PSAC Awareness Kit on Scent-free Environments

Chemical Sensitivities – Environmental Illness

Protecting our members

Public Service Alliance of Canada
Alliance de la Fonction publique du Canada

Programs Section | Membership Programs Branch | 2006

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PSAC Policy Statement on Scent-Free Environments

Many individuals experience various degrees of physical effects from exposure to scented products, such as perfumes and colognes. Sometimes, it might be a headache or nausea when passing by a department store's perfume counter or riding in an elevator with someone wearing a certain fragrance. However, a growing number of people are developing more severe reactions to these and many other types of products and chemicals.

This condition is known as multiple chemical sensitivities (MCS) or Environmental Illness (EI). In this Policy, this condition will be referred to as "Environmental Disabilities". Environmental Disabilities affect people who have developed an acute sensitivity to various chemicals in the environment. Persons with these disabilities experience a range of debilitating physical reactions, some even life-threatening, to chemicals used in a variety of products, including fragrances and personal care products; deodorizers and cleaners; pesticides, wall and floor coverings; and building materials.

It's a complex issue with a variety of triggering agents and physical reactions. Different people are affected by different products in different ways. The common factor is the physical reaction. It can be very strong and severely disabling.

In Canada today, more than one in four individuals suffers from respiratory disease. At least 40% of these individuals experience allergic triggers to their disease. Medical evidence clearly shows that scented products are harmful to the health of sensitive individuals. In sufficient concentrations, scented products may be harmful to those with allergies, environmental sensitivities or chronic heart or lung diseases.

The Public Service Alliance of Canada is committed to ensuring that all members with disabilities are able to effectively participate in order to contribute to the organization's mandate.

In this regard, the Alliance recognizes that accessibility is an essential requirement for the participation of members with environmental disabilities.

In consideration for the health of our colleagues who may suffer from environmental disabilities, and with the goal of eliminating a contaminant from the air, **the PSAC requests that all participants attending any union function refrain from using scented products. These include scented perfumes, colognes, lotions, hairsprays, deodorants and other products promoted by the fragrance industry.**

We believe that this policy will provide a more comfortable environment for all and, in the larger scheme of things, help promote greater awareness of environmental disability.

There are many ways to help eliminate workplace barriers to fellow workers who have environmental disabilities and to make it easier for them to work productively.

Remember that although environmental disabilities may be non-evident, they are required by law to be accommodated like any other disability.

The policy also requires that, before any union event or function, **anyone suffering from environmental disabilities needs to self-identify with those organizing the meeting, course or event.**

A participant who notices a problem is required to address the person in a cordial and respectful manner. Any unresolved issues would then be brought to the attention of the organizers who will investigate and attempt to find suitable accommodation up to the point of undue hardship.

Our scent-free policy statement should be communicated in advance to all participants.

By working together we can create healthier environments for ALL, and accommodate the needs of persons who have environmental disabilities.

This policy should be a complement to our three other publications relating to this issue:

- PSAC Awareness Kit on Scent-Free Environments (2006)
- PSAC Booklet on Multiple Chemical Sensitivity (MCS) at Work (1997)
- PSAC Duty to Accommodate Booklet: A PSAC Guide for Local Representatives

They are information guides to assist members in understanding better the issue.

A PSAC video entitled “It’s Not in Your Head” was also produced a few years ago. This video offers information on the complexities of MCS and on how to help members suffering from environmental disabilities.

You are encouraged to distribute to all employees copies of these PSAC publications.

(Adopted at the NBoD – January 2006)

No Perfume Means Healthier Air!

DID YOU KNOW

Perfume today is not made from flowers
but from toxic chemicals.

More than 4,000 chemicals are used in fragrances.
Of these, 95% are made from petroleum.

Chemicals permeate modern life.

The lung is the major entry organ for chemicals.

Airborne chemicals are the major source
of chemical exposure today.

Many chemicals impair brain function.

Many believe cancer to be a chemically
caused epidemic.

Multiple Chemical Sensitivity

(Environmental Illness)

Multiple Chemical Sensitivity (MCS) is basically a subset of Environmental Illness (EI), which is caused by living in a toxic world.

The chemicals that were synthesized after World War II (including, pesticides, synthetic fragrances, cleaning products, detergents, etc.) are mostly "petrochemicals" (petroleum based) and are quite toxic to humans. There have been virtually no studies done on the majority of these chemicals to see how they affect humans. The industry just placed the chemicals in the environment with the assumption that they are "safe, till proven toxic", instead of the other way around. One of the biggest offenders is **PERFUME** and other scented products.

Did you know that many of the ingredients in your perfume are the exact same ingredients found in GASOLINE??!! They can put any number of chemicals in fragrance without revealing what those chemicals are or how they affect humans.

EI and/or MCS can be the result of long term exposure to low levels of hazardous substances such as daily exposure to poor indoor air quality. It can also be due to chronic, low level exposure, such as a move into a brand new office with significant emissions of volatile organic compounds from the building materials, furniture and carpets. Finally it can result from a single overwhelming exposure such as a chemical spill.

Fragrance Materials Have a Long History of Relatively Safe Use

Right?

It is true that fragrances have been used for centuries. However, until the late 1860s virtually all fragrance materials were obtained from plant and animal sources. Though often concentrated through distillation, the materials contained were close to that found in nature. No one chemical was found in isolation. Companion chemicals found together often had synergistic and modifying effects.

The majority of modern fragrance materials are synthesized from petroleum products. Many are not found in nature. There is no long history of use. The materials that are obtained from plant material are often extracted as isolates. This means individual chemicals rather than the complex mixtures found in nature are used. History of use no longer applies as the action of individual chemicals may be far different than in mixtures.

The Medical Debate

Physicians solve problems of human disease by fitting a patient's symptoms, physical signs and laboratory abnormalities to the template of a known disease or disorder. Such differential diagnosis is a pattern-fitting problem and depends on a hierarchy of similarities and differences.

Public health and environmental enforcement agencies (Department of Labour, Worker's Compensation Boards) tend to be "exposure-driven"; they start with exposure in investigating human health hazards, in contrast to physicians who are disease-oriented. Statutes and rules enforced focus on chemical agents and established "permissible exposure limits". In this type of approach, effects on highly sensitive humans, functioning like the canaries in coal mines, are examined only after evaluation of the exposure evidence.

MCS does not correspond to the classic definition of an occupational disease which establishes a link between a specific disease and a specific exposure, as is the case of asbestosis and asbestos exposure. A different approach must therefore be used to study the disease.

There is not a single known symptom or definite test which allows the identification of an MCS diagnosis. The only sure element a physician can rely on is the person's environmental and medical history, combined with routine laboratory tests, which are intended to exclude other diagnoses.

Depending on the specialization of the physician consulted, persons with MCS may have to undergo different tests in order to medically document their case, identify the cause or causes and the physiological damage and symptoms, as well as to determine an appropriate treatment. These tests may include allergy tests, different blood tests, toxic chemical analysis, brain scan and so on.

It is up to the MCS sufferers, in consultation with their supportive physician, to decide which tests they should undergo and which treatment is the most helpful.

The key message is that some chemicals do injure people to varying degree of severity. They are suffering from a chemical injury to the brain, the most sensitive organ for injury from chemicals. Evidence abounds that chemical brain injury is common and generally misdiagnosed.

Physicians are not exactly lining-up to be in the forefront of this medical debate. Finding a supportive physician is essential but probably the most difficult challenge of all.

As long as your doctor stands by you, the applicable legislation, especially human rights legislation and employment laws, will generally support your claim.

What is it about Multiple Chemical Sensitivity that brings out the best and the worst in people? Simply put, MCS challenges the way we run our world. It challenges the chemical industry the way cancer did the tobacco industry. Both brought their products to market before their safety was established and both have to face the fact that these products are not, and never will be, safe.

EI/MCS – Women And Health

A recent review of several studies revealed a highly consistent ratio of women to men of approximately 4:1, with an average age of onset in the fourth decade.

It's a well established fact that medical research has historically focused on men. Historically, women have not been treated kindly by the established medical profession as health-care providers or as subjects of medical research. In fact, when researchers look at diseases affecting both men and women, many study only males and later apply the results to women.

Permissible exposure limits are often established in the same manner. Synergistic properties of chemicals used in combination with each other are not well known and most experts can only extrapolate acceptable human exposure.

Workers' Compensation Boards

Workers' Compensation Boards have been very reluctant in approving these types of cases. Making the link between occupational exposure, the onset of symptoms and the severity of the illness is commonly difficult in almost every case, but this is especially true with EI/MCS.

Compensation authorities determine whether a disabling condition is the result of an occupational disease, based on the medical and employer reports. Benefits to be provided are determined accordingly. Up to now, most (if not all) MCS claims have been denied by WCB at the first level of decision but some members with MCS have won appeals at the tribunal stage.

The chronic exposure to "sub toxic" concentrations and any permanent disability award will prove to be very difficult to prove to the satisfaction of any Workers' Compensation Board.

Permissible Exposure Limits

Most environmental tests are exposure-driven based on permissible exposure limits for specific chemicals. This approach involves limitations often ignored by the public. For example, indoor air quality experts often use the expression: “Human health effect would appear to be minimal”. This statement can be misleading. Consider the following exceptions:

- Occupational exposure limits exist to serve one main purpose: protect workers from excessive exposure to toxic chemicals in the workplace.
- They were designed for healthy adults, usually for exposure duration of a day's work shift – 8 hours.
- They were not meant to be used for protection of the public, since the general public includes sensitive groups such as the very young and very old, people with respiratory diseases and other illnesses, and people who are hypersensitive to some chemicals.
- Occupational exposure limits were also not designed to compare toxicity of chemicals, or to be the fine line between "safe" and "unsafe."
- Most of the testing for permissible exposure limits is done using very few women (if any) and test subjects are often young.
- Some researchers contend that certain chemicals can affect immunity, significantly increasing an individual's susceptibility to disease, in some cases causing hypersensitivity reactions, autoimmunity, or immunosuppression.
- Age, genetics, pre-existing disease, lifestyle, diet, drugs, or stress may compound the effects of chemical exposures to further compromise immune function and increase the chance of disease including chemical sensitivities.
- EI/MCS victims suffer from a disorder most often associated with the immune system and characterized by multi-organ symptoms in response to low level chemical exposures that are considered safe for the general population (“sub toxic" concentrations).

Chemicals and Perfumes

Phthalates are one of the most ubiquitous man made substances in the environment. They are found in everything from vinyl flooring to cosmetics and toys. Their popularity stems from the fact that the chemical's molecules easily slip and slide past each other, making the materials pliable.

Phthalates

A recent 2003 U.S. study established that a group of common chemicals found in indoor air, some perfumes and plastic materials may be more prevalent and dangerous than previously thought especially with pregnant women and infants.

New research on the substances, called phthalates, finds that at least one type can disrupt the human hormone system. It could put pregnant women at risk for delivering premature babies, damaging sperm in some men, and harming reproductive systems of children.

Recent studies also refute the notion that humans are only exposed to phthalates orally; the studies have established that indoor exposure to the chemical is more widespread than previously thought and that modest levels of some phthalates can be harmful.

A recent study concluded that an average person consumes 5.8 milligrams of phthalates daily. That is almost a milligram higher than the acceptable daily dose assigned by the U.S. Environmental Protection Agency.

