



CANADIAN ARTISTS REPRESENTATION /
LE FRONT DES ARTISTES CANADIENS

ADVISORY NOTE

Warehouse Studio Health & Safety

Reprinted from the CARFAC/Toronto Artscape Inc. publication:
Doing Homework: Educating Yourself as a Warehouse Tenant

Artists living in warehouses are particularly vulnerable to health and safety risks. The Building Code requirements for industrially-zoned buildings do not impose very exacting standards from a resident's viewpoint. These health standards cover requirements such as adequate heating from mid-September through May, proper ventilation and natural lighting, drinkable water, shower or bath facilities and hot running water.

Environmental fire safety and construction standards are all substantially different from those for residential buildings. Furthermore the activities of other building tenants, whether they are artists, shops or industries, can create numerous health hazards related to fumes, flammable materials or excessive noise. This Fact Sheet should help you to identify problems and reach acceptable solutions. The Building Safety Checklist will aid you in assessing your particular situation.

CONSTRUCTION

When assessing the safety of a building's construction you should consider the floor plan, physical structures, ventilation and lighting. Look at the whole building carefully, not just the unit you are renting. General information can be obtained from your municipal department of Buildings and Inspections once you have determined what health and safety questions you have.

How the building is laid out will have a lot to do with your safety. Hallways which meander or lead to dead ends can be dangerous in a fire; routes to all exits should be clearly marked with lighted exit signs and should be free of obstacles which could trip you up during an escape. No exit doors should ever be padlocked, barricaded or blocked in any way. Active freight elevators in warehouse buildings must, by law, be periodically inspected for safety. Many of them take some skill to learn how to operate as well! All elevators must have a current license displayed inside.

Physical structures should be sound and built to protect people from danger. Railing on open stairways, balconies, flat rooftops and mezzanines (lofts) are required by the Building Code. There is also a danger of rolling out of a loft while sleeping, so a



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guardrail at lost floor level is necessary. In addition there must be at least seven (7') feet headroom both above and below the loft. Lofts may present other dangers. There have been a number of cases of law suits in Toronto due to injuries and deaths caused by people falling from improperly built structures – you may even be held liable if the loft was already there when you moved in. There have also been reports that landlords have raised the rent due to the increased square footage after a mezzanine has been built by the tenant! Consider carefully if you really need the extra space a loft provides.

Fire –resistant barriers such brick walls and concrete floors offer you better protection than more combustible materials like drywall. Self-closing metal fire doors may give you the extra time you need by containing fire to specific areas. Fire-proof (e.g. iron) escape stairs from upper floors are required by law, as are working sprinkler system. Check to ensure fire protection equipment is available and maintained: portable fire extinguishers, fire alarm systems, emergency power lighting systems, ect. In new or upgraded buildings there should be a fire enunciator panel to indicate trouble. The enunciator panel divides the building into zones, each indicated by a light on the panel. If a fire response system (e.g. a sprinkler) in a certain zone is triggered, the light will indicate the trouble area. The fire enunciator panel should be easily accessible so fire fighters can quickly determine where the trouble has originated. The company which installed the panel should have its name, phone number and date of the last inspection clearly marked on the panel.

Proper ventilation means operable windows or a mechanical ventilation system, which brings in fresh air – not contaminated recycled air. Natural light is a requirement for good health; look for sufficient window or skylights. You should also check that there is adequate lighting in halls and entranceways. You may have to visit the studio at different times to assess these features.

HAZARDOUS ENVIRONMENT

Neighboring industry studios or shops can contribute to hazardous environment. Proper storage of flammable materials, high combustible loads, noxious fumes and excessive noise should be taken into consideration. Operational smoke stacks near the windows of a unit could make living and working unbearable and dangerous to your health. Many warehouses are also located next to highways, railroads or high-tension wires. You will only be able to gauge the extent of many of these hazards by repeated visits to the studio at different times.

Asbestos is a flaky or fluffy grey or brownish-green material that can break up into a powder form. It is a known carcinogen that was once commonly used as an insulating material. It may still be found wrapped around pipes or in ceilings. Since it is a loose material it would have some kind of fabric wrapped around it. If you think you have found asbestos in your space do not touch or disturb it in any way (the dust you will stir up is particularly dangerous). Call Environmental Protection Office of the Department of Public Health for more information. Some warehouse buildings, or the property surrounding them, may contain PCBs (toxic waste). This material cannot be safely

moved from the once-industrial area and safe processes to “clean” contaminated waste are still being tested. By law PCBs must be stored in government- approved canisters on the property.

FIRE SAFETY IN YOUR STUDIO

There are a number of things to look at when assessing and improving the fire safety of your studio. Below are listed some of the simple steps you can take that would make a great difference in the event of a fire.

Fire Escape Plan

There should be a fire escape plan posted in obvious places in your building, clearly showing the most direct exits from that particular pint. You can make such a plan yourself for your own space. Make a map of the floor you are on, make the location of all the exits (including open able window) and plot you possible escape routes. These routes must be kept clear of debris and obstructions. Bicycles, garbage bags or even bots on a mat can trip you or other tenants trying to escape from fire.

