Bills Committee on
Smoking (Public Health) (Amendment) Bill 2005

Administration's response to the issue of
expansion of statutory no smoking area

PURPOSE

1.   This paper sets out the Administration's latest position on the proposed amendment to expand the statutory no smoking area under the Smoking (Public Health) (Amendment) Bill 2005 and respond to the views and demands expressed on the Bill by various industry groups and organisations at the Legislative Council meetings on 6 October 2005, 24 October 2005 and 31 October 2005.

Background

2.   Under the existing Smoking (Public Health) Ordinance (the "Ordinance"), restaurants with seating capacity of less than 200 persons are not subject to statutory smoking ban.   Those providing indoor seating accommodation for over 200 persons are required to designate at least one-third of such area as smoke-free area.   In practice, this requirement has failed to protect restaurant goers and employees from secondhand smoking because tobacco smoke can diffuse from smoking areas to no smoking areas. Operationally, it has caused inconvenience to restaurant management and conflicts between smokers and non-smokers.   In other public areas and workplaces, the public is also subject to the impact of secondhand smoking.

3.   To address these problems, we propose amending the Ordinance to designate indoor workplaces and public areas as statutory no smoking areas. We also propose to prohibit smoking in the indoor areas of all licensed restaurants, regardless of their size and seating capacity.   The smoking ban will also apply to indoor areas of bars and karaokes, mahjong parlors, commercial bathhouses and public markets etc.

4.   To enable the above premises to adapt to the new arrangements, we have incorporated an adaptation period of 90 days in the provisions on the expansion of no smoking area under the Bill.

Focus of discussion

5.   However, since the introduction of the Bill, we note that the restaurant and entertainment sectors have expressed concerns about the possible impact that the Bill will have on their trades.   Earlier on they made representations to the Bills Committee and the Administration about the specific operational features of their trade and potential economic loss brought by the Bill,

including worries that the smoking ban might affect customer patronage thus reducing the profits of the operators and resulting in staff losing their jobs.

6.   In the past months, this Bureau has held numerous discussions with the Bills Committee and industry representatives.   During the discussions, there were suggestions that the Government should issue two types of licenses to operators, i.e. smoking and non-smoking licenses, in order to provide these operators and their customers with a choice.   We are of the view that such proposal is not feasible on two major considerations: 1) the proposal will not effectively protect customers and staff members from exposure to secondhand smoking, which is contrary to the principle of safeguarding public health; 2) issuing two types of licenses will lead to unfair competition as the same trades are not accorded equal treatment.

7.   There were also proposals urging the Government to allow indoor establishments to set up "smoking rooms" to segregate smoking and non-smoking customers, or to allow customers to smoke during certain periods of time (mainly night time) and forbid smoking during other periods (mainly day time).   In this regard, as international organizations (including the World Health Organization) have not been able to develop a so-called "safety standard" for air quality in indoor smoking locations, Hong Kong is not in a position to arbitrarily draw up "healthy" or "safe" air quality standards for "smoking rooms" and "non-smoking rooms" with scientific basis and which is acceptable to the medical sector and the international community.   Moreover, medical evidence has proved that toxic substance in cigarettes would remain in the rooms for a prolonged period of time.   Thus, the above proposal will not protect customers from the impact of passive smoking.   In fact, to date, there is no internationally approved ventilation system able to completely extract the residual secondhand smoke from the rooms.   You may wish to take reference from the documents published by some international organizations in this respect at **Annex**.

8.   In the interest of public health, we have been implementing our tobacco control policy in a progressive manner for more than two decades.   We believe that it is time for us to take an important step forward in our tobacco control efforts.   The Legislative Council, medical sector, anti-smoking groups, district personalities and the general public have expressed support for our work on tobacco control.   In addition, according to estimations made by economists at the World Bank, implementation of a total smoking ban in indoor workplaces may help employers achieve savings on expenditures such as cost arising from staff absence and sickness, staff medical expenses, life and fire insurance, maintenance fees and cleansing fees etc.

The Administration's latest position

9.   We have to reiterate that in principle, we consider it absolutely

unnecessary for smokers, customers and staff members to be exposed to secondhand smoking.   However, we understand that certain industries affected more by the new legislation might need more flexible arrangements to help them tide over the regulatory changes, transform their mode of operation, as well as to facilitate smokers among their customers to gradually adjust to the legislative requirements.   We have to strike a balance between these two considerations.   We thus propose that in implementing the indoor smoking ban, we would allow the industries listed below to make the following adjustments during the adaptation period:

	Original adaptation period under the Bill	Currently proposed implementation date of the smoking ban
Indoor workplaces, restaurants, billiard rooms, karaokes and bars open to all age groups	90 days	1 January 2007
Bars open to those aged 18 and above only, mahjong parlors, commercial bathhouses, mahjong clubs and nightclubs	90 days	1 July 2009