Because phthalates have been detected in substantial doses in the human body, they are now among the most closely studied chemicals. Concern over phthalates and their health effects has been so strong that the chemical has been banned from the manufacture of many toys in Europe, with some toy makers in the United States following suit.

In Canada, the Health Canada Cosmetic Notification System serves as a watchdog which ensures that cosmetic products sold in Canada do not contain dibutyl phthalate (DBP) in excess of 10%. Following evaluation under CEPA (the *Canadian Environmental Protection Act*), the Ministers of Health and Environment have declared this substance non toxic to human health and the environment.

Furthermore, the Cosmetic Ingredient Review Panel, an independent American Expert Scientific Committee, concluded in 1985 that DBP is safe for topical application when used in cosmetics at concentrations of less than 10%. In November 2000, the European Chemical Bureau of the European Commission identified no concern for consumers using DBP products under currently applied risk reduction measures. Based on these, Health Canada sees no reason to stop using cosmetic products containing DBP and bought in Canada.

In a follow-up study, Health Canada confirmed that, on the basis of available data, dibutyl phthalate is not entering the environment in a quantity or concentration or under conditions that may constitute a danger to human life or health.

Others Disagree

Three studies, published in 2003 by the National Institute of Environment Health Sciences, measured the effects of phthalate exposure in humans.

One study found that phthalate exposure in foetuses may contribute to premature birth. Of 84 infants in that study, scientists found 88 percent had phthalates in their blood. The study also cited reports that a particular kind of phthalate – diethylhexyl phthalate or DEHP – can inflame the uterus of expectant mothers.

A second study showed that adult men are also at risk from phthalate exposure. The study found a correlation between phthalate exposure and damaged DNA in sperm in 168 men studied at the fertility clinic at Massachusetts General Hospital.

A third study, released last November, established that all women who participated in a phthalate study showed traces of the chemical in their urine and that exposure came through inhalation.

A separate study, by the Silent Spring Institute, which sought to find out why breast-cancer rates are higher on Cape Cod than in other parts of Massachusetts, established that phthalates were present in high concentrations in the indoor air of all 120 homes tested.

Those studies counter the generally held belief among scientists that humans only ingest phthalates orally, topically or through some medical procedures.

DEHP, the most toxic form of phthalate, has been found in high concentrations in medical tubing and intravenous bags. DEHP is well known for leaching from the tubing, especially when coming into contact with liquids that have a high fat content.

Studies on what happens to the reproductive development in infants who have been exposed to phthalates are few. Scientists are just now beginning to grapple with the fact that, in some cases, phthalate exposure may have little effect on a parent but may cause abnormalities in the reproductive organs of their male children. Some scientists were quoted as saying: “We simply don’t know if the children are being harmed”.

DEHP phthalates are commonly found in perfume and fragrances, according to an analysis published by the Environment Working Group, a non-profit research organization based in Washington, D.C., that has studied the chemical.

Phthalates are used in fragrances to make them last longer, although consumers will not find the chemical listed on fragrance packaging since the U.S. Food and Drug Administration does not require manufacturers to list phthalate as an ingredient. DEHP use in fragrances was banned by the European Union in 2000.

The phthalates group of chemicals is so widely used in cosmetic products that they were found in 52 of 72 products tested, including 9 of 14 deodorants and 6 of 7 hair gels tested in the published study.
Despite the recent studies, scientists agree that more research needs to be done on the effect of phthalates on humans.

Chemical industry scientists say phthalates are safe and exist well within acceptable levels in most products. They claim that phthalates have been used for 50 years with no health concerns. In fact, phthalates have been a blessing to the medical industry for allowing easier use of blood bags and blood transfusions – use that was once hindered by the fragility of glass.

We can expect wide-ranging studies on the effects of phthalates over the next few years.

Greenpeace Investigation of Chemicals in Perfumes (2005)

The goal of Greenpeace International investigation was to quantify the use of two groups of chemicals – phthalates and synthetic musks – in a random selection of perfume brands. Greenpeace commissioned a laboratory to test 36 brands of eau de toilette and eau de parfum for levels of the two chemical groups.

The results confirm that some synthetic musks, most notably the polycyclic musks galaxolide (HHCB) and tonalide (AHTN), and some phthalates, especially diethyl phthalate (DEP), are widely used by the perfume industry. This suggests that regular use of perfumes could substantially contribute to individuals' daily exposure to these chemicals, some of which have already been recorded as contaminants in blood and breast milk. Furthermore, there is increasing evidence of potential endocrine-disrupting properties for certain musk compounds.

In this context, these results reinforce the need for legislation that will drive the replacement of hazardous substances with safer alternatives.

Chemicals In Perfumes A Health And Environmental Concern

Two groups of hazardous or potentially hazardous chemicals commonly used in perfumes and other personal care products are phthalate esters, commonly known as phthalates, and synthetic (artificial or man-made) musks. As a consequence of the extensive and high-volume use of these chemicals in products, they have become widely distributed through both the natural and the urban environment.

The ubiquitous presence of synthetic musks and phthalates in the environment and in consumer products, many of which are very slow to break down, results in continuous background exposures with unknown long-term consequences. At the same time, personal care products that we apply to our skin, including perfumes, provide a direct route of repeated exposure to relatively concentrated doses and may be expected to contribute substantially to our overall exposure to these chemicals.

Although data remain limited, there is evidence to suggest that the phthalates and synthetic musks in common use may present us with diverse health and environmental hazards. New evidence is emerging all the time.

Diethyl Phthalate (DEP) And Other Phthalate Esters

Diethyl phthalate (DEP) is one of many phthalate esters in common use. It is used in particular in a wide range of cosmetic and other personal care products, primarily as a solvent and vehicle for fragrances and other cosmetic ingredients and as an alcohol denaturant [making the alcohol unfit to drink] (SCCNFP 2003). Although DEP has generally been considered as having a low overall toxicity and does not appear to exhibit the same level of reproductive toxicity displayed by certain

other phthalates (notably DEHP), newly emerging evidence raises significant concerns regarding its safety.

Given their widespread use in consumer goods, exposure to phthalates can occur through a variety of routes (Koo et al. 2002, Fromme et al. 2004). Since DEP is an ingredient of perfumes and other personal care products, it appears that inhalation may be a significant route of exposure (Adibi et al. 2003). Absorption through the skin is also likely to be a contributory factor.

Although DEP is rapidly metabolised in the human body to its monoester form (MEP) and does not appear to accumulate in tissues, it is clear that when applied to the skin DEP rapidly penetrates it and becomes widely distributed around the body following each exposure (WHO 2003). MEP has been reported at up to 30 times higher concentrations in human urine than metabolites of any other phthalate ester (Duty et al. 2003).

One study (Silva et al. 2004) has recently shown that, whereas levels of certain other phthalate metabolites excreted in the urine are generally higher in children than in adults, levels of MEP are commonly twice as high in young adults as they are in children, with the highest levels of all in women, possibly reflecting differences in frequency of use of personal care products, such as hair care products, cosmetics and perfumes.

The long-term effects of such repeated direct exposure to DEP are not well understood. However, some recent evidence indicates that changes to the DNA of sperm cells are more prevalent in individuals who also show high levels of MEP in their urine (Duty et al. 2003); further studies are necessary to determine if there is a causal relationship.

More recently still, research has identified a possible link between exposure to two phthalate metabolites, namely MEP and MBP (monobutyl phthalate), measured in urine samples, and restricted lung function in adult men (Hoppin et al. 2004).

A number of other phthalates identified in the perfume samples, albeit at far lower levels than DEP, are also of toxicological concern. Of particular note are dibutyl phthalate (DBP) and diethylhexyl phthalate (DEHP), both of which are classified in the EU as toxic to reproduction (Category 2) (EU 2003).

Synthetic Musks

Synthetic musks are man-made aromatic compounds that are used in place of more expensive natural musks. They are added to many everyday products, including laundry detergents, air fresheners, hand creams, soaps and perfumes (OSPAR 2004).

The term synthetic musks encompass three broad chemical groups: nitromusks, polycyclic musks and macrocyclic musks. Due to toxicological concerns, nitromusk production has been in decline in Europe for a number of years. Only two nitromusks are of importance today: musk xylene (MX) and musk ketone (MK). These, along with two polycyclic musks, galaxolide (HHCB) and tonalide (AHTN) account for 95% of the European market for synthetic musks (OSPAR 2004).

Synthetic musks are environmentally persistent chemicals and, as a consequence of this and their extensive use in products, have become widely distributed in the environment, especially in aquatic and marine systems (Eschke 2004, Leonards and de Boer 2004, Bester et al. 1998) but also in the atmosphere (Peters 2003) and inside buildings (Kallenborn and Gatermann 2004).

Perfumes may bring us pleasure, but we could enjoy them even more if we knew they were free of substances that could build up in the environment and in our bodies and even have the potential to affect our health.

A study commissioned by Greenpeace Netherlands of chemicals in rainwater within the Netherlands found synthetic musk compounds in virtually all rainwater samples (Peters 2003). While HHCB was found to be distributed fairly evenly, there was a clear peak in levels of AHTN in the centre of the country. This peak coincided with the location of a chemical company that produces synthetic musk compounds.

Significantly, the nitromusk musk ambrette (MA), which has been banned in the EU since 1995, was found at 34% of the rainwater collection points, suggesting long-term environmental persistence.

Synthetic musks can concentrate in living tissues; indeed, musks used in perfumes have also been found contaminating human blood and breast milk (Rimkus and Wolf 1996, Peters 2004). There is increasing evidence emerging that some nitromusks and polycyclic musks, including those commonly used in perfumes, may be capable (either as parent compounds or as metabolites) of interfering with hormone communication systems in fish (Schreurs et al. 2004), amphibians (Dietrich and Hitzfeld 2004) and mammals (Bitsch et al. 2002, Schreurs et al. 2002), and may exacerbate the effects of exposure to other toxic chemicals (Smital et al. 2004).

Although the estrogenic activity exhibited by HHCB and AHTN in mammals is relatively weak, anti-estrogenic effects have been observed for the same compounds at concentrations more than 100 times lower (Schreurs et al. 2002). Statistical associations have been reported between MX and MK levels in the blood and the occurrence of certain gynaecological conditions in women (Eisenhardt et al. 2001), though a causal relationship has not been established.

Perfumes may bring us pleasure, but we could enjoy them even more if we knew they were free of substances that could build up in the environment and in our bodies and even have the potential to affect our health. Consumers wishing to avoid these substances face a difficult task, since manufacturers rarely label phthalates and synthetic musks on the packaging.

Not Just In A Perfume Bottle

There is a dramatic increase in people who are made sick by fragrances because so many products are now scented. Babies and children are even more vulnerable, as are people who are trying to recover from cancer and other illnesses.

Chemical fragrances are present in most laundry detergents, fabric softeners, anti-cling products, dishwashing liquids, disinfectants, soaps, shampoos and other hair products, deodorants, cosmetics, suntan/sunscreen lotions, aftershaves, colognes, incense, analgesic creams, and lip balms. Even products marked “unscented” often are falsely labelled and actually contain toxic fragrances.

Perfume Pollutes

Using environmentally safe products is as important as recycling. If everyone stopped buying unsafe, chemically-scented products, companies would stop making them, ending a lot of unnecessary pollution.

