Clearing (and Cleaning) the Air: Indoor Air Quality at Tufts

High quality air is an essential factor in achieving healthful and productive workplaces at Tufts. First, there are two kinds of air: indoor and outdoor. Outdoor air quality is determined by the concentration of pollutants while indoor air is determined by the concentration of contaminants. Indoor air quality is also defined by temperature, humidity, air movement, and odor.

The outdoor air in Massachusetts meets 4 of the 5 US EPA National Ambient Air Quality standards 100 percent of the year and ozone meets the standard of 0.075 ppm 96% of the year. Hence, for those offices that have operable windows, the air entering from out of doors is healthful.

In buildings without operable windows, the air quality is determined by the ventilation (HVAC) system which supplies and exhausts air from each room.

Tufts Environmental Health and Safety (TEHS) classifies all rooms at Tufts as normal hazard or high hazard with respect to indoor air quality. A high hazard room has one or several known sources of air contaminants. These rooms include laboratories, shops, art studios, mechanical rooms, kitchens, chemical/fuel storage rooms, garages in general, any rooms in which there are one or more activities that operate materials or equipment or both that generate airborne contaminants. These contaminants can be gases, vapors, dusts, fumes, mists or fibers.

TEHS staff identify all high hazard rooms or buildings and assists the faculty or staff person to control air contaminants and prevent entry into the building or adjacent buildings.

Construction and renovation projects also have the potential to generate air contaminants and TEHS staff works with facilities Services and the contractors to control air contaminants and prevent entry into the surrounding rooms, areas or adjacent buildings.

Offices, conference rooms, most classroom and lecture rooms, meeting rooms, auditoriums are normal hazard rooms. In these rooms, operable windows or mechanical ventilation systems provide high quality air with no or minimal sources of air contaminants. Tufts Facilities Services makes every effort to provide high quality air to these spaces at all times. This air meets standards for temperature, humidity and air movement as well as meeting appropriate air contaminant standards.

With the elimination of tobacco smoking, other sources of odors have become important to identify and control to government or national standards or Tufts policies. These include mold volatile chemical, human body odors and personal care products.

Many personal care products contain fragrance chemicals that some individuals find pleasant or are used to mask more objectionable odors.

However, some workers find odors unpleasant and rarely there are individuals that are highly sensitized to one or more of the chemicals in these personal care products: soap, body wash, laundry detergent, laundry softener, dryer odorants, shampoos, deodorants and the list goes on.

To address odors, workers often purchase and use room deodorizer sprays, scented masking sprays, and other devices that produce chemical vapors some of which claim to have a pleasing odor. At Tufts, any member of the Tufts community should contact Tufts Facilities Services or Tufts EHS before using aerosols, sprays, plug-in vaporizers or any chemical to improve the indoor air quality of their office or work area. High quality indoor air is the goal at Tufts.

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