



Akron/Canton Chapter November Meeting



Friday, November 22, 2024

Time: 12:00PM-1:00PM

Location: The K Company, Training Center

Directions to Room: Enter 2nd driveway heading south. The training room is at the end of the building on the left hand side.

Cost:

\$15 ASHRAE

Members

\$20 Non-Members

Lunch is included!

Fill out ASHRAE Membership Form and attend for free!

Application of Flammable Refrigerants

Presented by: Steve Kujak



Steve Kujak
Director of Next Generation Refrigerants Research for Trane Technologies

New societal environmental demands to control climate change are driving the development of new regulatory policies to restrict and lower the direct GWP (global warming potential) impact of F-gases. The HVAC&R industry is currently being challenged to invest significant resources to understand the best refrigerants that meet the above requirements. However, there are many uncertainties and challenges given the ever-changing global regulatory environment, within regions, country, state, and sometimes locally by city.

Safe non-flammable low toxicity F-gases allowed for an exponential increase in the standard of living of society through increased food productivity, reduction in heat related deaths, increased worker productivity and migration of people to cities and to hotter climates. The orderly transition from CFCs to HCFCs and HFCs achieved a balance between the societal environmental demands for reduced ozone depletion while continuing to improve the standard of living in developing countries and minimize the societal safety (nonflammable refrigerants) impacts for everyone.

Today designers are being asked to consider new lower direct GWP unsaturated hydrofluorocarbons (HFOs) refrigerants, some of which are slightly flammable under certain conditions, as well as revisiting the application of natural refrigerants, like carbon dioxide, ammonia, hydrocarbons, and water.

This presentation will provide an update on new lower GWP alternatives introduced into the marketplace and it will highlight some important considerations, particularly flammability, that engineers, designers, and building owners should keep in mind regarding next-generation refrigerants.

Biography:

Expertise: 30+ years of experience in refrigerant and HVACR system development.

Achievements: 60+ publications and 40+ patents in the HVAC industry.

ASHRAE Member: Since 2005, recognized with Distinguished and Exceptional Service awards.

Honors: Crosby Field Award and two-time George Briley Award winner for best technical and refrigeration papers.

Global Impact: Member of the UNEP's Refrigeration, Air-Conditioning, and Heat Pumps Technical Options Committee.

Leadership: Past Chair of ASHRAE Standard 34 on refrigerant safety and Vice Chair of AHRI 700.

Industry Roles: Former Chair of ASHRAE's Refrigeration Committee (REF-CPCC).

Personal: Holds a Bachelor's in Chemistry from UW-La Crosse, resides in Brownsville, Minnesota

RSVP: Sean Lacey - sean.lacey@aircontrolproducts.com
Please RSVP by Noon Wednesday, November 20th

Pay at the meeting with Cash, Check, or Credit Card

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