Make sure that fire exits have not been barricaded blocked ore padlocked. Also try to ensure that fire and exit doors in your building are kept closed at all times. When fire doors are left open draughts coming through them can provide fire with the extra oxygen it needs to burn harder; this can quickly turn a small fire into an inferno. Purchase a chain ladder, which can be hooked over a window or a knotted rope, which must be anchored to the floor for a possible escape route. Keeping a working flashlight nearby is also a good idea. Make sure your studio number is clearly marked on the door of the unit and the building’s floors are clearly labeled at each stair level to assist emergency crews.

Electrical

The electrical service to your studio must support the requirements of the appliances and tools you use. Check electrical cords and pugs regularly for damage and wear. It is hazardous to use an extension cord directly beneath a floor covering or through a doorway. Extension cords should not be used for “permanent” wiring needs. If there are not enough outlets for the appliances you use, you should have more installed. Check to make sure the service can support adding more outlets.

Heating Appliances

Furnaces and heaters should be cleaned and checked before each heating season. Portable heaters must be kept at least three feet from combustible materials. They also need oxygen to operate so they should have adequate ventilation- at least three feet of space all around.

Smoke Alarms and Detectors

Most of the deaths in fires happen in spaces, which do not have smoke alarms. An alarm will alert you before smoke and fire build, giving you time to get out. You should provide adequate smoke detectors in your space and keep them in working order. Put

at least one in each separate area of your space, installed near the ceiling since smoke rises. Check the alarm packaging to determine the square footage it will cover. Test the alarm monthly by putting a lit candle match or cigarette up close to the detector so that the smoke drifts into the unit. If the alarm does not sound, replace the battery. Batteries should be replaced at least annually.

Fire Extinguisher

Make sure you have a Class ABC multipurpose dry chemical fire extinguisher in your studio. This type of extinguisher is suitable for combustibles such as paper and wood as well as solvent grease and electrical fires. Keep the fire extinguisher readily available near the exit and close to the fire hazard area but far enough away so that you can safely reach it in the event of a fire.

Smoking

Never smoke near your work or storage area. Don't even smoke with your work clothes on in case you have spilled some flammable solvent on them. Incidentally, Toronto City By-laws prevent smoking in the workplace, which applies to industrially – zoned buildings – but will only be enforced if there are complaints.

Storage of Flammables

Solvents have specific “flash points” – a measure of how quickly they will ignite. Those with flash points at or near room temperature are particularly dangerous. For example, turpentine with a flash point of 35° C (95°F) could ignite if kept in direct sunlight or too near a radiant heat source. Store all flammable liquids, pressurized aerosol cans, solvents and adhesives in clearly labeled, approved containers in well-ventilated areas away from children, sparks and heats. Don't store combustible items like paper and wood near flammables. Keep only minimal amounts of flammables required for current work in your studio. Remember that rags used for flammable liquids are also flammable and must be stored in proper oily waste disposal containers. If you use large quantities of flammable/combustible liquids, they should be stored in approved flammable storage cabinets, which prevent the contents from igniting for at least ten minutes in case of fire.

Disposal of Hazardous Materials and Goods

Never put hazardous wastes down the drain or toilet, in the sewer or out with your regular garbage. There is a risk of fire evaporation from other drains and contamination of water supplies. Hazardous chemicals, flammables and toxic waste must be brought to a waste disposal site. This includes aerosol cans, bleach and batteries as well as more obvious materials such as turpentine and acetone.

ART MATERIALS SAFETY

Many art materials commonly used today can be dangerous and /or toxic, especially if handled improperly. Studies show that artists may actually be at greater risk than industrial workers using similar materials. Artists often work for longer periods of time

and live and work in the same space. They may also be less likely to take proper safety precautions.

Get to know your materials and how to protect your own health and safety of others. Toxic materials can enter the body through inhalation, skin absorption and ingestion. Illness can manifest itself in a number of ways from immediate reactions like nausea, headaches and dizziness, to asthma, organ damage and cancer. To assess your level of risk you must consider the toxicity of the material, how long and how often you have been exposed to a hazard, your personal susceptibility and the combination of toxins you use (including prescription, over-the-counter and other drugs).

Each of us is ultimately responsible for our own health. Don't expect that just because a product is on the market it is safe. Until the 1970's asbestos and silica (both suspected of cause in cancer and known to cause respiratory diseases) were found in papier-mâché mixes used in some public schools! They can still be found in some dry clays and talc. The Hazardous Products Act requires product labels, which include hazard symbols, precautionary measures and first aid treatment. Most products that are labeled carry only the minimum required warning. Even the trusty "non-toxic" label is misleading since it applies only to acute hazards.

Material Safety Data Sheets

You can also write to the manufacturer of a product for the Material Safety Data Sheets (MSDS) listing the contents. Manufacturers have to provide these to people in the industry who are handling their products. An MSDS is a detailed specifications sheet listing the ingredients of the product; specifying which are toxic; what dangers they present; how to protect yourself; and what to do if you drink, inhale or splash the product in your eyes or on your skin. To obtain one, hone the manufacturer or Canadian supplier of your product. The law does not require time to release an MSDS to consumers but most do in the interest of customer relations.

