Basis of Design

The purpose of this section is to provide guidelines for the development of specifications for selecting new equipment that uses refrigerant and for the management of refrigerant from equipment that is being removed.

Overview

The production, use and handling of ozone-depleting substances such as CFCs and HCFCs are regulated by EPA. EPA prohibits individuals from knowingly venting ozone depleting compounds used as refrigerants into the atmosphere while maintaining, servicing, repairing or disposing of refrigeration equipment.

New equipment

CFC refrigerants are no longer being manufactured. Equipment that uses HFC refrigerants should be used whenever feasible. If necessary, the use of HCFC or a mix of HFC/HCFC refrigerants is currently acceptable. Production of HCHC refrigerants is being phased out; HCFC-22 refrigerant production will be prohibited after 2010 and production of all HCFC refrigerants will be banned after 2030. A complete line of equipment capable of utilizing HFC refrigerants is not expected to be readily available until HCFC refrigerants are phased out completely.

Disposal of old equipment

Most refrigeration appliances, operational or not, can be disposed of through UW Surplus Property.

For larger equipment that must be disassembled on site, specific procedures are required for removal of refrigerant.

On the Seattle campus, call the Facilities Services Refrigeration Shop at 206.685.8835 or 206.543.3010 before altering any refrigeration charge to UW equipment. Information about the company and all agents who perform the work—and their EPA certifications—must be on file at the Refrigeration Shop before work begins. Notification forms are at https://www.washington.edu/facilities/fstech/node/609.

In other locations, it is the responsibility of the contractor to ensure recovery machines, bottles, gauges and other recovery equipment all meet the required standards for evacuation levels, hydrostatic testing dates, DOT guidelines, color coding, cylinder identification and pressure ranges per Section 608 of the Clean Air Act.

Be aware that some pieces of equipment may also contain other hazardous materials which must also be managed appropriately (for example, compressors that contain oil.)