



Building and Transportation Accessibility

Excerpts Compiled by *The Cleaner Indoor Air Campaign*
www.CleanerIndoorAir.org

The U.S. Access Board

Found at: www.access-board.gov/about.htm

The Access Board is an independent Federal agency devoted to accessibility for people with disabilities. Created in 1973 to ensure access to federally funded facilities, the Board is now a leading source of information on accessible design. The Board develops and maintains design criteria for the built environment, transit vehicles, telecommunications equipment, and for electronic and information technology. It also provides technical assistance and training on these requirements and on accessible design and continues to enforce accessibility standards that cover federally funded facilities.

The Board is structured to function as a coordinating body among Federal agencies and to directly represent the public, particularly people with disabilities. Half of its members are representatives from most of the Federal departments. The other half is comprised of members of the public appointed by the President, a majority of whom must have a disability.

Report on Indoor Environmental Quality Released July 22, 2005

Found at: www.access-board.gov/news/ieq.htm



A growing number of people suffer a range of debilitating physical reactions from exposures to everyday materials and chemicals found in building products, floor coverings, cleaning products, and fragrances, among others. There are those who have developed an acute sensitivity to various types of chemicals, a condition known as Multiple Chemical Sensitivity (MCS). The range and severity of reactions are as varied as the potential triggering agents. In addition, there are others who report reactions from exposures to electrical devices and frequencies, a condition referred to as Electro-Magnetic Sensitivity (EMS).

In response to these concerns, the Board sponsored a study on ways to improve indoor environmental quality for people with MCS and EMS as well as for the population generally. Conducted for the Board by the National Institute of Building Sciences (NIBS), this project brought together various stakeholders to explore issues and to develop an action plan. A copy of the resulting report is now available on the NIBS website at <http://ieq.nibs.org>. While the project was focused on commercial and public buildings, many of the issues addressed and recommendations offered are applicable in residential settings. The report includes recommendations on improving indoor environmental quality that address building products, materials, ventilation, and maintenance.

A panel organized to serve as a steering committee for the project included representation from MCS and EMS organizations, experts on indoor environmental quality, and representatives from the building industry. Panel members explored various strategies for collecting and disseminating information, selecting focus areas, increasing awareness of the issues involved, broadening participation in the project, developing recommendations for best practices, and identifying potential partners for further study and outreach.

Barriers & Issues

Fragrances - Found at: http://ieq.nibs.org/om/bi_fragrances.php

The presence of perfume, cologne, scented cleaners and other scented products contributes to poor indoor air quality and is one of the major access barriers for people with asthma and multiple chemical sensitivities. "Fragrances" are chemical compounds added to a product to give it a scent. There are approximately 3000 chemicals used in the manufacture of fragrances. Most of these chemicals are synthetic and derived from petroleum. Chemicals found in fragrance formulations include toluene, alcohols, formaldehyde, styrene, benzene, limonene, phthalates, and musk. An individual fragrance formula may contain over 100 chemicals, but their identity is protected as a trade secret. Fragrances do not have to be tested for safety before they are put on the market (2).

Exposure to fragrances can trigger asthma attacks and migraine headaches, and aggravate sinus conditions. In those who are chemically sensitive, fragrance exposures can also cause irregular heartbeat, memory loss, confusion, fatigue, and neurological, vascular, and other problems. In addition, some fragrance chemicals are implicated in causing cancer and/or damaging the liver, kidneys, and central nervous system. Fragrance chemicals can enter the body via inhalation, skin absorption, or nasal passageways. According to a 1986 U.S. House of Representatives Report:

"In 1986, the National Academy of Sciences targeted fragrances as one of the six categories of chemicals that should be given high priority for neurotoxicity testing. The other groups include insecticides, heavy metals, solvents, food additives and certain air pollutants. The report states that 95 percent of chemicals used in fragrances are synthetic compounds derived from petroleum. They include benzene derivatives, aldehydes, and many other known toxics and sensitizers, which are capable of causing cancer, birth defects, central nervous system disorders and allergic reactions." (3)

If a product label lists "fragrance" as an ingredient on the back of the label, it contains added fragrance, even if the front label says the product is "unscented" or "fragrance-free". If "fragrance" is not listed as an ingredient, it may still contain fragrance chemicals or contain natural fragrances.

The main sources of fragrances in buildings are from 1) fragrance-emitting devices (FEDS), sprays, and deodorizers, 2) other scented cleaning and maintenance products, 3) perfume; cologne; essential oils; and scented skin and hair products, cosmetics, and other personal care products, 4) clothing that has been laundered with scented detergents, fabric softeners, or dryer sheets, and 5) potpourri, incense and scented candles (even when incense or scented candles are not burning). Sometimes fragrance is added to and dispersed by a building's ventilation system.