Major Considerations

10.   In view of the broad-based community support for a comprehensive ban on smoking in indoor workplaces and indoor areas of eating premises, and the fact that customers of eating premises are from all age groups, including children, elders, pregnant women and non-smokers, we maintain that a comprehensive ban on indoor smoking should be enforced in these premises first in order to protect the health of the public and the employees.   We also consider it necessary to prohibit smoking in billiard rooms, karaoke establishments, and bars open to persons of all ages as early as possible to protect all customers, regardless of social background and occupation.   We understand that many youngsters, students and non-smokers patronize these establishments and the only way to effectively protect them against the hazards of passive smoking is to ban smoking in these premises as soon as possible.

11.   Local bars operate in a unique mode.   Unlike other countries and places, many of our bars operate in high-rise commercial buildings. Requiring smoker-customers to smoke outside of bars may cause inconvenience for bar operators and customers.   To help bars change their

mode of operation or even move to other places, we propose that the implementation date of the smoking ban be 1 July 2009 for bars open to persons aged 18 or above only. Such bars will also be required to display signs outside their premises to declare that only adults are admitted.

12.   In addition, the four categories of establishments in respect of which the effective date of the smoking ban is set for 1 July 2009 are premises licensed under section 22(1)(b) of the Gambling Ordinance (Cap 148) for the playing therein of games in which mahjong/tin kau tiles are used, commonly known as mahjong/tin kau parlors, commercial bathhouses licensed under the Commercial Bathhouses Regulation (Cap 132I) and mahjong clubs and nightclubs for which no special licenses are required. Taken into account operators' views that most of their customers and employees are adult smokers and the fact that their unique mode of operation makes it difficult for customers to smoke in the outdoor areas and return to the premises afterwards, we are of the view that these establishments might need a longer adaptation period. New provisions stipulating the requirements for operating mahjong clubs and nightclubs will be incorporated in the Bill.

13.   We hope that a longer adaptation period will help strike a balance between achieving our ultimate goal of a comprehensive ban on smoking in indoor places and addressing the needs of operators. We also hope that operators will provide training to their staff members to perform anti-smoking duties, help them quit smoking, and explain the new no-smoking arrangements to customers during the adaptation period. Meanwhile, the Government will step up its tobacco control and smoking-cessation efforts. By mid-2009, the community as a whole, including patrons of the said premises, will have accepted and grown accustomed to the no-smoking regulations. By then, people from all walks of life will find it relatively easier to accept and adjust to having a smoking ban in places of entertainment.

14.   At the same time, although we are proposing a relatively long adaptation period for the above-mentioned entertainment premises, we hope that these premises could proactively set up some "non-smoking" rooms or designated areas during the adaptation period to reduce the possible harm secondhand smoking could pose on non-smoking customers in an indoor environment.

Trade Consultation

15.   All along, we have maintained communication with the representatives of the catering and entertainment industries. Representatives from the catering industry hoped that the Administration would lengthen the adaptation period, allowing them more time to make preparations of the ban. Other representatives hoped that the Administration would allow "smoking rooms" to be established in existing eating premise, until all other public premises

have gone smokefree. Representatives of the entertainment industry, however, expressed that because of the uniqueness of their industry, the most desirable arrangement would be to exempt them altogether from the smoking ban, setting up smoking / non-smoking rooms or smoking ban only in certain periods of a day.

Cigar Shops

16.   After careful consideration, we have decided to exempt "cigar-tasting rooms" in cigar shops from the smoking ban as we understand that their sales mode involves allowing customers to taste cigars in the premises before making any purchase.   However, we must emphasize that this exemption is applicable to shops selling cigars **only**. Such shops will be required to designate fully-enclosed rooms with separate ventilation systems as "cigar-tasting rooms" for customers.   Employers are prohibited from asking their staff to provide any service in these rooms.

Follow-up Action

17.   Under current legislation and licensing requirements, there is little difference between the licenses issued to bars, mahjong clubs and nightclubs and those issued to certain food premises or restaurants.   To enforce different tobacco control arrangements, it is necessary to give clearer and more specific definitions to these establishments.   We will specify, in legal provisions, the business characteristics of the three types of establishments for which no special licences are required, namely "mahjong clubs", "nightclubs", and "bars open to persons aged 18 and above only".   The aim is to plug any loophole through which operators of other businesses may seek to enjoy a longer adaptation period by merely changing the name of their premises.

18.   The Bills Committee is invited to note the Administration's latest position.   We will prepare Committee Stage Amendments on the relevant clauses for the Committee's consideration in due course.

Health, Welfare and Food Bureau
January 2006

frequently asked questions about second-hand smoke

What is second-hand smoke?

