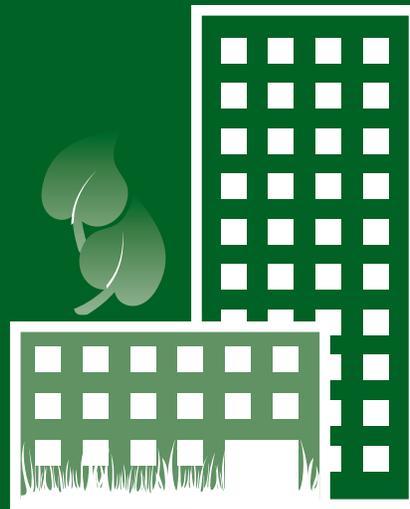


Creating Healthy Housing

Guidelines for Multi-Unit
Housing Providers



Centre for Equality Rights in Accommodation



Materials used in multi-unit housing release pollutants into the air that can be very unhealthy. These pollutants – even in small quantities – can lead to serious health problems for children, pregnant women, people with weakened immune or respiratory systems, and those living with environmental sensitivities.

The purpose of these guidelines is to help landlords, property managers, and co-operative and condominium boards of directors reduce the health impacts associated with multi-unit housing and create living environments that are as safe and “green” as possible. We hope the guidelines will assist housing providers across Ontario to keep their residents and staff healthy – and make their properties more attractive.

Why do Buildings Make us Sick?



Hazardous volatile organic compounds (VOCs) and other toxic substances are released into the air by many common building and maintenance materials, such as cleaners, paints, glues, particle board and plywood, carpeting, and air fresheners. Residents and staff also contribute to the problem by smoking and using scented personal care and laundry products. Major repairs and renovations further pollute the air, as can ventilation systems that are not working properly.

WHAT ARE ENVIRONMENTAL SENSITIVITIES?

The term environmental sensitivities describes a poorly understood chronic medical condition (or group of conditions) that potentially affects millions of Canadians. People with environmental sensitivities can become severely ill and disabled due to the presence of toxins and other contaminants in the air at levels that would not affect most people.

Having severe environmental sensitivities can be extremely debilitating, making it very difficult to find and maintain housing and employment. People may turn into prisoners of their own homes. Symptoms vary from individual to individual, but can include headaches, shortness of breath, hives, nausea, abdominal pain, fatigue, muscle and joint pain, irregular heartbeat, high blood pressure, difficulty concentrating, and anxiety and depression. Primary treatment often focuses on avoiding exposure to substances which lead to these symptoms.

Environmental sensitivities are recognized by a wide range of health, housing and human rights organizations, including Health Canada, the Canadian Health Network, the Canadian Centre for Occupational Health and Safety, the Canada Mortgage and Housing Corporation, the Canadian and Ontario Human Rights Commissions, the Ontario Medical Association and the Environmental Health Committee of the Ontario College of Family Physicians.



Guidelines for Creating Healthy Housing

The following section provides suggestions on how to make your buildings healthier. These guidelines should be used in conjunction with *Creating Healthy Multi-Unit Housing: A Resource Guide* which provides a more detailed discussion of safer building and maintenance products and procedures.

GENERAL

Consult with residents before renovating or cleaning with new building or maintenance products.

It can be difficult to predict how residents, and particularly those with environmental sensitivities, will react to a building or maintenance product. It is therefore important to consult with them before using new products. Residents with environmental sensitivities may need to test the products before they are used.

Residents with sensitivities can also be excellent resources for housing providers – make use of their knowledge.

Avoid scented, VOC-emitting cleaning products and waxes.

Products used to clean carpets, floors, windows, walls and furniture are often scented and release harmful VOCs.

Better option: use readily available unscented, less-toxic cleaning products.

Avoid air ‘fresheners’, carpet ‘fresheners’, urine pucks, and other scented odour-controlling devices.

Odour-controlling devices, such as urine pucks or air ‘fresheners’, are typically made from a variety of toxic chemicals and include strong fragrances designed to mask odours.

