

52nd Offering of the Industrial Refrigeration Workshop

Charlotte, North Carolina
Feb. 25 - Mar. 1, 2019



conferences.k-state.edu/industrial-refrig/

About the workshop: A one-week intensive short course on industrial refrigeration as practiced in food freezing, refrigeration and in other low temperature applications. A systematic study is made of the technical background, the practice and the latest developments in low temperature refrigeration. This workshop is offered in February. Started in 1982, this is the 52nd offering of the workshop.

For whom: Engineers and supervisors employed by equipment manufacturers, design firms, refrigerated warehouses, food processors, contractors and chemical firms. The course is intended for designers and builders of new or enlarged plants, supervisors of plant operations, engineers for manufacturers who will learn how their components fit into systems, engineers and managers either new to the industrial refrigeration field, or veteran engineers and managers seeking a refresher. This workshop is intended for those making decisions concerning the plant or facility.

Objectives: To provide the participants with much of the knowledge that they would obtain by longer experience in the industry – often through the agony of costly mistakes; to provide a thorough technical grounding in topics crucial to industrial refrigeration; to benefit from the experience of a group of industry experts; and to learn of the latest research and development pertinent to industrial refrigeration.

Topics to be covered: Refrigerant properties, single- and two-stage refrigeration cycles, load calculations, construction of refrigerated buildings, liquid recirculation systems, reciprocating and screw compressors, performance and selection of evaporator coils, condensers, energy conservation,

vessel sizing, liquid pumps, pipe sizing, safety, and control of both halocarbon and ammonia systems. A thread that will extend through the week is the design of an ammonia refrigeration system serving a food distribution center incorporating selected low-charge technology. Refrigeration equipment and systems used in this facility are typical of a wide variety of applications.

CEUs are available: Participants may receive a Continuing Education Certificate reporting 35 contact hours, which will provide documentation for engineering (or other) Professional Development Hour (PDH) or Continuing Education Unit (CEU) requirements. The cost for this certificate is \$10 with your registration payment.

Schedule: The workshop begins Monday, February 25 at 8:00 a.m., Eastern Standard Time, at the Crowne Plaza Charlotte Executive Park Hotel, Charlotte, North Carolina. Sessions held Monday through Thursday will run from 8:00 a.m. to 4:30 p.m. Short evening study assignments will be typical. On Friday, sessions continue to noon. Of special interest is the optional "**Quick-Start**" offered Sunday afternoon (February 24) from 3:00 p.m. to 5:30 p.m. at the Crowne Plaza Charlotte Executive Park Hotel that is recommended as a technical introduction or a refresher session concerning refrigeration fundamentals.

Workshop Sponsors: The workshop is sponsored by Kansas State University and the International Institute of Ammonia Refrigeration (IIAR), an association of manufacturers, designers, contractors and end users of industrial refrigeration equipment and systems.

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