Symptoms Provoked By Fragrances

Watery or dry eyes, double vision, sneezing, nasal congestion, sinusitis, tinnitus, ear pain, dizziness, vertigo, coughing, bronchitis, difficulty breathing, difficulty swallowing, asthma, anaphylaxis, headaches, seizures, fatigue, confusion, disorientation, incoherence, short-term memory loss, inability to concentrate, nausea, lethargy, anxiety, irritability, depression, mood swings, restlessness, rashes, hives, eczema, flushing, muscle and joint pain, muscle weakness, irregular heart beat, hypertension, swollen lymph glands, and more. (Candida Research and Information Foundation, Perfume Survey, Winter 1989-90)

Right to Breathe Fresh Air

The Canadian Law

The Canadian Human Rights Commission has never addressed in any of their decisions an issue involving guarantied access to public buildings for persons with disabilities who suffer from MCS/EI.

Canadian postal regulations do limit the commercial distribution of scented products. Scented samples must be packaged and sealed in a manner that prevents the scent from escaping. When mailed in large quantities, scented samples, and other similar items, must be placed in a sealed container, such as an envelope. The container must prevent the scent from escaping. Canada Post considers perfume as a dangerous good (flammable liquid) and therefore prohibits them from the mail stream.

Health Canada Regulations

After years of waiting, the federal government formally published on December 1st, 2004, regulations that will require mandatory ingredient labelling for all cosmetic products sold in Canada.

The new regulations, which call for full compliance by Nov. 18, 2006, will likely see cosmetic manufacturers phase in package labelling over the next 24 months. The regulations were introduced by Health Canada as amendments to the existing Cosmetic Regulations and will cover most products, such as lipstick, shampoo, fragrances, makeup and hair colouring. They will not cover products such as toothpaste and sunscreens, which are considered drug products, as well as many natural health products.

In announcing the changes, Health Canada acknowledged that there had been hundreds of requests over the years to extend ingredient labelling to cosmetics, as well as numerous complaints from people who had experienced serious allergic reactions to undisclosed ingredients.

Health Canada estimates that some 10,000 chemicals are used in the cosmetics industry, which has sales in Canada of over $5.3 billion annually. Many of those chemicals have not been tested for their human health effects, although many have and continue to be used despite potentially toxic effects.

The new cosmetics labels will require some warnings for possible acute reactions, such as with hair colouring products containing coal tar derivatives. Consumers must be cautioned that the ingredient could cause skin reactions and advised to test it beforehand.

Under the regulations, ingredients include “any substance that is one of the components of a cosmetic, including colouring agents, botanicals, fragrance and flavour.” All ingredients over one per cent are to be listed in descending order of percentage content, while those below one per cent can be listed in random order.

Chemical ingredients will be identified using the International Nomenclature of Cosmetic Ingredients (INCI), a system developed by the cosmetics industry and already in use in the U.S., the European Union, Japan, and other countries.

Still, many other jurisdictions have moved much farther ahead than Canada in that time, in labelling requirements, prior testing of ingredients and restrictions on ingredients that may be used.

For example, independent testing two years ago in the EU found that dozens of cosmetic products contained phthalates, even though phthalates were not listed among the ingredients on the label. Since then, the EU has moved to ban phthalates, many of which are endocrine disruptors, from cosmetic products.

The labelling regulations have been a long time in coming. Many unions along with health and environmental organizations have repeatedly emphasized the need for full disclosure of ingredients, as part of the public's right to know what chemicals they're being exposed to.

We would now like to see the same disclosure requirements extended to all consumer cleaning products. We also believe there is a need to provide a warning on the label when a product contains a known or suspect carcinogen (presently in place in California).

Beware of products like cleaners and air fresheners sold to the general public (in grocery or hardware stores) that require "consumer labelling" only. These labels focus on immediate hazards such as corrosion, explosion, fire and poison. Only certain ingredients will be listed on the package or product. To find out all of the ingredients in the product, it may be necessary to contact the manufacturer directly.

The U.S. Law

The Americans with Disabilities Act of 1992 guarantees access of disabled to institutions, such as government agencies, libraries, doctor's offices, retail stores, and many others. Multiple Chemical Sensitivity/ Environmental Illness (MCS/EI) is recognized as a disability by The Social Security Administration and The Department of Housing and Urban Development. Fragrances are a "barrier to access" to MCS/EI disabled, since breathing is affected. Breathing is a "major life activity" as defined by the ADA. Fragrance bans meet the "reasonable accommodation" clause of the ADA, since elimination and substitution are not expensive.

U.S. Postal Regulations state that fragrance strips for mailing "cannot be activated except by opening a glued flap or binder or by removing an overlying ply of paper."

California AB 2709 (as of January 1.1992) states that "fragrances contained in any newspaper, magazine, or other periodically-printed material, published or offered for sale, or contained in any advertisement (mailed or otherwise distributed) shall be enclosed in a sealant sufficient to protect a consumer from inadvertent exposure to the cosmetic including, but not limited to, the inadvertent inhalation thereof."

The European Law

Existing EU legislation provides only partial protection from the chemicals used in cosmetics, including perfume products. The EU Cosmetics Directive (76/768/EEC) restricts the use in cosmetic products of chemicals that are classified as carcinogenic, mutagenic or toxic to reproduction.

However, the Directive:

- does not prevent the use of chemicals of equivalent concern, such as endocrine disruptors;
- fails to address exposure arising from the environmental distribution of the chemicals used in the manufacture of cosmetic products, or from the use and disposal of these products;
- lacks any authorisation procedure that would require manufacturers to adopt a policy of precaution or to seek systematic solutions to phase out and replace undesirable chemical groups.

Elected members of the European Parliament and ministers of EU governments are debating legislation that has the potential to protect EU citizens from exposure to hazardous chemicals.

The proposed EU chemicals reform known as REACH (Registration, Evaluation and Authorisation of Chemicals), has the potential to set in motion an authorisation process that would require the phase out and substitution of hazardous chemicals, in particular 'substances of high concern' which display properties that may harm our health and environment. This includes chemicals that are persistent, bioaccumulative and toxic (PBT) and those that are very persistent and very bioaccumulative (vPvB), chemicals that have the potential to cause cancer, reproductive damage or give rise to genetic mutations (CMR) and chemicals that can affect the hormonal system (endocrine disruptors).

While it remains to be seen whether phthalates and synthetic musks will ultimately be officially identified as "chemicals of very high concern" under REACH, the emerging evidence of hazardous properties outlined above clearly gives grounds for their consideration.

The Precautionary Principle

The PSAC has promoted within health, safety and environmental legislation the need to use precautionary principle. This concept is included specifically in the PSAC Environment Policy.

This principle should be applied for all activities both inside the workplace and in the outside environment.

Promotion Of The Wingspread Conference On The Precautionary Principle

What is the Precautionary Principle?

"When an activity raises threats of harm to the environment or human health, precautionary measures should be taken even if some cause and effect relationships are not fully established scientifically."
Wingspread Statement on the Precautionary Principle, Jan. 1998

What was the Wingspread Conference?

In January 1998, at an historic gathering at Wingspread, headquarters of the Johnson Foundation, scientists, philosophers, lawyers and environmental activists, reached agreement on the necessity of the Precautionary Principle in public health and environmental decision-making. The key element of the principle is that it incites us to take anticipatory action in the absence of scientific certainty.

At the conclusion of the three-day conference, the diverse group issued a statement calling for government, corporations, communities and scientists to implement the "precautionary principle" in making decisions.

The 32 conference participants included treaty negotiators, activists, scholars and scientists from the United States, Canada and Europe. The conference was called to define and discuss implementing the precautionary principle, which has been used as the basis for a growing number of international agreements. The idea of precaution underpins some U.S. policy, such as the requirement for environmental impact statements before major projects are launched using federal funds. But most existing laws and regulations focus on cleaning up and controlling damage rather than preventing it. The group concluded that these policies do not sufficiently protect people and the natural world.

Participants noted that current policies such as risk assessment and cost-benefit analysis give the benefit of the doubt to new products and technologies, which may later prove harmful. And when damage occurs, victims and their advocates have the difficult task of proving that a product or activity was responsible. The precautionary principle shifts the burden of proof, insisting that those responsible for an activity must vouch for its harmlessness and be held responsible if damage occurs. The issues of scientific uncertainty, economics, environmental and public health protection which are embedded in the principle make this extremely complex.

The Wingspread Consensus Statement on the Precautionary Principle

"The release and use of toxic substances, the exploitation of resources, and physical alterations of the environment have had substantial unintended consequences affecting human health and the environment. Some of these concerns are high rates of learning deficiencies, asthma, cancer, birth defects and species extinctions; along with global climate change, stratospheric ozone depletion and worldwide contamination with toxic substances and nuclear materials.

We believe existing environmental regulations and other decisions, particularly those based on risk assessment, have failed to protect adequately human health and the environment – the larger system of which humans are but a part.

We believe there is compelling evidence that damage to humans and the worldwide environment is of such magnitude and seriousness that new principles for conducting human activities are necessary.

While we realize that human activities may involve hazards, people must proceed more carefully than has been the case in recent history. Corporations, government entities, organizations, communities, scientists and other individuals must adopt a precautionary approach to all human endeavours.

Therefore, it is necessary to implement the Precautionary Principle: When an activity raises threats of harm to human health or the environment, precautionary measures should be taken even if some cause and effect relationships are not fully established scientifically.

The process of applying the Precautionary Principle must be open, informed and democratic and must include potentially affected parties. It must also involve an examination of the full range of alternatives, including no action."

Workplace and Government Policies

Some employers, in an attempt to minimize workplace exposure to perfumes and other scented products, have endorsed workplace policies. Although only a few number of employers have endorsed scent-free policies, they are a good tool that not only limits contamination of the indoor air quality but also increases awareness of workers on the issue of chemical sensitivities and environmental illness.

What was first an attempt to accommodate in the workplace a chemically sensitive worker is now being done to reduce workplace exposure to perfumes and scented products for all workers. Even the province of Nova Scotia has established a scent-free environment in public buildings. The scent-free movement in that province has spread through hospitals, schools, churches, restaurants and public transportation. There are no bylaws backing the campaign yet, but it seems to be gaining momentum.

Implementing A Scent-Free Policy In Your Workplace

In accommodation someone with environmental illness, the need to establish a scent-free policy will likely be required. In establishing your policy, consider the following suggestions:

- Become familiar with the workplaces of all the members of your Local, and gather information about their respective workplace hazards. Survey the members to find out the extent of the problem. At this stage, non-specific symptoms can be documented.
- Collect opinions and suggestions at the same time to help you develop a policy appropriate to your workplace.
- If you work in a place where hazardous substances are being used or in a "sealed building" with poor indoor air quality, the PSAC Workplace Daily Health Diary may be a useful tool to document the effects of known and unknown hazards.
- Ensure full participation of the policy and workplace health and safety committees.
- Encourage all members to provide the Workplace Health and Safety Committees (WHSC) with information on hazards they become aware of.
- You must secure a firm commitment from management right at the beginning of this project.
- Set and stick to deadlines for creating a draft policy, a review of the policy, and for implementation.

