

# Refrigeration Fundamentals and Regulations

Refrigeration can be a complex subject; however we aim to keep it as simple as we can. In this course, refrigeration will be discussed as a part of the whole intricate cooling system within a facility. The purpose of this course is to provide a comprehensive overview of refrigerants, including a look into the federal, state and local requirements pertaining to refrigerant management. The instructor will utilize lectures, visual aids, case history examinations, and facility walkthroughs to provide the most in depth look at refrigeration. Anyone who engages in or who are associated with the cooling systems at their work place should attend this course.

Duration: 8 hours

**REFRIGERANT FUNDEMENTALS**

- Chiller Operations Overview
- Cooling Loop Basics
- Heat Rejection
- Refrigerant Chemistry
- Refrigerant Applications
- The Three R's
- Industry Jargon and Definitions

**FACILITY SPECIFIC INFORMATION**

- Industrial vs. Commercial Applications
- Comfort Cooling Facilities
- Where Does Your Facility Fall
- EPA Rules and Regulations

**REFRIGERANT MANAGEMENT**

- Reporting Requirements
- Local, State & Federal
- Vendor's Management Responsibilities
- Using Software Programs for Tracking
- Refrigerant Tracking
- Threshold Levels

**HANDLING, STORAGE & SAFETY**

- DOT Regulations
- Site Allowances
- Proper Personal Protective Equipment
- Signage and Storage Areas
- Reclamation Units

**REFRIGERANT DETECTION**

- Monitoring Systems
- Installation and Functionality
- PPM Levels
- Alarm Sequences
- Safe Entrance and Egress
- First Aid

**OPERATIONS**

- Industry Best Practices
- Vendor Interactions
- Common Industry Equipment Overview