



## UCCS SAFE OPERATING PROCEDURE

### 8. SAFE HANDLING AND DISPOSAL OF CFC's

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(For assistance, please contact [Environmental Health & Safety](#))

*Chlorofluorocarbons (CFC's)*, also referred to as halogenated hydrocarbons, are any of several organic compounds composed of [chlorine](#), [fluorine](#), [hydrogen](#) and [carbon](#). CFC's are manufactured under the trade names Freon<sup>®</sup> or Halon<sup>®</sup>. CFC's neither present a fire hazard nor give off a detectable odor, and have been used extensively as aerosol-spray propellants, refrigerants, solvents, and fire-extinguishing agents. They are well suited for these and other applications because they are nontoxic and nonflammable and can be readily converted from a liquid to a gas and vice versa.

However, commercial and industrial value notwithstanding, CFC's have been determined by the federal government to pose a serious environmental threat. Studies indicate that CFC's released into the atmosphere accumulate in the stratosphere, and may have an effect on the ozone layer, which may in turn has health effects including increased incidence of skin cancer in humans and genetic damage in many organisms.

Because of a growing concern over stratospheric ozone depletion and its attendant dangers, an international ban has been imposed on the use of CFC's in aerosol-spray dispensers and most other applications; as a result CFC production has also ended.

The most common uses of CFC's on campus are in refrigeration and air conditioning units in building and vehicles, and in "clean" fire extinguishers intended for use in locations with sensitive electronic equipment or clean rooms. While the campus has made significant strides in reduction of CFC use, the phase-out of CFC containing equipment is an on-going effort. Equipment replacement will involve the use of approved replacement refrigerants and fire extinguishing agents.

Because of federal and state restrictions on atmospheric release of CFC's, nobody on campus is authorized to repair or conduct maintenance on refrigeration or air conditioning units containing CFS. Please submit a [work order](#) for any work involving refrigeration or air conditioning. If CFC refrigerants are involved, Facilities Management will contract with a certified refrigeration repair facility to prevent CFC release to atmosphere.

There are a limited number of CFC fire extinguishers located across campus. As these extinguishers are due for major maintenance they will be replaced with a suitable "green" extinguishing agent or with a CO2 extinguisher.

**Contact [EH&S](#) IMMEDIATELY (719)255-3201 if a Halon<sup>®</sup> fire extinguisher is used or damaged.**

Last reviewed by Cynthia Norton on December 10, 2015.