- Monitor the program, the policy and any procedures. Consult with your co-workers. They are in the best position to evaluate the success of the policy.
- Make sure that all workers receive the appropriate training, as required by the laws especially concerning Workplace Hazardous Materials Information System (WHMIS) requirements.
- Review all Material Safety Data Sheets for the products currently used and for those you are considering using. Make sure that the ingredients are acceptable.
- Educate all employees (management and union). You may choose to include brochures or flyers in payroll envelopes, publish articles in various newsletters, or give presentations. In any case, the goal is to inform all employees of the health concerns related to scents and why the policy is needed.
- Address any concerns the employees raise openly and honestly. Reinforce the idea that this policy is being implemented as a result of medical concerns - not merely because of a dislike for a certain smell.
- Make it clear that the policy applies to everyone (including visitors, patients, etc).
- Search local legislation for any supporting documentation including city bylaws, regional initiatives, provincial/territorial initiatives, etc.
- Do not limit the scent free policy to perfumes and colognes. As listed above, many cleaning and personal care products also have scents.
- Post a list of "approved" unscented products and where they are available locally.
- Request the conduct of specific trials in limited areas before recommending the purchasing of large quantities of a product.
- Ensure that the employer is posting notices that waxing, shampooing, painting, or spraying (etc) will be conducted at least one week beforehand so that affected workers can make arrangements or have their duties modified during that time.
- Ensure that the posting of a short policy statement is on all appointment cards, stationery, room booking notices, employment postings, etc.
- Decide on wording for 'Scent Free' signs and where the signs will be posted.
- Let everyone know that the policy will be reviewed and can be changed because of experience or new knowledge.

Some employers, in an attempt to minimize workplace exposure to perfumes and other scented products, have endorsed workplace policies. Although only a few number of employers have endorsed scent-free policies, they are a good tool that not only limits contamination of the indoor air quality but also increases awareness of workers on the issue of chemical sensitivities and environmental illness.

Some Safer Products

Fabric softeners, anti-cling products, disinfectants, other strongly-scented products, and most detergents have toxic ingredients. If you use hair mousse and gels, hairspray or if you chemically process your hair, it will need many washings with a safe shampoo and the passage of time before you can be around someone with MCS without making them ill. What may seem like a mild fragrance to you can be excruciatingly toxic to someone with MCS.

Some safer products are available in local health-food stores or from mail-order stores. Keep in mind that tolerance to a particular product varies from one individual to another.

For your convenience a short list of safer products is attached to this document as **Appendix A**. These are only but a few products proposed by PSAC members. Listing them all would have required a full catalogue!

The PSAC does not endorse any of the products found on the list but is providing it as an initial informative tool only.

Examples of Workplace Scent-free Policies

There are many sources of information which can help you in drafting a scent-free policy in your workplace. You should include in your research information provided by the Canadian Centre for Occupational Health and Safety (CCOHS). They are a Canadian federal government agency based in Hamilton, Ontario, which serves to support the vision of eliminating all Canadian work-related illnesses and injuries.

The Canadian Lung Association and its ten provincial Lung Associations have extensive information on this issue.

You will find in **Appendix B**, examples of workplace scent-free employer policies.

For More Information

Organisations

Advocacy Group for the Environmentally Sensitive (AGES), 235 Bay Street, Apt. 808, Ottawa, Ontario, K1R 5Z2, (613) 990-6415

The Allergy and Environmental Health Association of Canada (AEHA Canada), MIMAC RPO, Box 24030, Dartmouth, Nova Scotia, B3A 4T4, (902) 465-2244

Environmental Illness Society of Canada, 256 King Edward Avenue, Suite 330, Ottawa, Ontario, K1N 7M1, (613) 728-9493

Labour Environmental Alliance Society, 1203-207 West Hastings Street, Vancouver, British Columbia, Canada, V6B 1H7, Phone: (604) 669-1921

The Canadian Lung Association, National Office, 3 Raymond Street, Suite 300, Ottawa, Ontario, K1R 1A3, (613) 569-6411, Office: info@lung.ca

Canadian Centre for Occupational Health and Safety (CCOHS), 135 Hunter Street East, Hamilton, Ontario, L8N 1M5, 1-905-572-2981, www.ccohs.ca

Publications, articles and books

"Perfume – An Investigation of Chemicals in 36 Eaux de Toilette and Eaux de Parfum", Greenpeace International, February 2005, www.greenpeace.org

Health Canada, Consumer Product Safety Bureau, Healthy Environments and Consumer Safety Branch, Cosmetics Division, A.L. 3504D, 4th Floor, MacDonald Building, 123 Slater Street ,Ottawa, Ontario, K1A 0K9, Telephone: (613) 946-6452, E-mail: cosmetics@hc-sc.gc.ca

"Chemical Brain Injury", Kaye H. Kilburn M.D., Van Nostrand Reinhold Publishers, 1998.

"Health Effects Review" – Newsletter of the International Joint Commission – Health Professionals Task Force, Canadian Section: 234 Laurier Ave West, Ottawa, Ontario (613) 995-0230.

"The New Reactor" – newsletter of The Environmental Health Network, P.O. Box 1155, Larkspur, CA 94977 – (415) 541-5075.

"The Delicate Balance" – newsletter of The National Center for Environmental Strategies, 1100 Rural Avenue, Voorhees, NJ 08043 – (609) 429-5358.

"Nontoxic, Natural & Earthwise" by Debra Lynn Dadd (Los Angeles: Jeremy P. Tarcher, Inc., 1992), (this book lists many safer products for personal and household use)

"Chemical Exposures: Low Levels and High Stakes" by Prof. Nicholas Ashford & Dr. Claudia Miller (Univ. of Texas Health Science Center: Van Nostrand Reinhold, 1990).

Agency for Toxic Substances and Disease Registry (ATSDR), Toxicological profile for di-(2-ethylhexyl) phthalate, TP-92/05, U.S. Department of Health and Human Services: Public Health Service, Agency for Toxic Substances and Disease Registry, Atlanta, GA, April 1993. (ATSDR: The principal federal public health agency in the US involved with hazardous waste issues, responsible for preventing or reducing the harmful effects of exposure to hazardous substances on human health and quality of life. ATSDR is part of the U.S. Department of Health and Human Services.)

Making Sense of Scents

A Few Toxicological Facts About Perfumes

Some toxic chemicals found in fragrances

Toluene, ethanol, acetone, formaldehyde, limonene, benzene derivatives, ethylene chloride, and many others known to cause cancer, birth defects, infertility, nervous system damage, or other injuries. The U.S. Environmental Protection Agency (EPA) even found chloroform in fabric softeners.

As Romantic as Hazardous Waste

Toluene was found in every fragrance sample collected by the U.S. Environmental Protection Agency for a 1991 report. "Toluene was most abundant in the auto parts store as well as the fragrance section of the department store." Toluene has been proven to cause cancer and nervous system damage and is designated as hazardous waste.

"Perfumes are increasingly used in an ever wider variety of fields, including perfumes, cosmetic products, hygienic products, drugs, detergents and other household products, plastics, industrial greases, oils and solvents, foods, etc. Their composition is usually complex. It involves numerous natural and synthetic sweet-smelling constituents, more than 5,000 of which are known. Perfumes may produce toxic and more often allergic respiratory disorders (asthma), as well as neurological and cutaneous disorders." from the *French toxicology journal*, Ann Dermatol Vernereol, Vol 113, ISS 1, 1986, P.31-41.

84% of these ingredients have never been tested for human toxicity and if they have, they were tested only minimally. N. Ashford, Ph.D. and C. Miller, M.D. *Chemical Exposures: Low Levels and High Stakes* 1991, p. 61.

In 1986 the U.S. 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% of chemicals used in fragrances are synthetic compounds derived from petroleum. They include benzene derivatives, aldehydes, and many other known toxics and sensitizers capable of causing cancers, birth defects, central nervous system disorders and allergic reactions. *"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]

A few chemicals found in fragrances known to be neurotoxic: hexachlorophene; cetyl-ethyl-tetramethyl-tetralin; zinc-pyridinethione; 2,4,dinitro-3-methyl-6-tert-butylanisole; 1-Butanol; 2-Butanol; tert-Butanol; Isobutanol; t-Butyl Toluene. Neurotoxic properties of chemicals found in fragrances have caused testicular atrophy in lab animals as well as myelin disease. The myelin sheath protects the nerves and does not regenerate. (Compiled from TOXLINE database of fragrances industry and medical journals.)

Toluene not only triggers asthma attacks, it is known to cause asthma in previously healthy people. According to "Air Currents", publication of Allen and Handsbury's Respiratory Institute, division of Glaxo, Inc., asthma has increased in the past decade by 31%, and in the same period asthma deaths have increased by 31%. Women and those over 65 suffer the highest death rate for asthma.

Multiple Sclerosis, Parkinson's, Lupus, and Alzheimer's are all neurological disorders. Dyslexia is a neurological dysfunction. Could any of these neurological dysfunctions be caused by exposure to neurotoxic chemicals? Symptoms are often identical to chemical hypersensitivity. Sudden Infant Death Syndrome (SIDS) is also a neurological dysfunction. Could fragrant fabric softeners or detergents emitting neurotoxic chemicals cause the neurological breakdown?

A few chemicals found in fragrances known to cause cancer and birth defects: methylene chloride; toluene; methyl ethyl ketone; methyl isobutyl ketone; tert Butyl; sec Butyl; benzyl chloride. (Compiled by comparing a list of 120 fragrance chemicals from the EPA obtained through the Freedom of Information Act and California's Prop 65 List of Chemicals).

A few chemicals found in fragrances designated as hazardous waste disposal chemicals: methylene chloride; toluene; methyl ethyl ketone; methyl isobutyl ketone; ethanol; benzal chloride. These chemicals are listed in the EPA's Code 40 of Federal Regulations, Ch 1, Section 261.33.

884 toxic substances were identified in a list (partial) of 2,983 chemicals used in the fragrance industry: "Many of these substances are capable of causing cancer, birth defects, central nervous system disorders, breathing and allergic reactions and Multiple Chemical Sensitivities." (*U.S. National Institute of Occupational Safety and Health report.*)

In a National Institute of Occupational Safety and Health study conducted by *Syracuse Research Corporation, Report* No. SRC TR 81-521, 1981, benzoin is named as a chemical used in fragrances found to cause enlarged lymph nodes in both male and female mice and enlarged spleens in males. Liver damage is also cited.

AMICUS journal, Winter '89, U.S. Board of Environmental Studies and Toxicology of the National Research Council, the research branch of the National Academy of Sciences estimates that "15% of the population experiences hypersensitivity to chemicals found in common household products".

Asthma And Fragrance Chemicals

Toluene was detected in every fragrance sample collected by the U.S. Environmental Protection Agency for a report in 1991: "Toluene was most abundant in the auto parts store, as well as the fragrance sections of the department store."
Toluene not only triggers asthma attacks, it is known to cause asthma in previously healthy people. According to "*Air Currents*", publication of Allen and Handsbury's Respiratory Institute, division of Glaxo, Inc., asthma

has increased in the past decade by 31%, and in the same period asthma deaths have increased by 31%. Women and those over 65 suffer the highest death rate for asthma.

