DESIGN GUIDELINE 230930
REFRIGERANT MONITORING SYSTEMS

Scope

Describes U-M requirements for leakage monitoring of refrigerant systems that must comply with ASHRAE Standard 15, including alarms and related controls

Related Sections

U-M Master Specification Sections:

MS230930 Refrigerant Detection and Alarm

U-M Standard Details:

D156535 001 0815 Refrigerant Monitor Control Diagram

General

Provide a refrigerant monitoring and ventilation system in accordance with the mechanical code and ASHRAE Standard 15 (most current edition).

Utilize U-M master specification 230930 as the basis for the specification for the refrigerant monitor. Extensive editor's notes are included in the specification to assist the A/E. Be sure to turn on hidden text and read those notes.

Utilize U-M Standard Detail 15635001 for the refrigerant monitor control requirements. Comply with the designer notes included with the detail.

Revise U-M's master specification and detail as required to be project specific.

The master specification and detail reflect U-M's basic requirements for refrigerant monitoring of low toxicity, low flammability refrigerants (ASHRAE Standard 34 safety group A1 and B1). They do not express requirements for higher toxicity/higher flammability refrigerants such as ammonia systems. In the rare circumstances such systems are being considered, notify the U-M Design Manager and meet with U-M OSEH and other U-M parties to determine specific requirements.

The supply and exhaust fans and related dampers of the refrigerant ventilation system shall be activated through hard wiring from the refrigeration monitor control panel, not through DDC controls.

Self-Contained Breathing Apparatus is normally not required since U-M has a 24/7 emergency response team with trained personnel properly fitted for SCBA.