High Risk Activities

The following activities undertaken by you or a neighbor are examples of those, which should be considered dangerous, and safety precautions should be evaluated carefully:

- *Ceramics or enamel kilns* which are not properly vented to the outside.
- *Lead used in any form*-molten, beaten or powdered.
- *Photography darkrooms*, which should be properly power-exhausted to the outside with a minimum of ten room air exchanges per hour. A large majority of photographic darkrooms have inadequate exhaust ventilation and photographers, and sometimes their families, suffer accordingly.
- *Solvents* most commonly used during silkscreen printing. Solvents used in oil painting also hold risks for users, although exposure tends to be less than in printmaking. Solvent vapors are not only toxic to inhale but often extremely flammable- which is dangerous in living spaces.
- *Spraying of any kind*. Fine droplets of mist can be easily inhaled, as can the solvents used in most sprayed materials. Living above an auto body shop where regular spraying is done is one of the most hazardous practices possible- apart

from actually doing the spraying yourself without proper air-supplied protective equipment.

- *Welding*, which produces toxic fumes and gases as well as high fire risk. Serious safety precautions should be taken, particularly in old wooden buildings.
- *Toxic dusts and powders*, which can be inhaled by you or anybody around you, can settle on surfaces and be picked up later and ingested, can contaminate living spaces and everything in them.

Urgent Recommendations

- ensure a good supply of fresh air at all times
- find out about your materials and processes
- read labels and ask you suppliers questions read books on the subject
- monitor you health and that of those sharing your space
- realize that your quality of life and that of those around you may depend on how seriously you take health and safety issues

BUILDING SAFETY CHECKLIST	PERSONAL SAFETY CHECKLIST
<ul style="list-style-type: none"> <input type="checkbox"/> building door locks/security system <input type="checkbox"/> properly lit entrance way/hallways <input type="checkbox"/> hallways without many turns <input type="checkbox"/> no dead-end hallways <input type="checkbox"/> exit signs lighted 	<ul style="list-style-type: none"> <input type="checkbox"/> fire escape plan <input type="checkbox"/> chain ladder or anchored knotted rope for window escape <input type="checkbox"/> working smoke detectors <input type="checkbox"/> ABC type fire extinguisher <input type="checkbox"/> flashlight
<ul style="list-style-type: none"> <input type="checkbox"/> fire-resistant construction <input type="checkbox"/> fire-proof self-closing doors (never propped) <input type="checkbox"/> fire escape stairs exits not locked <input type="checkbox"/> working sprinkler service (check for panel) <input type="checkbox"/> smoke/fire alarm system <input type="checkbox"/> portable fire extinguishers <input type="checkbox"/> other fire protection equipment maintained 	<ul style="list-style-type: none"> <input type="checkbox"/> work area & hazardous materials storage space as far as possible for heat sources <input type="checkbox"/> smoking, eating , sleeping areas separate form work area, especially areas where flammables and toxic materials used <input type="checkbox"/> minimum amount of flammables stored <input type="checkbox"/> safety-approved labeled containers for strong hazardous materials <input type="checkbox"/> use fire-retardant materials around flammables <input type="checkbox"/> use least flammable liquids and less hazardous processes and materials whenever possible
<ul style="list-style-type: none"> <input type="checkbox"/> elevators have current license displayed <input type="checkbox"/> rigid guardrail at least 42 inches (3 1/2 feet) high on any balcony/accessible rooftop <input type="checkbox"/> direct access from personal unit to hallway (i.e. not through another unit) 	<ul style="list-style-type: none"> <input type="checkbox"/> ventilation adequate for materials and

<ul style="list-style-type: none"> ❑ window doors and stairs in good repair ❑ handrails on open stairs ❑ windows/skylights open directly to outside air ore mechanical ventilation/natural light 	<p>processes</p> <ul style="list-style-type: none"> ❑ appropriate dress and protection for safe materials handling: <ul style="list-style-type: none"> -protective clothing reserved for studio - gloves for heat & chemical protection - eye and face protection against impact radiation and splashing chemicals - proper respirators for each type
<ul style="list-style-type: none"> ❑ sprinklers not blocked by lofts/construction ❑ handrail on loft stairs ❑ loft has at least seven feet (7') of headroom both above and below ❑ 3 ½ foot high guardrails around loft and a rail at loft floor level to prevent falling out 	<p>of</p> <p>hazard</p> <ul style="list-style-type: none"> - dust masks - hearing protectors
<ul style="list-style-type: none"> ❑ no hazardous building materials (i.e. asbestos) ❑ other tenants' uses surrounding industry and environment tolerable & relatively harmless ❑ appropriate storage and disposal of hazardous waste materials ❑ noises level tolerable ❑ sufficient and safe electrical service ❑ existing phone jacks in the unit ❑ enough natural light ❑ adequate ventilation 	

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