72% of asthma patients in a study have adverse reactions to perfumes; i.e., pulmonary function tests dropping anywhere between 18% and 58% below baseline (from "*Affects of Odors in Asthma*," Chang Shim, MD and M. Henry Toluene-laced fragrance industry chemical products have become increasingly pervasive in the last ten years. They are used not only in perfumes, but also in furniture wax, tires, plastic garbage bags, inks, hair gel, hairspray, and kitty litter. A *Danish toxicological journal*, "Ugeskr Laegar", Vol 153, ISS 13, 1991, p. 939-40, found perfume in kitty litter to be the cause of asthma in humans.

Relevant Facts

- Of chemicals used in fragrances, 95% are synthetic compounds derived from petroleum. They include benzene derivatives, aldehydes and many other known toxics and sensitizers capable of causing cancer, birth defects, central nervous system disorders and allergic reactions. (*Neurotoxins: At Home and the Workplace*, Report by the Committee on Science & Technology, U.S. House of Representatives, Sept. 16, 1986, Report 99-827)
- Chloroform was found in tests of fabric softeners (EPA's 1991 study)
- A room containing an air freshener had high levels of p-dichlorobenzene (a carcinogen) and ethanol (EPA's 1991 study)
- An FDA analysis (1968-1972) of 138 compounds used in cosmetics that most frequently involved adverse reactions, identified five chemicals (alpha-terpineol, benzyl acetate, benzyl alcohol, limonene and linalool) that are among the 20 most commonly used in the 31 fragrance products tested by the EPA in 1991!
- Thirty-three million Americans suffer from sinusitis (inflammation or infection of sinus passages). It is estimated that three million Canadians suffer from sinusitis.
- Asthma is one of the most prevalent chronic conditions in Canada. More than one million Canadians of all ages suffer from asthma, resulting in more than 60,000 hospital admissions and 280,000 days in hospital annually.
- Ten million Americans have asthma. Asthma and asthma-related deaths have increased over 30% in the past 10 years.
- Headaches cost $50 billion in lost productivity and medical expenses and 157 million lost work days in 1991 in the U.S. "*Focus on Fragrance and Health*," by Louise Kosta, The Human Ecologist, Fall 1992.

The Health Risks of Twenty Most Common Chemicals Found in Thirty-One Fragrance Products by a 1991 EPA Study

Excerpts from "Health Hazard Information" Environmental Protection Agency

References: Material Safety Data Sheets (MSDS)

Principal Chemicals Found in Scented Products

ACETONE (In: cologne, dishwashing liquid and detergent, nail enamel remover). On EPA, RCRA, CERCLA Hazardous Waste lists. "Inhalation can cause dryness of the mouth and throat; dizziness, nausea, incoordination, slurred speech, drowsiness, and, in severe exposures, coma". "Acts primarily as a central nervous system (CNS) depressant".

BENZALDEHYDE (In: perfume, cologne, hairspray, laundry bleach, deodorants, detergent, Vaseline lotion, shaving cream, shampoo, bar soap, dishwasher detergent). Narcotic and sensitizer. "Local anaesthetic, CNS depressant". "Irritation to the mouth, throat, eyes, skin, lungs, and GI tract, causing nausea and abdominal pain". "May cause kidney damage". "Do not use with contact lenses".

BENZYL ACETATE (In: perfume, cologne, shampoo, fabric softener, stickup air fresheners, dishwashing liquid and detergent, soap, hairspray, bleach, after shave, deodorants). Carcinogenic (linked to pancreatic cancer). "From vapours: irritating to eyes and respiratory passages, exciting cough". "In mice: hyperaemia of the lungs". "Can be absorbed through the skin causing systemic effects". "Do not flush to sewer".

BENZYL ALCOHOL (In: perfume, cologne, soap, shampoo, nail enamel remover, air fresheners, laundry bleach and detergent, Vaseline lotion, deodorants, fabric softener). "Irritating to the upper respiratory tract". "Headache, nausea, vomiting, dizziness, drop in blood pressure, CNS depression, and death in severe cases due to respiratory failure".

CAMPHOR (In: perfume, shaving cream, nail enamel, fabric softener, dishwasher detergent, nail color, stickup air fresheners). "Local irritant and CNS stimulant". "Readily absorbed through body tissues". "Irritation of eyes, nose and throat". "Dizziness, confusion, nausea, twitching muscles and convulsions". "Avoid inhalation of vapours".

ETHANOL (In: perfume, hairspray, shampoo, fabric softener, dishwashing liquid and detergent, laundry detergent, shaving cream, soap, Vaseline lotion, air fresheners, nail color and remover, paint and varnish remover). On EPA Hazardous Waste list; symptoms: "...fatigue; irritating to eyes and upper respiratory tract even in low concentrations...". "Inhalation of ethanol vapours can have effects similar to those characteristic of ingestion. These include an initial stimulatory effect followed by drowsiness, impaired vision, ataxia, stupor...". Causes CNS disorder.

ETHYL ACETATE (In: after shave, cologne, perfume, shampoo, nail color, nail enamel remover, fabric softener, dishwashing liquid). Narcotic. On EPA Hazardous Waste list. "Irritating to the eyes and respiratory tract". "May cause headache and narcosis (stupor)". "Defatting effect on skin and may cause drying and cracking". "May cause anaemia with leukocytosis and damage to liver and kidneys". "Wash thoroughly after handling".

LIMONENE (In: perfume, cologne, disinfectant spray, bar soap, shaving cream, deodorants, nail color and remover, fabric softener, dishwashing liquid, air fresheners, after shave, bleach, paint and varnish remover). Carcinogenic. "Prevent its contact with skin or eyes because it is an irritant and sensitizer". "Always wash thoroughly after using this material and before eating, drinking, ...applying cosmetics. Do not inhale limonene vapour".

LINALOOL (In: perfume, cologne, bar soap, shampoo, hand lotion, nail enamel remover, hairspray, laundry detergent, dishwashing liquid, Vaseline lotion, air fresheners, bleach powder, fabric softener, shaving cream, after shave, solid deodorant). Narcotic. "Respiratory disturbances". "Attracts bees". "In animal tests: ataxic gait, reduced spontaneous motor activity and depression ... development of respiratory disturbances leading to death". "Depressed frog-heart activity". Causes CNS disorder.

METHYLENE CHLORIDE (In: shampoo, cologne, paint and varnish remover). Banned by the FDA in 1988! No enforcement possible due to trade secret laws protecting chemical fragrance industry. On EPA, RCRA, CERCLA Hazardous Waste lists. "Carcinogenic". "Absorbed, stored in body fat, it metabolizes to carbon monoxide, reducing oxygen-carrying capacity of the blood". "Headache, giddiness, stupor, irritability, fatigue, tingling in the limbs". Causes CNS disorder.

a-PINENE (In: bar and liquid soap, cologne, perfume, shaving cream, deodorants, dishwashing liquid, air fresheners). Sensitizer (damaging to the immune system).

g-TERPINENE (In: cologne, perfume, soap, shaving cream, deodorant, air fresheners). "Causes asthma and CNS disorders".

a-TERPINEOL (In: perfume, cologne, laundry detergent, bleach powder, laundry bleach, fabric softener, stickup air fresheners, Vaseline lotion, cologne, soap, hairspray, after shave, roll-on deodorant). "Highly irritating to mucous membranes". "Aspiration into the lungs can produce pneumonitis or even fatal edema". Can also cause "excitement, ataxia (loss of muscular coordination), hypothermia, CNS and respiratory depression, and headache". "Prevent repeated or prolonged skin contact".

Unable to secure MSDS for the following chemicals: 1,8-CINEOLE; b-CITRONELLOL; b-MYRCENE; NEROL; OCIMENE; b-PHENETHYL ALCOHOL; a-TERPINOLENE.

Appendix A – List of Safer Products

The PSAC does not endorse any of the products found on the list but is providing it as an initial informative tool only.

Soaps

- Sirena Coconut Soap, Unscented
- Dove Moisturizing Body Wash, Unscented
- Oil of Olay Moisturizing Body Wash, Unscented
- Dr. Bronner's Unscented Baby Castile
- Conti Castile Soap
- Kiss my Face Pure Olive Oil Soap, Unscented
- Nature Clean Pure Vegetable Soap
- Gardener's Soap with Loofah
- Goat's Milk Soap
- Skin Kind Organics Irish Moss Soap
- Skin Kind Organics Kelp Meal Scrubbing Soap
- Pure Glycerin Soap
- Woodbury Soap

Shampoos

- Pure Essentials Fragrance-Free Shampoo
- Granny's Rich'n Radiant Shampoo
- Dr. Bronner's Unscented Baby Castile
- All Ways Indian Hemp Shampoo
- Nature Clean Herbal Shampoo
- Skin Kind Organics Irish Moss or Kelp Shampoo
- KMS Puritives
- Cliniderm Shampoo
- Earth Science Pure Essential Fragrance Free Shampoo
- Infinity Rosemary Shampoo

Laundry and Dishwashing

- Plain baking soda
- Tri-Clean Laundry Discs
- Dr. Bronner's Unscented Baby Castile
- Granny's Old Fashioned Concentrate
- Country Save Unscented
- Shaklee Products
- Tide Free Laundry Soap
- Ecover Laundry Powder
- Plain borax
- Nature Clean Dishwashing Powder
- Down East Homecare Products
  - All Purpose Cleaner
  - Liquid Laundry Detergent
  - Scouring Powder
  - Dishwashing Liquid

Deoderant

- Deodorant Stones
- Tom's Natural Deodorant Stick
- Marcelle Roll On
- Crystal Rock
- Mitchum Unscented
- Arm & Hammer Anti-Perspirant – Unscented
- Arrid XX – Unscented
- Degree Original – Unscented
- Lady Speed Stick – Unscented
- Secret – Unscented
- Natural Science Deodorant
- Earthwise Chamomile
- Baking Soda

Lotions

- Plain almond oil or olive oil
- Granny's Old Fashioned Moisture Guard
- Nature's Plus Vitamin E Cream
- Cocoa butter, plain or with almond oil only
- Aquitain – Unscented Body Lotion
- Lubriderm – Unscented Body Lotion
- Marcelle Face Cream
- Clinique Face Cream
- Noxema – Sensitive Skin (Fragrance Free)
- Nutragena Face Cream
- Complex 15 – Face and Body Lotion
- Aveeno Fragrance Free Lotion
- Cliniderm Hand Lotion
- Jergens – Unscented

Sunscreens

- Mountain Ocean Sun Screen, SPF 15
- Physician's Formula
- Nature's Gate Lip Balm, SPF 15 (UVA+UVB)

Appendix B – Example of an Employer Policy/Advisory

To: All Notes User/Tous les Usagers de Notes
Subject: Environmental Sensitivities – Chemicals and Perfumes in the Workplace/
Manifestations d'intolérances au milieu – Produit chimiques et parfums en milieu de travail

HEALTH & SAFETY ADVISORY:

Environmental Sensitivities – Chemicals and Perfumes in the Workplace

a message from the
Health, Safety & Security Division
Assets Management Directorate, CSB
May 1997

Concerns continue to be raised about employee sensitivities resulting from the use of chemicals and perfumes in the workplace. Accordingly, the Departmental Occupational Safety and Health Advisory Committee has decided to reissue this advisory with further updates.

Indoor air quality is not just about dust and building air ventilation systems. The air we are exposed to also contains substances which can be irritating and potentially hazardous to many of us, chemicals that we may not think twice about.