Better option: remove offending odours through cleaning, ventilation or absorption.

REPAIR AND RENOVATION

Emergency and scheduled repairs or renovations can significantly degrade the air quality within a building. For many residents, this work can trap them in their units or force them to move to alternate accommodation. The following guidelines suggest ways to minimize the impacts of repairs and renovations.

Install a dust/chemical barrier around any work areas and seal ductwork.

Housing providers should ensure that dust and other contaminants associated with repairs or renovations are adequately contained within the work areas.

Exhaust contaminants from work areas outside the building.

It is also important that dust and other contaminants associated with repairs and renovations are removed from the building. Use a HEPA air scrubber or a large vacuum exhausting out a sealed window opening to remove contaminants.

Provide adequate notice before any renovations or repairs take place.

Even with adequate containment and ventilation, repairs or renovations – and often major cleaning – will require some residents to make special housing arrangements while the work is underway. These residents will require ample notice before the work begins. Where housing providers are aware of residents whose health may be affected by repairs or renovations, they should consult with these residents to determine what notice period is reasonable.

Recognize that some residents, for medical reasons, will prefer not to have their individual units renovated.

For some residents, air quality problems associated with renovating their units may outweigh the benefits of the renovations.

WOOD AND COMPOSITES

Avoid particleboard, plywood and other wood composites that contain formaldehyde; avoid the use of pine or cedar.

Composite wood products such as particle board and plywood are generally not safe building products because most emit formaldehyde. Also, pine and cedar have strong scents that can trigger symptoms in people with environmental sensitivities or allergies.

Better options: seal composite wood with a low/no-VOC sealer or cover surfaces and edges with a vapour barrier such as heavy duty aluminum foil; use composite wood that does not contain formaldehyde.

Best options: solid hardwood, glass or metal.

MOISTURE CONTROL

Regularly inspect for mold growth and remove promptly with a less-toxic product such as Tri-Sodium Phosphate (TSP). Do not use chlorine bleach.

FINISHES

Avoid VOC-emitting paints, stains, varnishes and removers.

Paints, stains and varnishes (and paint and finish removers) commonly used in residential buildings are solvent-based and emit harmful VOCs.

Better options: use readily available low/no-VOC water-based paints and stains, and avoid using paint/finish removers.

Avoid carpets, vinyl and laminate flooring.

Carpets can be very toxic, as the fibres, underpadding, latex binding and various treatments all emit VOCs. Carpets also absorb pollutants and collect dust, mold and mites. Similarly, vinyl tiles, laminate flooring and their associated glues release VOCs.

Better options: If you are using carpets, make sure they are:

- made of low emission materials
- tacked/nailed rather than glued
- include no foam/rubber underpads
- vacuumed frequently with a HEPA cleaner
- steam cleaned quarterly
- not cleaned with fragranced products

Best options: use ceramic tile, brick, polished concrete or hardwood.

SPECIALTIES

Avoid the use of chemical pesticides, herbicides and fertilizers.

Most insects and rodents – even bedbugs – can be managed without the need of toxic pesticides. Similarly, there are many non-toxic approaches to lawn and garden care.



Where residents have environmental sensitivities or related conditions and cannot use a communal laundry, provide separate facilities and/or allow installation of personal use machines in units.

Communal laundry facilities in apartment buildings can be unusable for residents with environmental sensitivities or similar conditions because of the laundry detergents, fabric softeners and other products used by residents.

EQUIPMENT

Where residents have environmental sensitivities or related conditions, avoid un-vented, natural gas appliances and self-cleaning ovens.

Individuals with environmental sensitivities can rarely tolerate natural gas appliances such as gas stoves. Self cleaning ovens can also cause problems.

Better options: electric appliances.

FURNISHINGS

Avoid textile-covered furniture made from particle board, other wood composites or pine, and containing foam, rubber and/or vinyl and treated with fabric protector.

Furniture, like cabinetry, is often made of composite wood products that off-gas formaldehyde. Rubber or vinyl exteriors and fabric protectors also emit harmful VOCs, and foam padding deteriorates and releases chemical dust into the air. Textile-covered furnishings can be problematic as they absorb smoke and fragranced laundry and personal care products.

