional factor of 2.5 be multiplied times the "f" factor apply to the sizing of relief valves for pressure vessels when flammable secondary coolants are used in a closed system within 20 feet of the pressure vessel?

Answer 2. No.

Question 3. Does the requirement that an additional factor of 2.5 be multiplied times the "f" factor apply to the sizing of relief valves for pressure vessels when flammable fuels are used in the prime mover, for the refrigeration system, within 20 feet of the pressure vessel?

Answer 3. No.

Question 4. Does the requirement that an additional factor of 2.5 be multiplied times the "f" factor apply to the sizing of relief valves for pressure vessels when flammable fuels are stored within 20 feet of the pressure vessel?

Answer 4. No.

Comment. The reference to API 520 was added to ASHRAE 15-1992 as a response to public review comments. Subsequent simplification to a multiplier of 2.5 was also in response to public review comments, since jurisdictional inspectors do not always have access to the API standard at the installation.

The 2.5 multiplier applies when combustible material is stored within 20 feet of the pressure vessel, or to combustible material underneath the pressure vessel, such as a tar roof under a receiver. The 2.5 factor does not apply when flammable refrigerants or secondary coolants are used within the refrigeration system.