Chemicals, including those found in many scented products used everyday, can seriously affect our co-workers, especially those who suffer from environmental sensitivities, allergies, or asthma. Products such as office cleaning solutions, strong perfumes, hairsprays or aftershave lotions can provoke a reaction ranging from mild to serious in some people.

Some of us are reluctant to speak up on our own behalf. We may not even be aware of the substances and chemicals being used around us or of the potential effects of scented products (or combination of products) may have on us.

We all share the air. The following tips can be used to help address environmental sensitivities.

- Avoid using scented products, such as perfumes, aftershave lotions and hairsprays;
- Use odourless products to clean and freshen your office area. Read product labels and be informed. Refer to the Workplace Hazardous Materials Information System (WHMIS) labels for more details. If you require further information, do not hesitate to contact your Occupational Safety and Health Committee (OSH) representative;
- If the cleaning solutions, washroom air fresheners and other products used by the building maintenance workers affect you, call your local Facilities Manager or contact your OSH representative;
- Replace regular permanent markers with an odourless type. Substitute strongly scented cleaning solutions with unscented, environment-friendly products. Fumes from marker pens or cleaning products can cause headaches and nausea, especially in an enclosed area such as a boardroom;
- Ensure all products which have odours, such as photocopier cartridges, are tightly sealed and properly stored;
- Eliminate sources of dampness, such as over watered plants, humidifiers, or coffee spills. Dampness encourages the growth of mold which can cause unpleasant odours and trigger allergic reactions in some people;
- Take care of your plants, and don't treat them with chemicals in the work environment. Flowering plants are not advisable because some employees may be allergic to them;
- Ensure that printer filters are replaced when suggested by the manufacturer.

Air quality can also be affected by other minor problems that can be easily avoided if we work together. Listed below are some additional common sense actions that might apply at your work location.

- Turn off computers, free-standing printers and lights when not in use. This helps to keep the building cool and also saves energy;
- Do not block the air vents in window bays with books, files or plants. This causes the air flow to be restricted resulting in reduced comfort levels;
- Have your filing cabinets or other furniture moved away from heating/cooling units to allow for optimal air flow;
- Keep your office door open, whenever possible, to assist the heating and ventilation system to function properly. Share the air flow with your colleagues located in the inside offices;

- Never adjust thermostats. They may control the heat in workplaces other than yours, and could affect the comfort of your colleagues. If you feel too hot or too cold, call your local Facilities Manager;
- Request that photocopiers and other office equipment be placed in well ventilated areas;
- Think of your colleagues: no-one appreciates the smell of gym clothes or damp boots, which could produce strong odours;
- Periodically clean and tidy up your workstation. This will help to reduce dust and make your work environment much safer.

If you have allergies or sensitivities, let others around you know of your health concerns. If you are aware of someone who is sensitive, be considerate and try to avoid using the substances which might trigger a negative reaction.

It's a team effort. By applying these common-sense principles we can do our part in improving air quality in our work environment. Together we can make a difference.

Enquiries may be directed to your Occupational Safety and Health Committee (OSH) representative.

Example of an Employer Policy/Advisory

Environmental Sensitivities – Chemicals and Perfumes in the Workplace (Industry Canada)

Ladies and Gentlemen, Please...

Your Scents are Making us Sick!

Believe it... perfumes, colognes and other scented toiletries have entered the growing list of air pollutants because they actually make some people ill. That doesn't mean the odour is offensive; it means these products can cause adverse physical reactions such as nausea, headaches, difficulty breathing, laryngitis and rashes. In other words, some people are severely allergic to what we are wearing and, because they work with us, they can't escape!

Yes, these people are few in number right now but their numbers are growing daily. All of us are constantly exposed to the pollutants we are pouring into the environment and many people are being sensitized to these substances and developing allergies that were unheard of years ago. If you think this will never happen to you, think again …most environmentally sensitive people were perfectly normal and healthy until their reactions came "out of nowhere" and, for some, have become so severe that they must lead frustratingly restricted lives.

In consideration for the health of our colleagues who may suffer from environmental sensitivities, and, in self-interest to eliminate a contaminant from the air that could make any one of us "healthy specimens" ill some day, please consider using unscented toiletries and minimizing or even eliminating your use of perfumes and colognes at work.

Example of an Employer Policy/Advisory

Environmental Hypersensitivity at the Workplace (Public Works Government Services Canada)

PURPOSE

This Environment, Health and Safety (EHS) notice provides information for employees, supervisors and managers regarding environmental hypersensitivity and the suggested guidelines to address this issue as it relates to the workplace.

BACKGROUND

Introduction to Environmental Hypersensitivity

Environmental Hypersensitivity (EH) is an involuntary response experienced by an individual, causing physiological responses, when one or more environmental factors adversely affect that individual, and when the majority of the population appears to adapt to these conditions without impairment.

When an individual has an adverse reaction to conditions that the majority of the population appears to tolerate without impairment, that individual may be referred to as "environmentally hypersensitive".

EH continues to be studied and discussed by health care professionals, researchers, medical practitioners and workers' compensation boards in an effort to determine the extent to which EH can be identified and/or diagnosed as a medical condition.

Symptoms and Contributing Factors

Some common reported symptoms associated with EH include: tension, fatigue, anxiety, headaches, difficulty in concentration, dizziness, sore throat, eye irritation, skin irritation, nausea, shortness of breath, sinus pain, sweating and joint aches.

The cause of discomfort may be difficult to determine at first as EH reactions can occur at a relatively low level of exposure. Initiation of sensitivity for one or more substances tolerated in the past may also occur after an initial acute exposure to environmental contaminants. Some contributing factors that may solicit reactions include outdoor and indoor air pollutants such as biological contaminants from living plants and animals (pollen from trees, grass and weeds, components of food, animal dander, dust mites and mould) and chemicals from pesticides, cleaning products, perfumes, air fresheners, hairsprays and aftershave.

Approaching the Issue

It is acknowledged that EH can have a significant effect on health and productivity and should not be ignored. While study of EH continues, *Annex A – Guidelines on Addressing Environmental Hypersensitivities* have been developed to assist departmental employees, managers and supervisors, and tenant departments in addressing EH issues. These guidelines provide a standard approach for the investigation of EH conditions and prescribe methods to help determine

symptoms, identify contributing factors and search for solutions.

Taking care of our work environment is a team effort. In order to address EH issues in an effective manner, the combined efforts and cooperation of all concerned parties, including employees, colleagues, supervisors and managers, Health and Safety committees and representatives, property managers and senior management are required.

INQUIRIES

Regional Managers responsible for health and safety:

Atlantic Region	Tel: (902) 496-5075
Quebec Region	Tel: (514) 496-3576
National Capital Area	Tel: (819) 956-6968
Ontario Region	Tel: (416) 512-5962
Western Region	Tel: (403) 497-3538
Pacific Region	Tel: (604) 775-6610

ANNEX A – Guidelines on Addressing Environmental Hypersensitivities

Reporting an EH Condition

Employees who suspect an environmental hypersensitivity (EH) at the workplace should report the problem to their Manager or Supervisor and seek a medical evaluation by a specialist to confirm the condition of EH. This action should then begin the process to address the problem.

Addressing an EH Related Problem

There are four main steps that should be taken in order to properly address an EH problem that has been identified by an employee. These four steps, discussed in further detail below, include *Preliminary Assessment, Evaluation of the Work Environment, Search for Solutions and Follow-up and Feedback*. It should be noted that the employee reporting an EH problem may wish and should be encouraged to be involved in the investigation. In situations where a number of individuals share a common concern, a sub-group may be formed and a representative of the group could then participate in the investigation.

Step 1: Preliminary Assessment

Upon receiving a report from an employee of suspected EH, the Manager or the Supervisor will initiate a preliminary assessment of the situation. This assessment includes discussing with the employee the symptoms experienced and the possible causes of the discomfort. Frequently, the individual can relate the problem to specific locations, odours or activities, or has already identified the source of his/her symptoms. The EH Problem Checklist should be completed by the employee and utilized as a tool to assist in determining the cause of the problem, if unknown. See *Appendix 1 – Environmental Hypersensitivity Problem Checklist.* In addition, some contributing factors to EH symptoms have been identified and should be reviewed in relation to the reported problem. See *Appendix 2 – Environmental Hypersensitivity Workplace Checklist.*

The Manager or Supervisor should notify the Workplace Health and Safety Committee or Representative and the Property Manager at the onset of a preliminary assessment, to ensure that they are aware of the problem, and of actions that are being undertaken to address the situation. If there is no Workplace Health and Safety Committee or Representative, the Occupational Health and Safety Coordinator or the Regional Manager responsible for Health and Safety should be notified.

In many instances the symptoms related to EH at the workplace can be eliminated or greatly reduced

through the implementation of minor changes within the workplace. In situations where the cause of the problem cannot be easily determined, the Manager or Supervisor should discuss the situation with a Health and Safety Representative, i.e. the Workplace Health and Safety Committee or Representative, the Occupational Health and Safety Coordinator or the Regional Manager responsible for Health and Safety.

If additional assistance is required to reveal the cause of the problem, a response team should be established to investigate. The response team should include the Manager or Supervisor, a Health and Safety Representative, and may include representatives from Case Claims Management, the Union, Labour Relations and Employee and Organization Assistance Program (EOAP). It should be noted that there may be cases in which, due to the nature of the situation, it may not be necessary to call upon all members of the team. The response team will recommend when specialists, i.e. Health Canada, should be utilized to undertake additional studies and investigations of the circumstances.

Step 2: Evaluation of the Work Environment

Prior to the undertaking of special studies and investigations, the Property Manager should be notified and may be asked to complete and submit a report to the Regional Manager responsible for Health and Safety. See *Appendix 3* for an example of a *Building Information Report*. This example provides a sample of the information that should be included when preparing this report.

Close examination of the employee's workspace and adjacent areas may identify possible causes of EH problems. An Indoor Air Quality (IAQ) survey may assist in determining the contributing factors to EH conditions identified during the preliminary assessment. The building location, operation and maintenance activities, and the condition of the systems should be examined. The interactions between building systems and components, occupant activities, scented products, off gassing of furniture and office equipment should be considered as possible causes of EH symptoms.

Examples of reference documents that can be used for an IAQ Survey include:

- *Indoor Air Quality Assessment Strategy,* published by Public Works Canada, 1992;
- *Indoor Air Quality in Office Buildings: Technical Guide*, published by Health Canada, 1993;
- *Guidelines for Managing Air Quality in Office Buildings*, issued by Canadian Standards Association, document Z204-94;

Step 3: Search for Solutions

When an EH problem and the likely cause of the problem have been identified, the search for a solution that is mutually acceptable to the employee and to the employer can then begin. Solutions to EH problems will involve either the accommodation of the individual or the control of the environment. Examples of strategies to accommodate the affected individual and to control the environment are provided here.

If the individual has already identified the cause of his/her symptoms, the Manager or Supervisor notified of the situation should ensure that fellow workers are aware of the individual's condition and take measures to minimize his/her discomfort.

A number of possible options may be available to address a particular concern. Each option should be evaluated in order to identify the most appropriate solution.