Better options: use furniture made with hardwood, metal or glass and which has been allowed to off-gas before delivery.

HEATING, VENTILATION AND AIR CONDITIONING (HVAC)

Ventilation systems have a huge impact on the air quality inside a building.

Maintain (and where necessary upgrade) corridor ventilation systems so that they are properly pressurized and provide an adequate supply of fresh air.

Corridor air systems often do not have sufficiently positive air pressure to control air transfer between units and lose fresh air to elevator shafts and stairwells. This can be a particular problem where tenants are smoking or using 'air-freshening' chemicals in their apartments.

Ensure apartment kitchen and bathroom exhaust fans are working properly.

Kitchen and bathroom exhaust fans can dilute and expel odours that enter a unit.

Ensure plumbing and electrical wall penetrations and exhaust fans in apartments are properly sealed to minimize migration of odours.

To reduce the transfer of air between units, it is important to properly seal potential "leakage" points in units, such as any spot where plumbing or electrical wires and fixtures enter the wall. These wall penetrations should be sealed with a non-toxic caulk.

Consider separately ventilating mail rooms and ensure that any recycling bins in these rooms are covered.

Mail rooms in multi-unit housing can be toxic for many residents because of the large number of flyers and newspapers (which use VOC-emitting dyes) left lying on the floor and in open garbage or recycling bins.



Seal off commercial units from the rest of the building and provide them with a separate ventilation system.

Commercial operations on the ground floors of multi-unit residential buildings can have serious impacts on the air quality within the building.

Maintain (and where necessary upgrade) indoor garage ventilation systems.

Depressurize indoor garages and install an 'air barrier' system to reduce air transfer to other parts of the building.

For obvious reasons, indoor parking garages can be a major source of pollutants in apartment buildings. Housing providers should ensure that exhaust fumes are adequately vented and not transferred to residential units.

POLICIES

Institute a no-idling rule in passenger loading and drop-off areas.

Investigate approaches to reducing the presence of tobacco smoke in buildings.

Smoking in multi-unit residential buildings can have significant health implications for residents because air contaminants – such as tobacco smoke – frequently travel between units. Housing providers should consider approaches to minimize the impact of tobacco smoke on residents, such as by limiting smoking to a designated, well-ventilated area in the building.

Institute a scent-free policy for staff and contract workers, and educate residents on the health impacts of scented personal care products.

The chemicals and fragrances associated with personal care products such as hair spray, deodorant, soap, shampoo, perfume and cologne, along with laundry detergent and fabric softeners can make hallways and other common areas toxic for many residents. Housing providers should promote scent-free environments.

In buildings with more than one elevator, designate one as scent-free.

Elevators can have particularly poor air quality because they are small, confined spaces.

Creating Healthy Living Environments: The Law

While creating healthy housing is a worthwhile goal for obvious reasons, it is also the law. Under Ontario's *Human Rights Code*, landlords and co-operative and condominium boards of directors have a legal obligation to respond to the needs of residents with disabilities, such as those with environmental sensitivities. If a resident requests changes to a building's structure or practices due to a disability, the housing provider must accommodate this request unless to do so would be almost impossible financially, or it would cause significant health or safety concerns. In the case of a person with environmental sensitivities, this could mean changing to less-toxic, unscented cleaning products, promoting a "scent-free" environment with residents and staff, and establishing new procedures with respect to renovations, maintenance and cleaning.

For more information on obligations under the *Human Rights Code*, see the Ontario Human Rights Commission's *Policy on Human Rights and Rental Housing* and *Policy and Guidelines on Disability and the Duty to Accommodate*. These are available online at: www.ohrc.on.ca.

Rather than wait for individual residents to come forward, these guidelines urge housing providers to be pro-active. By taking steps to improve the indoor environment, housing providers will not only be making their buildings more desirable, they will be reducing the likelihood of future conflict with the *Human Rights Code*.

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