Second-hand smoke results from the "sidestream" smoke that comes from the burning tip of a cigarette and the "mainstream" smoke that is exhaled by the smoker. Second-hand smoking, passive smoking, involuntary smoking or exposure to environmental tobacco smoke (ETS) all refer to the phenomena of breathing other people's smoke.

What's in second-hand smoke?

Second-hand smoke is the smoke that individuals breathe when they are located in the same air space as smokers. Second-hand smoke is a mixture of exhaled mainstream smoke from the tobacco user, sidestream smoke emitted from the smoldering tobacco between puffs, contaminants emitted into the air during the puff, and contaminants that diffuse through the cigarette paper and mouth end between puffs.[1] It is a complex combination of over 4000 chemicals in the form of particles and gases. It includes irritants and systemic poisons such as hydrogen cyanide, sulphur dioxide, carbon monoxide, ammonia, and formaldehyde. It also contains carcinogens and mutagens such as arsenic, chromium, nitrosamines, and benzo(a)pyrene. Many of the chemicals, such as nicotine, cadmium and carbon monoxide, damage reproductive processes. Second-hand smoke is a major indoor air pollutant. It has been classified by the United States Environmental Protection Agency as a "class A" or human carcinogen for which there is no safe level of exposure.

How does second-hand smoke affect health?

Non-smokers who breathe second-hand smoke suffer many of the same diseases as regular smokers. Heart disease deaths as well as lung and nasal sinus cancers have been causally associated with second-hand smoke exposure. Second-hand smoke also causes a wide variety of adverse health effects in children including bronchitis and pneumonia, development and exacerbation of asthma, middle ear infections, and "glue ear", which is the most common cause of deafness in children. Exposure of non-smoking women to second-hand smoke during pregnancy reduces fetal growth, and postnatal exposure of infants to second-hand smoke greatly increases the risk of sudden infant death syndrome (SIDS). Tobacco smoke also causes immediate effects such as eye and nasal irritation, headache, sore throat, dizziness, nausea, cough, and respiratory problems.

What is the extent of the problem of second-hand smoke?

Exposure to second-hand smoke is a widespread problem that affects people from all cultures and countries. This exposure occurs throughout ordinary situation in daily life: in homes, at work and school, on playgrounds and public transport, in restaurants and bars--literally everywhere people go.

Surveys conducted around the world confirm widespread exposure. One survey estimated that 79 % of Europeans over age 15 were exposed to second-hand smoke. Another estimated that 88% of all non-smokers in the United States were exposed to second-hand smoke. Recent data from South Africa shows that 64 % of children below age five in Soweto live with at least one smoker in the house. The Cancer Society of New Zealand reports that second-hand smoke is the third largest killer in the country, after active smoking and alcohol use.

Are well-ventilated non-smoking sections the answer?

No. Although good ventilation can help reduce the irritability of smoke, it does not eliminate its poisonous components. When smoking sections share ventilation with non-smoking areas, the smoke is dispersed everywhere. Smoking sections only help protect non-smokers when they are completely enclosed, have a separate ventilation system that goes directly outdoors without re-circulating air in the building, and when employees are not required to pass through them.

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[1] Environmental Protection Agency. Respiratory health effects of passive smoking: Lung cancer and other disorders. Washington, D.C.: Office of Health and Environmental Assessment, 1992.

Second-hand smoke kills. Let's clear the air. World No Tobacco Day, 31 May 2001   www.paho.org
Pan American Health Organization/World Health Organization

So how can we protect people from second-hand smoke?

Governments can regulate and legislate smoking bans in public places, educate people about the dangers of second-hand smoke, and provide support for those who wish to quit smoking. Employers can initiate and enforce smoking bans in workplaces. Parents can stop smoking in the house and car, particularly around children, and ask others to do the same. They can also ensure that their children's day-care, school and after-school programs are smoke-free. Individuals can let their family, friends and co-workers know that they do mind if they smoke near them.

Work with your local organizations to initiate actions on second-hand smoke.

Are smoking restrictions hard to enforce?

Most of the public -- even smokers -- support smoke-free spaces. Smoking bans in workplaces and public places work when people are aware of them. The public should know in advance that smoking bans are being implemented, and they should know the health reasons for smoking bans. Good education and advance planning lead to self-enforcement and success of smoking restrictions.

Do smoking restrictions hurt business?

No. Most employers who go smoke-free save money by increasing productivity, lowering maintenance and cleaning costs, and lowering insurance coverage. Studies of sales receipts from restaurants and bars in the US before and after smoking bans have found that sales usually stay the same or go up after a smoking ban.

...then why are smoke-free places so rare?

The tobacco industry spends millions to fund misinformation campaign on second-hand smoke. Scientists and consultants have been hired to not only confuse the public about the validity of scientific data, but to also create doubt about the researchers who produce the data and about the science itself. In addition to attacking legitimate studies, bogus research projects that downplay the seriousness of second-hand smoke are funded and promoted.

