



## Joint Training and Apprenticeship Committee

Refrigeration Workers Local 787 - O.R.A.C. Training Fund  
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### **JTAC 787's Refrigerant HFC-410A** **Safe Handling Awareness Program** *A Brief Synopsis*

#### **The intent of the HFC-410A program is:**

1. To provide the participant with the safe use and application procedures of Refrigerant HFC-410A and related components & materials
2. To provide insight into the comparisons of HCFC-22 replacement refrigerants and corresponding equipment

#### **Course Content**

Refrigerant Safety and anatomical numbering (ASHRAE 34)

Refrigerant Transfer & Storage Requirements specific to HFC-410A, including:

- Tools, Instruments & Meters
- Recovery Equipment
- Cylinder Safety & Requirements
- Refrigerant Charging Procedures
- Lubricant Requirements & Safe Handling
- Refrigerant Safe Handling Procedures (MSDS & Equipment manufacturer guidelines)

Refrigerant Terms:

- Single component Refrigerants
- Blends (Binary, Ternary)
- Temperature Glide
- Fractionation
- Dew Point
- Bubble Point
- Azeotrope
- Near Azeotrope Blends

Refrigerant Phaseout Dates

Refrigerant and equipment and Operational Comparisons HCFC-22 vs HFC-134a, HFC-407C, HFC-410A

Equipment Considerations, Design & CSA B51/B52 Requirements, including:

- Compressors
- Evaporators
- Accessories
- Condenser/Receivers
- Piping
- Expansion Devices
- Pressure Relief devices
- Safety Switches
- Oil/Lubricant
- Design and Test Pressures
- Installation and Service practices