2. Bridges, B, Fragrance: emerging health and environmental concerns, Flavour and Fragrance Journal 2002; 17: 361-371

3. Neurotoxins: At Home and the Workplace, Report by the Committee on Science and Technology, U.S. House of Representatives, Sept. 16, 1986, Report 99-827

General Recommendations

Policies - Found at: http://ieq.nibs.org/om/gr_policies.php

The O & M committee recommends the following policies be adopted in commercial and public buildings:

Fragrance-Free Policy

It is recommended that a fragrance-free policy include prohibition of fragrance-emitting devices (FEDS) and sprays; use of fragrance-free maintenance, laundry, paper and other products; restrictions on perfume, cologne, and other scented personal care products used by employees, visitors, and other occupants; and prohibitions on use of potpourri and burning incense and scented candles.

An important first step is educating staff and others about the need for and benefits of reducing or eliminating the use of fragranced products.

Recommended Actions For Facility Managers and Operations & Maintenance Staff

Recommendations for Cleaning and Disinfecting - Found at: http://ieq.nibs.org/om/ra_cleaning.php

Use fragrance-free, low-VOC cleaning products. Do not use fragrance-emitting devices (FEDS), plug-ins, or sprays; urinal or toilet blocks; or other deodorizer/re-odorizer products. Reduce odors by increasing cleaning and ventilation and/or using baking soda or zeolite to absorb odors. Do not use products containing paradichlorobenzene (21) or naphthalene, which are common ingredients in FEDS.

Do not use cleaner/disinfectant combination products. Avoid or limit the use of products containing chlorine, ammonia, quaternary ammonium, phenol, isopropyl and other alcohols, formaldehyde, and other petroleum

distillates. Do not use citrus- or pine-based products. Hydrogen peroxide-based products are the preferred disinfectants, but still should be used with caution and care. Use hot water for cleaning to reduce the need for soaps, detergents, and disinfectants.

Use disinfectants only in areas and at strengths (i.e., levels of disinfection) required by law. Check with local health department to obtain details of all legal requirements. Clean surfaces thoroughly before disinfecting. Leave disinfectants in place for the correct amount of time before wiping surfaces clean.

Audit cleaning chemicals currently in use and develop a plan to replace with safer alternatives.

Vacuum frequently and thoroughly using vacuums with HEPA filters and strong suction. If carpets must be cleaned, use steam or least toxic all-purpose cleaner or carpet cleaner that does not contain petroleum solvents. Spot clean whenever possible. Clean stains while they are fresh to avoid the need for aggressive cleaning later. Dust hard surfaces with a lint-free cloth, or with water only.

Spray cleaning products on to cloths rather than on to surfaces or into the air. Dry all washed surfaces with a dry cloth or mop to reduce chemical residue and chance of mold growth. Minimize the use of floor waxes and buffing.

Ventilate well when using cleaning products. Post signs during cleaning. Make cleaning schedule available to employees or others upon request.

Schedule heavy cleaning, repairs and maintenance during low or no-occupancy periods whenever possible. Prohibit occupant usage of cleaning chemicals except as authorized. Establish a list of least toxic, low-VOC cleaning products (and/or provide them to employees) which they can use to clean computers, erase felt pen writing on white board, and perform other similar activities.

In decorative building fountains, use the minimum amount of chlorine necessary for disinfection, avoid the use of bromine, use closed ozone water treatment systems to the maximum extent possible, and make use of newer, less-toxic disinfecting technologies as they become available.

Avoid the use of wall-mounted devices, similar to fragrance-emitting devices (FEDS), that operate automatically or by pushing a button to dispense deodorizers, disinfectants, and pesticides.

21. New Jersey Pesticide Control Regulations, New Jersey Administrative Code Title 7 Chapter 30, Subchapters 1-12 and New Jersey School Integrated Pest Management (IPM) Program, Laws and Regulations Supplement, Pesticide Control Regulations, NJAC 7:30-13, Integrated Pest Management in Schools

Resources:

BodyBurden (the pollution in people) www.ewg.org/reports/bodyburden1/findings.php

Campaign for Safe Cosmetics www.safecosmetics.org

Environmental Health Network www.ehnca.org

Environmental Working Group www.ewg.org

Fragranced Products Information Network www.fpinva.org

Indoor Environmental Quality Project http://ieq.nibs.org/ieq_project.pdf

MCS-Global www.mcs-global.org

MSC Referral Resources (doctor and legal referrals) www.mcsrr.org

No Scents Makes Sense - New Brunswick Lung Association www.nb.lung.ca/pdf/NoScentsMakeSense.pdf

Steps to Implementing a Scent-Free Policy in the Workplace <http://ieq.nibs.org/om/steps.php>

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