Tobacco lobbyists and lawyers deflect government regulation of second-hand smoke, and this has been supplemented, aided by huge tobacco contributions to political campaigns. When money and misinformation don't work, the industry promotes false solutions to control second-hand smoke.

Although evidence shows that ventilation is *not* an effective solution to the problem of second-hand smoke, the industry continues to push for this option, even forming indoor air consulting "front groups" who downplay the risks of second-hand smoke.

A campaign to promote "courtesy of choice" as an alternative to banning smoking in public places has been launched worldwide. This implies that the serious problem of second-hand smoke can be solved merely by smokers asking for permission before they light up, or by having separate smoking and non-smoking sections. Second-hand smoke is thus portrayed as a mere annoyance for non-smokers, rather than as a health issue. The industry also funds smokers rights' movements to create so-called independent opposition to smoking bans. People concerned about second-hand smoke are then branded as zealots.

Fortunately, tobacco industry opposition to clean air can be defeated. Your actions will make a difference. Become a leader in your workplace, your organization, your community, and your home. Speak up for clean air and make your voice heard! Let's clear the air.

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how second-hand smoke harms and kills non-smokers

Second-hand smoke is a complex mix of thousands of chemicals. At least 40 substances in second-hand smoke have been shown to cause cancer. Tobacco smoke also contains large quantities of carbon monoxide, a gas that inhibits the blood's ability to carry oxygen to body tissues including vital organs such as the heart and brain, as well as other substances that contribute to heart disease and stroke.

According to a 1997 report of the California Environmental Protection Agency, the estimated annual tobacco-induced death rates among non-smokers in California range from 147 to 251 people per million inhabitants. If the same rate applied in the European Union, this would work out to an annual toll of 55,000 to 94,000 victims of second-hand smoke. In China, the same rate would result in a staggering death toll of 185,000 to 317,000.

Exposure to second-hand smoke can cause both long-term and immediate effects on human health. Immediate effects include irritation of the eyes, nose, throat and lungs. Nonsmokers, who are generally more sensitive to the toxic effects of tobacco smoke than smokers, may experience headaches, nausea, and dizziness. Second-hand smoke places extra stress on the heart and affects the body's ability to take in and use oxygen. The long-term health impact of second-hand smoke is increased cancer and heart disease rates after years of exposure. For asthma sufferers, however, tobacco smoke can cause immediate danger by triggering attacks. The majority of asthma sufferers report symptoms ranging from discomfort to acute distress from exposure to second-hand smoke.

second-hand smoke and children

Children's vulnerability to second-hand smoke is a particular concern, both for medical and ethical reasons. Children's lungs are smaller and their immune systems are less developed—which make them more likely to develop respiratory and ear infections triggered by second-hand smoke. Because they are smaller and breathe faster than adults, they breathe in more harmful chemicals per pound of their weight than an adult would in the same amount of time. Finally, children simply have less choice than adults. They are less likely to be able to leave a smoke-filled room if they want to: infants cannot ask, some children may not feel comfortable asking, and others may not be allowed to leave if they do ask.[1]

Extensive studies of the health effects of second-hand smoke on children found the following:

- Exposure to tobacco smoke causes an increase in bronchitis, pneumonia and other respiratory illnesses.
- It causes both acute and chronic middle-ear infections. In 1997, the California Environmental Protection Agency estimated that this effect alone accounted for 0.7 to 1.6 million visits to doctors per year across the United States.[2] A 1996 study suggested that 13% of ear infections in the United States were caused by tobacco.[3]
- It triggers asthma attacks in children who already have asthma and some authorities have concluded that it actually induces asthma in healthy children: in 1992, the U.S. Environmental Protection Agency estimated that every year, second-hand smoke exposure resulted in 8,000 to 26,000 new cases of asthma amongst children.[4]

[1] Canadian Health Network, www.canadian-health-network.ca.
[2] Office of Environmental Health Hazard Assessment of the California Environmental Protection Agency, *Health Effects of Exposure to Environmental Tobacco Smoke*, 1997. http://www.oehha.org/air/environmental_tobacco/finalets.html .
[3] DiFranza J and Lew R, "Morbidity and Mortality in Children Associated with the Use of Tobacco Products by Other Peole," *Paediatrics*, 1996; 97:560-568.
[4] U.S. Environnemental Protection Agency (U.S. EPA, 1992). *Respiratory Health Effects of Passive Smoking: Lung Cancer and Other Disorders.* U.S. EPA Publication No. EPA/600/6-90/006F.

