Ozone Depleting Substances (ODS) Management Program

**Scope:** This program is intended to guide Harvard University staff in the appropriate management practices for ozone-depleting substances (refrigerants and certain fire extinguishing agents). It applies to both the operation and maintenance of air conditioning equipment and fire suppression systems. This program also covers outside contractors that may maintain University equipment.

- **Responsibilities**
  - **Environmental Health & Safety (EH&S)**
    - Maintain ODS-containing equipment inventory in Hara and review yearly as part of the Annual Compliance Certification;
    - Maintain an inventory of EPA certified recovery equipment;
    - Maintain a list of EPA certified refrigerant service technicians;
    - Review applicable regulations, updating ODS Management Program as needed;
    - Provide technical assistant to facility managers in reviewing contractors/vendors servicing ODS-containing equipment;
    - Provide training to facility managers as needed.
  - **Building Managers**
    - Maintain ODS-containing equipment inventory in Hara. Any change, addition, or removal to the inventory shall be communicated to EH&S for updating in Hara;
    - Ensure that all technicians who perform maintenance on ODS-containing equipment are certified by EPA;
    - Maintain servicing records for appliances containing 50 or more pounds of refrigerants for five years. These records shall document date and type of service, the quantity of refrigerant added and the leak rate any time refrigerant was added to the system.
Refrigerants

- **Prohibition on Venting**
  - Under the Code of Federal Regulation 40 Part 82, individuals are prohibited from knowingly venting ODS into the atmosphere while maintaining, servicing, repairing, or disposing of appliances.

- **Refrigerant Leak**
  - Building managers with equipment having refrigerant capacity greater than 50 pounds must maintain records indicating quantity of refrigerant added during servicing and maintenance.
  - Leaks must be repaired when the appliance leaks at a rate that would release 15 percent or more of the charge over a year.
  - The leak repair regulations do not apply to equipment with refrigerant charge sizes less than 50 pounds. However, smaller equipment is not exempt from the refrigerant venting prohibition as described above.

- **Technician Certification**
  - All University technicians or Outside Contractors who perform maintenance, service, repair, or disposal that could be reasonably expected to release refrigerants into the atmosphere must be certified through EPA-approved training program and be able to provide proof of certification prior to service or repair work.

- **Safe Disposal Requirements**
  - All major ODS containing equipment-chillers must have their ODS recovered prior to dismantling. Also small units that can enter waste stream intact, such as freezers, window air conditioners shall have their refrigerant recovered prior to waste pick up.

- **Recordkeeping Requirements**
  - Technicians must keep a copy of their proof of certification at their place of business;
  - For appliances that contain 50 or more pounds of refrigerant, building managers must keep servicing records documenting the date and type of service, as well as the quantity of refrigerant added;
  - ODS purchase as well as disposal logs;
  - Copy of EPA registration record for ODS recovery/recycling equipment;
  - All records related to ODS must be maintained onsite for five years.
**Halon**

- **Prohibition on Venting**
  - Code of Federal Regulation 40 Part 82 prohibits individuals from intentionally venting of Halon during testing, maintaining, servicing, repairing, or disposing of Halon-containing equipment. Following limited exemptions exist for this rule as it applies to University facilities that use Halon containing systems as fire extinguishing means:
    - De minimis releases associated with good faith efforts to recycle or recover Halon, e.g. release of residual Halon contained in fully discharged total flooding fire extinguishing systems;
    - Release of Halons during testing of fire extinguishing systems or equipment is exempted only if the following four criteria are met: (a) systems or equipment employing suitable alternative agents are not available, (b) system or equipment testing requiring release of agent is essential to demonstrate system or equipment functionality, (c) failure of the system would pose great risk to human safety or the environment, and (d) a simulant agent cannot be used for the testing purposes.

- **Technician Training**
  - All University technicians or Outside Contractors who perform maintenance, service, repair, or disposal that could be reasonably expected to release refrigerants into the atmosphere must be certified through EPA-approved training program and be able to provide proof of certification prior to service or repair work.

- **Proper Disposal**
  - Halon and Halon-containing equipment must be properly disposed of through facilities operating in accordance with NFPA 10 and NFPA 12A standards.

- **Recordkeeping Requirements**
  - Following records should be maintained onsite for a minimum of three years:
    - Inventory of Halon containing equipment including type and quantity of Halon in the system;
    - Service maintenance and repair records including date and type of service, quantity of Halon purchased and added;
    - Halon containing equipment recycling/disposal records (Halon type and quantity and the date sent off-site and the name and address of disposal/recycling facility)
    - Technician training records.