Health Canada has developed a set of guidelines that everyone can follow to minimize the suffering of co-workers who are seriously affected by certain products and activities. These guidelines are repeated here to help address environmental sensitivities in the workplace. The guidelines include strategies to control the environment and to accommodate the affected individual, offering possible solutions which may be adopted based on the identified problem, the suspected cause and the associated costs to implement them.

1) Examples of strategies to control the environment:

- Avoid using scented products such as perfumes, aftershave lotions and hairsprays.
- Use odourless products to clean and freshen your office area. Replace strongly scented cleaning solutions with unscented, environmentally friendly products. Read product labels and be informed. Further information regarding a particular product should be directed to the manufacturer of the product.
- If the cleaning solutions, washroom air fresheners and other products used by the building maintenance workers affect you, report it to your manager or supervisor **and** to the National Service Call Centre at 1-800-463-1850. If the problem is not resolved, report it to your Workplace Health and Safety Committee or Representative, the Occupational Health and Safety Coordinator or the Regional Manager responsible for Health and Safety.
- Replace regular permanent pen markers with an odourless type. Fumes from marker pens or cleaning products can cause headaches and nausea, especially in an enclosed area such as a boardroom.
- Ensure all office products which have odours, e.g. photocopier cartridges, are tightly sealed and properly stored.
- Ensure that printer filters are replaced when suggested by the manufacturer.
- Eliminate sources of dampness such as over watered plants, humidifiers or coffee spills. Dampness encourages the growth of mould which can cause unpleasant odours and trigger allergic reactions in some people.
- Plants should be limited. If there are plants in the workplace, they should be taken care of. Do not treat them with chemicals in the work environment. Flowering plants in the workplace are not advisable because some employees may be allergic to them.
- Do not block the air vents in window bays with books, files or plants. Inadequate ventilation and air exchange can also contribute to increased exposure to fumes and odours and decrease indoor air quality.
- If you have allergies or sensitivities, let others around you know of your health concerns. You might consider putting up a sign at your workstation reminding others that you are environmentally sensitive to certain products and to limit use of scents when visiting your work location. As an example, the sign may indicate: “Please limit your use of scents when visiting this workstation. Thank you for your cooperation”. If you are aware of someone who is sensitive, be considerate and avoid using substances that might trigger a negative reaction.

Health Canada has developed a set of guidelines that everyone can follow to minimize the suffering of co-workers who are seriously affected by certain products and activities. These guidelines are repeated here to help address environmental sensitivities in the workplace.

Managers or Supervisors play a key role in ensuring that environmentally sensitive employees are protected in the workplace:

- If the employee's sensitivity is limited to scents from perfumes, hairspray or aftershave lotions, etc., the manager/supervisor may be able to quickly resolve the issue by requesting the cooperation of colleagues in restricting the use of these products. Employees should be reminded to show consideration for their colleagues by replacing the use of scented products with unscented ones and/or avoiding wearing perfume altogether in the workplace. Should this not be achieved, the affected employee and the person wearing the scented product may need to be physically separated.
- Managers may wish to post signs on their floor to raise awareness of environmental sensitivities. An example would be: "Please be aware that many staff members are sensitive to chemicals, including those found in scents, perfumes and aftershaves". Before posting any signs, the Property Manager should be consulted.
- When calling a meeting, aim for a scent-free environment by asking participants to refrain from wearing scented products.
- Before renovation or construction work begins on a floor, the manager should inform employees about the type of work taking place, and if necessary, make arrangements to have environmentally sensitive employees temporarily relocated.

2) Examples of strategies for accommodation:

- Relocation of the affected individual to another floor or another building.
- Part-time work to allow for a longer recovery period.
- A change in work schedule in order to avoid pollutant generating activities.
- Arranging for work to be done at home.
- If all else fails, where there is no success in finding a solution through the use of the above-mentioned strategies, modification of the present workplace may be necessary. This entails isolating the workstation as much as possible from the surroundings, i.e. an enclosed office may be required. This strategy is used with the purpose of creating a safe haven for the individual in order to allow for recuperation.

Step 4: Follow-up and Feedback

All records of activities undertaken and decisions made regarding the identification of an EH issue, and of determining cause(s) and measures taken should be maintained by the Manager or Supervisor. This will allow for the evaluation of remedial measures. The

records should include complaint reports and a personal log maintained by the employee, which may provide some indication as to the impact of modifications.

The personal log should be continued by the employee after modifications have been made, as the results of the changes may not be immediate. The Manager or Supervisor should follow up with the employee on a regular basis in order to monitor the effectiveness of the activities that have been undertaken.

Other Considerations in Addressing EH Issues

Monitoring

Any proposed modifications to equipment, procedures or to the workplace that may raise EH issues, i.e., new cleaning products to be utilized in the workplace, office equipment, renovations, design changes to office space, etc., should be reported to the Workplace Health and Safety Committee or Representative for review and to those EH identified individuals that may be affected by the change. This review may indicate a need to revise the proposed changes prior to implementation.

Work Refusal

When an employee at work has reasonable cause to believe that a condition exits or potentially exists in the workplace that constitutes a "danger" to the employee, he/she may refuse to work. If the employee submits a refusal to work, he/she must report the matter to the manager or supervisor and the workplace health and safety committee or representative without delay. The manager or supervisor, after being notified of the refusal to work, shall conduct a formal investigation.

Funding

Costs associated with workplace assessments related to EH issues, and for required modifications to the workplace as a result of EH issues, are funded by the employing department. For requirements related to EH issues within PWGSC, costs are funded by the respective responsibility centre. If the responsible manager or supervisor does not have sufficient funds, a request can be submitted to Corporate Policy and Infrastructure Branch to apply for the Departmental Job Accommodation Central Fund. If additional assistance is required, a request for funding can be forwarded to Employment Equity. Further details on sources of funding can be found in Departmental Policy 019 – Work-Related Accommodation for Persons with Disabilities.

Employees are responsible for costs associated with the acquisition of any device that is used solely for the purpose of providing an **added measure** of personal protection from EH symptoms, i.e., masks and filters, clothing and any other equipment used for personal EH protection.

When an employee at work has reasonable cause to believe that a condition exits or potentially exists in the workplace that constitutes a "danger" to the employee, he/she may refuse to work.

APPENDIX 1 – Environmental Hypersensitivity Problem Checklist

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Employee

Name: _____ Phone No.: _____

Department: _____ Location: _____

MANAGER/Supervisor

Name: _____ Phone No.: _____

Assessment Conducted By

Name: _____ Date: _____

I) Health Related Information

1. **Do you have a history of allergies?** ❑ Yes ❑ No
   If **Yes**, the type of allergy is:
   Respiratory / Skin / Food / Other
   If Other please describe:

   _____

   _____

2. **Can you specify products that you cannot tolerate?** ❑ Yes ❑ No
   If Yes, please indicate product(s):

   _____

   _____

3. **Are you under medical treatment for these allergies?** ❑ Yes ❑ No

4. **Please indicate other health related information that you wish to provide at this time.**

_____

_____

_____

II) Building Related Information

1. **Do you feel better outside rather than inside the building?** ❑ Yes ❑ No

2. **Do you feel better at another building (or buildings)?** ❑ Yes ❑ No
   If **Yes**, please provide building name(s) and location(s)

   _____

   _____

3. **Where in this building are your symptoms the worst?**
   (Please indicate the floor, room and workstation number (if applicable), or indicate if common area(s) within the building are where symptoms are worse (e.g., main lobby, cafeteria, etc.).

   _____

   _____

4. **Are your allergies worse while you are in this building?** ❑ Yes ❑ No

   YOUR ANSWERS TO THE QUESTIONS BELOW APPLY TO THIS LOCATION. WHERE A CHOICE IS PROVIDED, PLEASE **CIRCLE** THE MOST APPROPRIATE ANSWER. SPACE FOR COMMENTS IS PROVIDED.

   _____

   _____

5. **Has this area/office/workstation been renovated recently?** ❑ Yes ❑ No

   If **Yes**, how long ago: _____ months

   What has been done (or what has changed)?
   New floor covering (carpet, other) / Wall covering / Paint / Ceiling / Furniture / Office equipment / Other:

   _____

   _____

6. **Describe the usual temperature here:**
   Appropriate / Too hot / Too cold / Sometimes too hot / Sometimes too cold

7. **How would you usually describe the air here?**
   Appropriate / Drafty / Stagnant / Stale / Dry

8. **Which of the following do you suffer from, that you believe may be due to the building?**
   Headache / Tiredness / Faintness / Dizziness / Concentration problems / Fatigue / Nausea / Stomach problems / Skin irritation / Dry eyes / Itching eyes / Watery eyes / Blurred vision / Stuffy nose / Runny nose / Sneezing / Sore throat / Dry throat / Chest discomfort / Coughing / Asthma /
   Other:

   _____

   _____

9. **Are you bothered by odour here?** ❑ Yes ❑ No
   If **Yes**, how often do you smell this odour?
   Rarely / Occasionally / Frequently / All the time

   Which of the following best describes the odour?
   Auto exhaust / Diesel fumes / Furnace smell / Heating system / Body odour / Mouldy or musty / Chemical / Solvent (like wet cement or plaster) / Dusty or chalky smell

   _____

   _____

   What do you think may cause the odour?

   _____

   _____

10. **Do you or can you, associate symptoms with any particular odours?** ❑ Yes ❑ No

11. **Indicate, if applicable, specific activities related to your work with which you can associate symptoms?**
    Computing / Using forms / Photocopying / Printing /
    Other(s):

    _____

    _____

12. Can you tolerate the products you use for your work? ❑ Yes ❑ No

If **No**, indicate those products that you cannot tolerate.

13. Can you associate problems with any specific activities in this building? ❑ Yes ❑ No

If **Yes**, please indicate the activity:
Renovations / Grass cutting / Pesticide spraying / Heating season / Cooling season /
Other(s):

14. What time of day are your symptoms the worst?
Morning / Afternoon / Same all day

What day of the week are your symptoms the worst?
Monday / Mid-week / Friday / Same all week

What season of the year are your symptoms the worst?
Spring / Summer / Fall / Winter / Same all year

15. Additional information / Comments:

APPENDIX 2 – Environmental Hypersensitivity Workplace Checklist

When an EH problem is suspected, a review should be conducted to determine if there is a factor within the workplace that is contributing to reported symptoms. Some items to review and situations to check for, are as follows:

- Blocked air vents in window bays. Vents should be clear of books, files or plants;
- Furniture or filing cabinets too close to heating/ cooling units, and blocking air flow;
- Thermostat settings. Thermostats should only be adjusted by Facilities Management. One unit may control the temperature in other workplaces;
- Air supply openings should be kept clear – tape should never be used to block an opening. Drafts should be reported to Facilities Management for action;
- Ventilation systems – ventilation systems should only be adjusted or redirected by Facilities Management. Changes can affect the air circulation throughout the entire office area;
- Space layout changes – layout changes may require the modification of the air distribution system – ensure that Facilities Management is aware of changes to space layout, in order to ensure that the appropriate modifications to air distribution are made;
- Photocopiers and other office equipment may require venting;
- Use of scented products, such as perfumes, aftershave lotions and hairsprays;
- Scented products used by the building maintenance staff, such as cleaning solutions and air fresheners, etc.;
- Office products which have odours, such as permanent markers and photocopier cartridges;
- Excessive dust in the work area;
- Excessive condensation on windows;
- Sources of mould and mildew, i.e. areas of water damage, overwatered plants, poorly maintained humidifiers, etc.