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- Exposure to second-hand smoke very substantially increases the risk of Sudden Infant Death Syndrome (SIDS), also known as crib or cot death. This may be due to *in utero* exposure to tobacco smoke or exposure to second-hand smoke as infants. A WHO panel of international experts in 1999 concluded that maternal smoking causes one-third to one-half of SIDS cases. [5]
- Smoking by pregnant women and exposure of non-smoking pregnant women to tobacco smoke reduces the average birth weight of their babies. Babies with low birth weight may face an increased risk of developing medical problems and learning disabilities.

second-hand smoke in the workplace

Second-hand smoke also poses a threat in the workplace. Toxins and carcinogens spread quickly throughout offices, hotels, restaurants and other indoor places of work. Most workers are not in a position to change their work environment or leave their jobs to protect their health. In many cases, where smoke-free workplaces are not guaranteed, employees find themselves obliged to spend the majority of their waking hours in a health-threatening situation. In the case of a restaurant employee, the table below shows a selection of chemicals he or she would inhale directly in a 300m2 area during one 8-hour shift! [6]

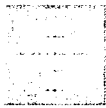| chemical	amount (ug)	chemical	amount (ug)
carbon monoxide	5606	**benzo[a]pyrene**	**18**
tar	3128	propionaldehyde	17
nicotine	678	resols	15
acetaldehyde	**207**	hydrogen cyanide	14
nitric oxide	190	styrene	13
isoprene	151	butyraldehyde	12
resorcinol	123	**acrylonitrile**	**11**
acetone	121	**crotonaldehyde**	**10**
toluene	66	**cadmium**	**9.7**
formaldehyde	**54**	1-aminonaphthalene	8.5
phenol	44	**chromium**	**7.1**
acrolein	40	**lead**	**6.0**
benzene	**36**	**2-aminonaphtalene**	**5.2**
pyridine	33	**nickel**	**4.2**
1,3-butadiene	**25**	3-aminobiphenyl	2.4
hydroquinone	24	**4-aminobiphenyl**	**1.4**
methyl ethyl ketone	23	**quinoline**	**1.3**
catechol	22		

The chemicals in bold are known carcinogens. Among this list are irritants, mutagens, toxins, and substances that increase blood pressure, promote tumors, effect the central nervous system, damage lungs and cause kidney malfunction.

Whether it is at home, at work, at school, in restaurants, theatres or bars—second-hand smoke is a proven health threat to the young and old, from all walks of life, in all countries.

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Why should workplaces be smoke-free?

Smoking harms health: Smoking harms the health of smokers and those around them. Smokers are at far higher risks of strokes, heart attacks and other cardio-vascular diseases; cancers of the lungs, mouth, larynx, bladder, pancreas, kidneys and stomach; emphysema, bronchitis, and tuberculosis. These diseases cause serious illness, disability and premature death. Tobacco causes 4 million deaths worldwide each year, and the numbers are rising fast.

Tobacco smoke also harms non-smokers exposed to so-called second-hand smoke or environmental tobacco smoke (ETS). In addition to smell and irritation to eyes, ETS exposure increases the risk of lung cancer and cardio-vascular and respiratory diseases. In the USA alone, each year ETS kills an estimated 35,000 to 65,000 adult non-smokers from heart disease and 3,000 non-smokers from lung cancer (California Environmental Protection Agency, 1997 and U.S. Environmental Protection Agency, 1993). This is a small fraction of global deaths from ETS.

ETS exposure is common in workplaces. In 1996, an estimated 130 million adult non-smokers in China were exposed to workplace ETS. In the UK in 1999, more than 3 million non-smokers were continuously or frequently exposed to tobacco smoke at work. In France, where there are laws restricting smoking in public spaces, 40% of employees are still exposed to ETS. ETS can interact with chemicals and radiation in workplaces to produce an additive or multiplicative effect and increase significantly the risk of many occupational diseases. In some countries, employers have a legal responsibility to protect the health of their employees. Smoke-free workplaces can reduce employers' legal liability, create safer working environments, improve workers' health and enhance corporate image.

Employers who keep their workplaces smoke-free and help employees to quit enjoy net benefits

Smoking costs employers money: Employers bear direct and indirect costs as a result of employees' smoking, including:
- More employee absenteeism
- Decreased productivity on-the-job
- Increased early retirement due to ill health
- Higher annual health-care costs for smokers and higher health insurance costs

- Higher life insurance premiums
- Higher maintenance and cleaning costs
- Higher risk of fire damage, explosions and other accidents related to smoking
- Higher fire insurance premiums.

These costs add up to significant amounts. A 1996 study of Scottish workplaces estimated the total related costs of employee smoking in Scotland at around three quarters of a billion US$ per year (smoking related absence: $60 million; productivity losses: $675 million; losses from fire: $6 million (Parrot et al., 1996). A 1995 Canadian study estimated the cost to employers at $3,022 per smoker per year (in 2002 US$; adjusted for inflation from the original estimate of $2,565 in 1995 US$. Conference Board of Canada). Cost data from developing countries are lacking.

