

Energy Management of Industrial Refrigeration Systems

Holiday Inn Hotel & Conference Centre
437 Prince Street, Truro

Monday, November 27, 2017

Agenda

9:00 – 9:30

Introductions

9:30 – 10:30

Fundamentals

- Refrigerants
- Pressure, temperature and enthalpy
- Refrigeration cycles

10:30 – 10:45

Break

10:45 – 12:00

Energy Use in Refrigeration Systems

- The effect of suction and discharge pressure
- Compressors
- Evaporators
- Condensers

12:00 – 12:30

Lunch

12:30 – 13:30

Energy Audit Methodology

- Refrigeration load
- Energy use variables

13:30 – 14:30

Energy Saving Opportunities

- Floating Head Pressure
- Floating Suction Pressure
- Controls and staging

14:30 – 14:40

Break

14:40 – 15:30

Energy Saving Opportunities (Continued)

- Subcooling
- Defrosts
- VFDs
- Heat Recovery

15:30 – 15:45

Break

15:45 – 16:30

Case Study / Group Discussion



Instructor Greg Scrivener is the founder and principal engineer at Cold Dynamics Ltd. based out of Edmonton, Alberta. Greg began his career as a refrigeration mechanic in 1997 and completed a BSc in Mechanical Engineering in 2011. He has gained extensive experience in the design, construction and operation of commercial and industrial refrigeration systems and refrigerated facilities. He is a member of both ASHRAE 15 and CSA B52 and has contributed significantly to the development of safety codes and standards relating to refrigeration in both Canada and the United States. His work includes engineering and design, commissioning, advanced troubleshooting, energy auditing, control sequence optimizations, safety and training.