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### **ASHRAE Publishes 2010 Editions of Refrigerant Safety Standards**

ATLANTA – The 2010 editions of ASHRAE's major refrigerants-related standards have been published as a package with 14 new refrigerant blends added.

Requirements in ANSI/ASHRAE Standard 34-2010, *Designation and Safety Classification of Refrigerants*, and ANSI/ASHRAE Standard 15-2010, *Safety Standard for Refrigeration System*, complement each other in that Standard 34 describes a shorthand way of naming refrigerants and assigns safety classifications based on toxicity and flammability data, while Standard 15 establishes procedures for operating equipment and systems when using those refrigerants. ASHRAE sells the standards as a set.

Standard 34-2010 combines the 2007 standard and 37 published addenda. Among the key changes incorporated into the 2010 edition are:

- assignment of designations and safety classifications for one new single compound refrigerant and 14 new refrigerant blends
- addition of occupational exposure limits for refrigerants to Tables 1 and 2
- addition of new data and updates of refrigerant concentration limits (RCL) and safety classifications for several existing refrigerants
- addition of an optional 2L subclass to the existing Class 2 flammability classification, which signifies Class 2 refrigerants with a burning velocity less than or equal to 10 cm/s.
- introduction of a modified method of calculating the heat of combustion for refrigerants along with inclusion of an illustrative example of the calculation
- addition of an informative appendix showing an example of the calculation of the acute toxicity exposure limit and refrigerant concentration limit for a refrigerant blend

Changes to Standard 15 include incorporation of nine new addenda. The changes made through these addenda include:

- revision of requirements for terminating relief vent discharge lines
- revision to bring the standard into alignment with UL 984 (*Hermetic Refrigerant-Motor Compressors*)
- addition of definitions so the standard can better provide for the safety of cascade refrigeration systems

- revision to provide appropriate guidance for the protection of positive displacement compressors when used in cascade refrigeration system configurations
- revision to bring the standard into alignment with Standard 34, by removing Table 1 for “refrigerant quantity limits,” and uniformly using the term “refrigerant concentration limits”

Standard 15-2010 and Standard 34-2010 are sold together. The cost is \$89 (\$75 ASHRAE members). To order, contact ASHRAE Customer Service at 1-800-527-4723 (United States and Canada) or 404-636-8400 (worldwide), fax 404-321-5478, or visit [www.ashrae.org/bookstore](http://www.ashrae.org/bookstore).

ASHRAE, founded in 1894, is an international organization of some 50,000 persons. ASHRAE fulfills its mission of advancing heating, ventilation, air conditioning and refrigeration to serve humanity and promote a sustainable world through research, standards writing, publishing and continuing education.