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International Institute of Ammonia Refrigeration

INTERPRETATION: IIAR SRC 2011-1

SUBJECT: ANSI / IIAR – 2, 2008 ADDENDUM A, Section 10.3.1.2

DATE ISSUED: APRIL 26, 2011

QUESTION:

Section 10.3.1.2 states "Valve gasket materials shall match valve manufacturer's specifications, be compatible with ammonia and of the thickness specified. Flange bolts shall be torqued as indicated in the valve manufacturer's installation documents." Does this mean that a specific torque value must be applied to the flange bolts via the use of a torque wrench?

REPLY:

The term "torque" is defined as "the tendency of a force to rotate an object about an axis, fulcrum or pivot". However, it is often assumed that the term implies a specific value of foot-pounds (newton-meters) be applied to a nut or bolt using a calibrated wrench. The use of the term "torque" within the standard does not imply that a specific value of torque should be applied to the flange bolts. The phrase within the standard "…torqued as indicated in the valve manufacturer's installation documents" means that trained installers shall install an appropriate gasket, tighten bolts in an alternating pattern ensuring that the flanges and piping are properly aligned, and that the resulting joint is tight and leak free. Gaskets provided with the valve or flange should be used. Replacement gaskets must be of like design to the originals.

COMMITTEE ACTION:

Upon the next re-affirmation of the standard, remove the phrase "…torqued as indicated in the valve manufacturer's installation documents" and replace with the phrase "tighten bolts in an alternating pattern ensuring that the flanges and piping are properly aligned, and that the resulting joint is tight and leak free."