The adverse effects of ETS exposure on health and productivity of non-smoking employees add to employers' smoking-related costs.

The benefits from making workplaces smoke-free are far larger than the costs. Cessation programs are relatively low-cost and yield financial returns over the long run that far outweigh their costs. A theoretical model for the US estimates potential long term net benefits of a smoking cessation program at around $4.5 million for large employers (Warner et al., 1996).

Fears in the hospitality industry (hotels, restaurants etc.) that smoking bans may damage business interests are largely unfounded. Studies of hotels, bars and restaurants in several U.S. states, Canada and Australia all show that smoking bans do not result in business drop-off.

What can employers do about workplace smoking?

Employers can protect the health of their employees and reduce smoking-related costs by making workplaces smoke-free, and implementing programs to encourage and help smokers to quit. Smoke-free workplaces reduce ETS exposure for all workers, reduce employees' daily tobacco consumption, increase quit rates, and reduce cleaning costs and fire risk. Smoke free policies are easy to implement. Compliance is usually high, especially if employees (smokers and non-smokers) have helped develop the policy and are well-informed about its rationale. Smokers are usually the minority. Surveys show that many smokers and almost all non-smokers support clean air policies.

The goal should be a completely smoke-free workplace. There is no safe level of exposure to ETS. Ventilation cannot "clear the air" and protect workers from exposure. Enclosed smoking rooms may be used as a transitional arrangement, but should be phased out as quickly as feasible. Furthermore, provision of well-ventilated smoking rooms can be costly.

On-site smoking cessation programs make it easier to implement smoke-free workplaces and increase the benefits for employees and employers. Worksite cessation programs are effective in reducing smoking prevalence among employees. A meta-analysis of 20 studies of worksite smoking cessation programs found an average quit rate after 12 months of 13%, much higher than the national average among all smokers of 2.5% (US, 1990 data). Quit rates were even higher for heavy smokers. Cessation programs are relatively low-cost and are highly cost-effective (Novotny et al., 2000).

As people become better informed about the harm that tobacco products cause to smokers and those who live and work with them, smoke-free environments are becoming the norm. Most airlines, many workplaces and other enclosed public places are now smoke-free. There is a global trend towards safer, cleaner indoor environments.

Goals: Protect workers from harmful effects of second-hand smoke; encourage smokers to quit, to gain health benefits for employees and economic benefits for employers.

Main Activities	Beneficiaries/ Target Groups	Indicators
Make workplaces smoke-free, protect employees from second-hand smoke exposure		
• establish a written policy with active participation of employees and managers • communicate the policy and its rationale clearly and sanctions for non-compliance • implement the policy according to agreed timetable • monitor, enforce and adjust the policy if necessary	all employees (including managers)	✓ written policy exists that clearly states rationale, time frame, and where – if at all – smoking is permitted in work place ✓ % of employees exposed to ETS at work
• decide whether the policy should apply to customers, visitors and clients (preferably yes)	customers, visitors and clients	
Help employees to quit smoking, reduce risks of disease and premature death caused by smoking		
• for workers who want to quit, ensure access to trained counsellors, cessation support and pharmacological treatments, including nicotine replacement therapy • provide information to all workers on benefits of quitting and how to support colleagues	employees who smoke	✓ % of smokers who attempt to quit each year ✓ % of quitters still not smoking 12 months after quitting ✓ % of employees who smoke (and decreases in this prevalence)

How to make a workplace smoke-free

☐ **Establish a workplace committee.** The committee should include representatives from all parts of the organization. Senior management support and commitment are crucial for the success of the policy.

☐ **Involve employees and workers' organizations.** Involving employees fully is essential to ensure their cooperation in implementing the policy and to incorporate their suggestions in the program. It is important to know the attitudes of employees and management towards smoking in the workplace before embarking on a smoke-free initiative. Use questionnaires, meetings and focus groups to gather the necessary information. Include representatives from across the organization. Listen to smokers and non-smokers and make sure that employee groups who have high rates of smoking are fully engaged.

☐ **Formulate a written policy.** The committee should formulate a policy that clearly states objectives and how to achieve them. If possible, integrate the policy with other programs and procedures related to health and safety in the workplace. The policy should include:

- purpose of the policy (to avoid the harmful effects of smoking and ETS on health)

- a link between the smoke-free policy and corporate values (e.g. performance or employees as an asset)

- time frame for implementation

- a clear statement of whether smoking is permitted on the premises and if so where

- number and duration of acceptable smoking breaks (breaks should not exceed those for non-smokers)

- details of support available for smokers, such as counselling and cessation support

- disciplinary actions or consequences of non-compliance

- names of contact persons who can answer questions related to the policy.