APPENDIX 3 – Building Information Report

GENERAL INFORMATION

Building name: _____ Address:

Year building constructed: _____ Municipality:

Owner: _____ Occupants:

Number of towers: _____ Floors per tower:

Gross rentable/useable area (m^2): _____

Neighbouring industries or factories: _____

Construction/activities nearby: _____

Type of trees/plants in the area: _____

Other information: _____

_____

_____

Asset Manager – Name: _____ Phone: _____

Property Manager – Name: _____ Phone: _____

Building Manager – Name: _____ Phone: _____

SPECIAL PURPOSE AREAS

Atrium?	❑ N ❑ Y	
Commercial establishments?	❑ N ❑ Y	
Cafeteria?	❑ N ❑ Y	
Underground parking garage?	❑ N ❑ Y	# Spaces: _____
Enclosed loading dock?	❑ N ❑ Y	
Print shop?	❑ N ❑ Y	
Laboratories?	❑ N ❑ Y	Type: _____
Photographic processing?	❑ N ❑ Y	Darkroom? ❑ N ❑ Y
Stored chemicals (cleaners/pesticides/refrigerants/other)	❑ N ❑ Y	
Library/records office?	❑ N ❑ Y	
Public waiting room?	❑ N ❑ Y	
Locker/change room?	❑ N ❑ Y	Showers? ❑ N ❑ Y Often used? ❑ N ❑ Y
Other special purpose areas?	❑ N ❑ Y	If yes, specify: _____

MAIN COMPLAINTS

Location: _____

Time and date: _____

History/details: _____

BUILDING ACTIVITIES

Major renovation dates: _____

_____

_____

_____

_____

Pesticide spraying ❑ N ❑ Y Frequency: _____

Products: _____

_____

Housekeeping activities ❑ N ❑ Y Frequency: _____

Products: _____

_____

_____

HVAC INFORMATION

Location of air intakes and exhausts Roof/Floor: _____

Changeover frequency: _____ Dates: _____

Do windows open?	❑ N ❑ Y	
Mechanically ventilated?	❑ N ❑ Y	No. of systems: _____
Economizer cycle?	❑ N ❑ Y	Max % fresh air: _____
HVAC overnight shutdown?	❑ N ❑ Y	Operating hours: _____
Control system type?		Manual / Pneumatic / Electronic / DDC
Filtration?	❑ N ❑ Y	Pad / Pleated / Bag / Electrostatic humidification
Humidification?	❑ N ❑ Y	Spray / Central / Steam / Electronic steam
Heating system?	❑ N ❑ Y	Steam boiler / Water boiler / Piped in
Cooling system?	❑ N ❑ Y	Chiller / Refrigerant
Cooling tower?		Air cooled _____ Water cooled _____
Stand-alone A/C units?	❑ N ❑ Y	Other: _____
Coils in HVAC?	❑ N ❑ Y	Heating _____ Cooling _____
Documentation available?	❑ N ❑ Y	
Control system diagrams?	❑ N ❑ Y	Sequence of operations: _____
Mechanical drawings?	❑ N ❑ Y	
Balancing report?	❑ N ❑ Y	Date: _____
Floor plans?	❑ N ❑ Y	Date: _____

OCCUPIED AREAS

Air distribution on floors? VAC / CV / Heat pump / Window
Supply air delivered through? Perimeter / Ceiling (diffuser/slot/coffer)
Ceiling plenium return? ❑ N ❑ Y
Heating/Cooling ❑ N ❑ Y Perimeter ❑ heat ❑ cool
Interior ❑ heat ❑ cool

Closed offices % _____

Other information:_____

Example of an Employer Policy/Advisory

Statement on the Use of Scented Products (Dalhousie University Environmental Health and Safety Committee)

Towards a Scent Reduced University Environment

September 1995

STATEMENT ON THE USE OF SCENTED PRODUCTS

Dalhousie University and the organizations which represent students, faculty and other employees support the efforts of the Dalhousie University Environmental Health and Safety Committee to create a scent-free University. In consideration of the difficulties that exposure to these products cause sensitive individuals, the University encourages faculty, staff, students and visitors to avoid the use of scented personal care products.

Towards A Scent Reduced University Environment

A discussion paper prepared by the Dalhousie University Environmental Health and Safety Committee

BACKGROUND:

The Dalhousie Environmental Health and Safety Committee recognizes the need to maintain an indoor environment that supports the University community at work, study and at play. Along with other members of the University, we have watched with distress, the experience of staff of some neighbouring institutions, particularly health agencies. And we are aware of the growing concern among members of the University regarding environmental sensitivities. The Committee feels that the University needs to take steps now to protect sensitive members of the University and possibly to prevent others from becoming sensitive.

Although many social and organizational factors influence people working or studying in our buildings, it is the physical, and particularly the chemical factors that many see as having a particularly negative effect on health.

Clear differences in toxicity exist between chemicals. It is also clear that under some conditions, any chemical can harm individual people. Both the literature and the experts agree that there is a good deal of uncertainty about the intensity or pattern of exposure necessary to produce this harm. It seems that health problems that result from poor indoor air quality are often triggered by exposures that most people would have considered harmless only a few years ago.

Faced with this situation, the Environmental Health and Safety Committee considers that the only prudent course of action is to keep exposures to all chemicals at as low a level as practical.

Chemicals are a part of our world. It is clearly impractical to contemplate operating a modern university entirely without any chemical exposure.

On the other hand, the Committee feels that we have come to accept, as inevitable, chemical exposures that we could actually avoid. The Committee has targeted some harmful chemical components of cleaning and personal care products that could be avoided. Avoiding these exposures will require efforts by both the University and individual staff, faculty and students.

In considering the kinds of chemicals to which we are exposed in Dalhousie buildings, the Committee has classified chemicals as follows:

- Chemicals introduced into Dalhousie buildings from outdoor sources such as second-hand smoke, engine exhausts, pollen and others.
- Chemicals released by building equipment and activities
  - by furnishings and office equipment
  - during research and teaching in Science, Medicine, Dentistry and Health Professions
  - during food preparation
- Chemicals released by occupants including:
  - scented personal care products including after-shave lotions, hair spray and deodorants.
  - tobacco smoke
- Chemicals released by maintenance and custodial activities

STRATEGIES:

The strategies required to reduce exposure will undoubtedly differ from one class of chemicals to another. The Committee feels that reducing exposure to some of these classes would be relatively straight forward. What would be required is the cooperation of the members of the University and little or no expenditure. It is these exposures that the Committee regards as avoidable. In other cases, reducing exposure may be more difficult or more expensive. At least for the present, the Committee regards these exposures as unavoidable. The Committee proposes to focus initially on the avoidable exposures.

In fact, Dalhousie has already made a good start on controlling some avoidable exposures. In 1988, the University introduced a smoking policy that dramatically curtailed the exposure of members of the University to second-hand smoke. Experience since 1988 has confirmed that tobacco smoke represented an avoidable chemical exposure. Although there continues to be occasional complaints about individual breeches of the policy, compliance is remarkably good. This cooperative compliance has remained high even as we have gradually reduced the number of designated smoking areas.

Although we have quite successfully addressed the matter of exposure to tobacco smoke, exposure to perfumes has emerged as health problems for many. Exposure to perfumes can make those sensitive to these chemicals extremely unwell for example triggering asthmatic reactions and migraine headaches. Often the fragrances, even in personal care products, serve only cosmetic purposes. The Committee finds it hard to defend these exposures when they make others ill.

Several neighbouring institutions, particularly those whose business is health care, have already responded to those who are sensitive to perfumes with policies that curtail the use of scented products. Also so have some Dalhousie units. The Committee feels that there would be broad support for extending

a similar program across Dalhousie. The Committee expects support not only from those who are sensitive but also from the majority who do not want to harm other members of the University. There will of course be a few people who will see this policy as an intrusion into their personal lives. But the Committee believes that the health of people should take precedence.

Using unscented custodial products is clearly a quality control issue that should be easily assessed by management in terms of availability, cost and effectiveness. Addressing the control of other classes of chemicals, some of which may also be harmful to sensitive individuals, needs on-going discussion and education within departments across the University.

The Committee recommends that the University promote a program that aims to provide an indoor environment that is as free and practical from perfumes and scents and to do so in all of its facilities.

The program would address both the University's use of cleaning materials and the use of personal care products by faculty, staff, students and the public users of our facilities. We believe that University community is truly supportive of the health of others. As a consequence, we think that persuasion, education and cooperation will bring about the needed changes in personal behaviour. In most cases, we expect such an approach will be much more successful than one based upon regulation and enforcement.

CONCLUSION:

The Committee asks for the support of Dalhousie faculty, staff and students in the development of a program that aims to keep exposures to chemicals in Dalhousie buildings as low as possible. With the support of the Dalhousie Community, the Environmental Health and Safety Committee proposes to launch a campaign to increase awareness of the scent problem and to encourage all members of the University to avoid the use of scented products. The Committee will also be working with Physical Plant and Planning to replace scented products with unscented alternatives where they are available. The Committee believes that leadership by Dalhousie University on this issue would be timely and would reflect positively on our public image in supporting efforts for health promotion.
SEPTEMBER 1995

Some Unscented Personal Care Products

Internet Scent Information Resources

Environmental Health Network

An extensive collection of information resources for those interested in scents and multiple chemical sensitivity

Lassen Technologies

Resources for the Chemically Injured –
Product alternatives and other resources

Health and Environment Resources Center

Links and publications (including articles from Scientific American and Environmental Health Perspectives

Fragranced Products Information Network

"A Grass root effort to educate on the chemicals and the health effects of fragranced products"

Example of an Employer Policy/Advisory

Scent Policy – Human Resources and Skills Development (Belleville Service Canada Centre)

May 5, 2004

HUMAN RESOURCES AND SKILLS DEVELOPMENT
Belleville Service Canada Centre
Insurance Directorate
Bay View Mall
470 Dundas Street East
Belleville, Ontario

Scent Policy

TO ALL STAFF

The following is the office policy on the use of scented colognes, perfumes, cosmetic and hygienic products, and other scent-bearing items.

As we are all aware, people have different levels of tolerance for scent-bearing items. A principal source of troublesome scents in the workplace comes in the form of colognes, perfumes, cosmetic and hygiene products and other items such as flowers.

It is the responsibility of management to ensure that everyone enjoys a healthy and safe work environment, so where physical reactions occur the matter must be treated with the utmost seriousness. This being said, personal freedom is important and a balance is necessary. In this spirit the following policy has been designed.

Effective immediately everyone is asked to minimize the use of perfumes, colognes, and strongly scented cosmetics and hygienic products. In addition, everyone is also asked not to introduce heavily scented flowers into their work areas. It is normally these types of scents that cause physical allergic reactions.

We are not living in a scent free world and there may be occasions where new products might cause a reaction to one of your co-workers. If an individual has an allergic or physical reaction to a scent, you may be asked by that individual or management to wash it off or otherwise remove the problem.

All occasions will be dealt with in accordance with the individual circumstances. Where the safety and health of an employee is involved, each occasion will be treated as a serious matter.

It is our responsibility as individuals and management to work towards a safe and supportive working environment for all.

Thank you for your support.