



AIR EMISSIONS PROGRAM

EH&S Environmental Affairs oversees the air emission program for Harvard University. The program, which is based on the requirements of the US Clean Air Act regulates lab and building operations and equipment at Harvard University that contribute to air pollution. In most cases, the EPA and/or DEP regulate how equipment must be operated; establish performance specifications for regulated equipment along with administrative/recordkeeping requirements. EHSEM manages a set of Clean Air Act permits for the University and must provide regular reports and file updates when equipment is added or removed. Operating permits are typically required before installation or operation of equipment that is a source of air pollution.

Typical University building equipment that may have to be installed and operated in accordance with EPA and DEP air emission regulations include:

- Combustions Units/Boilers;
- Emergency Generators;
- CFC Containing Devices (≥ 50 lb CFC reservoir) or CFC Recovery/Recycling Equipment;
- Halon Fire Suppression Systems;
- Cooling Towers;
- Paint Spray Booths;
- Lab Hoods, and,
- Other Sources of Volatile Organic Compound Emissions

Requirements

- Notify EHSEM of any planned equipment/operational changes that affect facility air emissions including addition or removal of equipment.
- No modifications can be made without a permit review/approval.
- Ensure proper maintenance, inspection, operation of building equipment that is an air emission source in accordance with any permit limitations.
- Installation or renovation of building equipment must meet EPA and DEP equipment design standards.
- Maintain fuel use, CFC and emergency generator records.
- Ensure that only licensed technicians work on CFC-containing components of your building systems.

Responsibilities

- *Facility or Project Manager*
 - Notify EHSEM well in advance of any new combustion equipment to ensure proper permitting and registration, as necessary, including size, emissions data, etc.
 - Notify EHSEM well in advance of any equipment/operational changes that could affect facility air emission. EHSEM will assist with regulatory agencies negotiations and obtaining permits.
- *Facilities that have **boilers** larger than 3 mmbtu*



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- Maintain a malfunction and maintenance log been that includes: malfunctions and corrective actions, performance of recommended maintenance, type and description of maintenance and date and time of maintenance.
- Maintain monthly fuel logs which include: twelve months of total monthly fuel usage, verification of Sulfur content $\leq 0.3\%$ (oil fired units only).
- Post and perform annual combustion efficiency tests.
- Maintain records for five years
- **Facilities that have *emergency generators (all units)***
 - Document and post maintenance, inspection and test results at or near equipment.
 - Limit hours to 300 hours and maintain operating hours log for each unit. (Some units may require emissions tracking on a monthly basis.)
 - Maintain records for five years
- **Facilities that have *CFC containing devices with reservoir capacities ≥ 50 lbs of CFC (All Halon containing equipment is also subject to the following requirements.)***
 - Ensure employees are aware of prohibition of intentional releases of CFCs
 - Ensure only licensed personnel work on CFC-containing components and only licensed personnel purchase refrigerants
 - Ensure facility has regular leak detection and repair program
 - Maintain records that include: purchase logs, training and licensing records, EPA registration of recovery/recycling equipment, usage log and disposal records.
 - Ensure recovery and recycling equipment conform to EPA specification and notification requirements.
 - Ensure procedure is in place to notify EHSEM of refrigerant release over 100 lbs.
- **Facilities that have *Paint Booths or VOC sources (such as lab hoods)***
 - Ensure appropriate design industry standards are followed in construction and operation of paint booths, degreasers, etc.
 - Maintain 12-month rolling records that include: Material Use, MSDS and VOC content

EHSEM - Environmental Services

- Coordinate with DEP, EPA and other agencies on issues including obtaining permit or modifying existing permits, regular reports and excursion reporting.
- Providing technical information/resources and training to facility managers, lab personnel, etc.
- Assist facilities with design review for new air emission sources (e.g. boilers, generators, etc.).

Resources

- Clean Air Act Resources
- Fact Sheets: Air Quality Permitting, Chlorofluorocarbon (CFC) Recycling, Emergency Standby Engines, Large Appliance Containing Ozone-Depleting Refrigerant, ≥ 50 lbs.