☐ **Communicate the policy to employees.** Inform employees from the outset and well before implementation. Focus on smoke, not the smoker, and on health and safety, not on individual rights. Emphasizing benefits of a clean air policy for both smokers and non-smokers is less confrontational and probably more acceptable than emphasizing individual rights of non-smokers. Use available communication tools to reach out to all employees, especially supervisors who will

need to implement the policy, and smokers, who will need to adapt to the changes.

☐ **Provide information and support to smokers.** Provide employees with information about the risks of smoking and benefits of quitting. Use the organization's newsletter, posters, flyers, email and the intranet to deliver the information. Offer practical advice on how to quit. Provide support to smokers willing to quit, which can include time off work to attend counselling and cessation groups, and access to pharmacological cessation products such as nicotine replacement therapy or bupropion. Quitting is very difficult because nicotine is highly addictive; these products increase the success rate of quit attempts. Most smokers make 4–11 quit attempts before finally succeeding.

☐ **Determine disciplinary measures.** Develop a written disciplinary process and communicate it clearly to all employees. Monitor to ensure proper enforcement by managers.

☐ **Follow a time table for implementation.** The time table should have clear stages. After the policy is announced, a transition period is required before implementation starts to give employees time to adapt to the new environment. The time frame should not be too long, lest momentum is lost. Development and implementation should generally take 4–12 months.

☐ **Provide training.** Train middle managers and supervisors to communicate and enforce the policy. Provide training to workers' representatives and peer educators on how to stop smoking and how to provide support for colleagues. Train health and safety professionals to provide advice to smokers or refer workers to available cessation services in-house or to services outside the workplace.

☐ **Evaluate and monitor implementation.** Periodically assess whether the policy is achieving its objectives. Solicit staff views and review any problem areas, and decide whether the policy needs updating. Review is recommended every 12–18 months.

Resources

INSTITUTIONS

☐ Safework Program of the International Labor Organization www.ilo.org/safework
Carin Håkansta hakansta@ilo.org

☐ Office on Smoking and Health of the US Centers for Disease Control and Prevention
http://www.cdc.gov/tobacco/index.htm

DOCUMENTS AND DATA

General Information for Employers:

- "Why Smoking in the Workplace Matters: An Employer's Guide", WHO, Regional Office for Europe, 2002. A publication of the WHO European Partnership Project to Reduce Tobacco Dependence. Online at: http://www.euro.who.int/document/e74820.pdf, or hard copy from Tobacco Free Initiative, WHO Regional Office for Europe. Explains the rationale for developing an organizational tobacco control policy from an employer's perspective. Concise, readable and clear.

- "Workplace smoking: trends, issues and strategies", Health Canada, 1996. Available online at: http://www.hc-sc.gc.ca/hppb/cessation/air/workplace_smoking/index.html or from the Publications Unit, Health Canada. Telephone: (613) 954-5995 Fax: (613) 941-5366. Comprehensive overview – trends, issues, impact of restrictions, economics, compliance, public support.

Economic Analysis:

- "Smoking and the bottom line: costs of smoking in the workplace". The Canadian Conference Board. Toronto, 1997. Available online at: http://www.hc-sc.gc.ca/hppb/cessation/air/bottomline/report.html or from the Publications Unit, Health Canada. Telephone: (613) 954-5995 Fax: (613) 941-5366. Short study that calculates costs to employers of employee smoking (productivity, absenteeism, insurance premiums and smoking areas).

- The Economics of Health, Safety and Well-being; Barefoot Economics: "Assessing the economic value of developing an healthy work environment", Finnish Ministry of Social Affairs and Health and ILO- Safe Work programme. http://www.ilo.org/public/english/protection/safework/econo/barefoot.pdf A simple guide on how to estimate costs and benefits of measures to improve workplace safety. A practical tool for use by small businesses, and other decision makers.

- KE Warner, RJ Smith, DG Smith, BE Fries, "Health and Economic Implications of a Work-Site Smoking-cessation Program: A Simulation Analysis," J. of Occupational & Environmental Med. 1996;38: 981-992. A comprehensive simulation analysis of a workplace smoking cessation program that includes benefits to society as well as to employers. A helpful

guide for employers considering potential costs and benefits of smoking cessation programs.

Evidence:

- J Repace, I Kawachi, S Glantz, "Fact Sheet On Secondhand Smoke", UICC, 1999. http://www.tobaccopedia.org/cgi-bin/search/seek.cgi?ID=963401235 Comprehensive review and summary of evidence on health hazards caused by Environmental Tobacco Smoke. Explains clearly why ventilation and air cleaning cannot reduce second-hand smoke to acceptable levels. Also summarizes studies on impact of clean air policies on revenues of hotels, restaurants and bars.

