



Response to Refrigerant Release

I. Scope and Purpose

Refrigerant systems are a variety of hazardous gases and liquids, under various pressures. The changes in the state of these refrigerants are used to relocate heat to a less objectionable area. Sulfur dioxide, ammonia, and other chemical mixtures are combined to create various refrigerants. Because of the hazards these chemicals can create, ASHRAE has issued recommendations that affect mechanical rooms. These recommendations have become part of the BOCA standard, enforced in most of the local jurisdictions. This document provides a guideline for response to large refrigerant leaks.

II. Recommended Requirements for the Protection of Workers and Tenants in Buildings

- a. Seal mechanical rooms from the rest of the building.
- b. Provide sensors that activate visual and audible alarms.
- c. Interlock alarms to shut down any equipment that produces an open flame.
- d. Initiate forced ventilation to remove the gases from the space.

III. Safety

- A. During the refrigerant alarm—or if you know that a large release has occurred—you must treat the space as *Immediately Dangerous to Life and Health (IDLH)*
- B. **DO NOT ENTER THE SPACE UNTIL IT IS CLEAR OF THESE GASES.** Unless you are equipped and have up-to-date certification in SCBA (self-contained breathing apparatus)
- C. Notification of a responsible party is advised. Most states have HAZMAT teams trained to deal with these conditions. Notify your local fire department.

IV. General Guidelines

- A. If you are not equipped with up-to-date inspected and certified SCBA, you must remain outside of affected area until a responsible party can determine that the area is safe to work in.
- B. If you do have SCBA, your task should be to shut down and isolate the leak, shut down any source of open flame, and verify that forced ventilation is running. Remember, in most cases you only have 15 to 18 minutes of air.
- C. Allow ventilation to run and test the atmosphere with the proper testing equipment for 15 minutes after the alarm has reset before entering the affected space without SCBA.