Practical Guides:

- "Tobacco in the Workplace: Meeting the Challenges. A Handbook for Employers", WHO, Regional Office for Europe, 2002. A publication of the WHO European Partnership Project to Reduce Tobacco Dependence. Online at: http://www.euro.who.int/document/e74819.pdf, or hard copy from Tobacco Free Initiative, WHO Regional Office for Europe. A step-by-step guide on how to adopt a strong and cost-effective response to the problem of smoking in the workplace.

- "Making Your Workplace Smokefree: A Decision Maker's Guide", US Department of Health and Human Services, 2000. Available online at: http://www.cdc.gov/tobacco/research_data/environmental/etsguide.htm Details on the costs, consequences, benefits of a smoke free workplace policy. The guide provides step-by-step directions on how to develop and implement smoke free policies.

- "Guidebook on Tobacco Reduction in the Workplace: an Alberta Perspective", Alberta Tobacco Reduction Alliance, 1999. Available online at: http://www.smoke-free.ca/WNTD2001-cdcontents/wntd2001-letscleartheair/Resources/Alberta/ATRAguidebook.pdf A step-by-step guide to help companies plan and implement a smoking-reduction program.

- J. Mackay et al., "A Guide to Creating a Smoke-free Workplace". Provides practical and specific help, including an example of an employee survey and smoke-free policy, detailed information on costs and benefits. Available online, hot linked to this fact sheet at www.worldbank.org/hnp, at a glance series (by kind permission of J. Mackay).

Online versions of the at a glance" series, with e-linkages to resources and more information, are available on the World Bank Health, Nutrition and Population web site: www.worldbank.org/hnp

Environmental Tobacco Smoke

Position Document
Approved by ASHRAE Board of Directors
June 30, 2005

AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR-CONDITIONING ENGINEERS, INC.
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Executive Summary

This position document has been written to provide the membership of the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) and other interested persons with information on the health consequences of exposure of nonsmokers to tobacco smoke in indoor environments, and on the implications of this knowledge for the design, installation and operation of heating, ventilating, and air-conditioning (HVAC) systems. ASHRAE's sole objective is to advance the arts and sciences of heating, refrigeration, air conditioning and ventilation, and their allied arts and sciences and related human factors, for the benefit of the public. Therefore, the health effects of indoor exposure to emissions from cigarettes, cigars, pipes, and other tobacco products have long been relevant to ASHRAE.

For more than three decades, researchers have investigated the health and irritant effects among non-smokers exposed to tobacco smoke in indoor environments. The preponderance of credible evidence links passive smoking to specific diseases and other adverse health effects in people. A number of national and global review groups and agencies have concluded that exposure of nonsmokers to tobacco smoke causes adverse effects to human health. No cognizant authorities have identified an acceptable level of environmental tobacco smoke (ETS) exposure, nor is there any expectation that further research will identify such a level.

International experience has been gained over several decades with using various strategies to reduce ETS exposure, including separation of smokers from nonsmokers, ventilation, air cleaning and filtration, and smoking bans. Only the last provides the lowest achievable exposures for nonsmokers and is the only effective control method recognized by cognizant authorities (see *Findings of Cognizant Authorities*). At the time of this writing, several nations, eleven states in the U.S. and hundreds of municipalities and other jurisdictions have banned tobacco smoking completely in all public buildings and workspaces. The U.S. government has banned smoking in its workplaces. Experience with such bans documents that they can be effective, practically eliminating ETS exposure of non-smokers. While exposure is decreasing internationally because of these smoking bans in public and private buildings, and a decrease in the prevalence of smoking, substantial portions of the population are still regularly exposed in workplaces, homes and public places, such as entertainment venues.

ASHRAE concludes that:

- It is the consensus of the medical community and its cognizant authorities that ETS is a health risk, causing lung cancer and heart disease in adults, and exacerbation of asthma, lower respiratory illnesses and other adverse effects on the respiratory health of children.
- At present, the only means of effectively eliminating health risk associated with indoor exposure is to ban smoking activity.
- Although complete separation and isolation of smoking rooms can control ETS exposure in non-smoking spaces in the same building, adverse health effects for the occupants of the smoking room cannot be controlled by ventilation.
- No other engineering approaches, including current and advanced dilution ventilation or air cleaning technologies, have been demonstrated or should be relied upon to control health risks from ETS exposure in spaces where smoking occurs. Some engineering measures may reduce that exposure and the corresponding risk to some degree while also addressing to some extent the comfort issues of odor and some forms of irritation.
- An increasing number of local and national governments, as well as many private building owners, are adopting and implementing bans on indoor smoking.
- At a minimum, ASHRAE members must abide by local regulations and building codes and stay aware of changes in areas where they practice, and should educate and inform their clients of the substantial limitations and the available benefits of engineering controls.
- Because of ASHRAE's mission to act for the benefit of the public, it encourages elimination of smoking in the indoor environment as the optimal way to minimize ETS exposure.