

**OCCUPATIONAL  
HYGIENE**



Occupational Safety and Health Branch  
Labour Department



**Guidelines  
for Good  
Occupational  
Hygiene  
Practice in a  
Workplace**



Occupational Safety & Health Council

**This guidebook is prepared by the  
Occupational Safety and Health Branch  
Labour Department**

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## Preface

The Occupational Safety & Health Ordinance was enacted in May 1997 to provide for the safety and health protection of all employees at work. The Occupational Safety & Health Regulation made under the Ordinance covers a wide range of basic health, safety and welfare matters as well as manual handling operations.

To assist employers and employees in assessing their own work environment, we have prepared this general booklet on good occupational hygiene practice. It should be read in conjunction with another booklet "Guidance Notes on Fire Safety at Workplaces" published also by this Department. For assessment of manual handling operations, please refer to the booklet "Guidance Notes on Manual Handling Operations".

The law only stipulates the minimum requirements for all workplaces. The general compliance standards referred to in this booklet should be applicable to most workplaces. For some trades which operate in rather unusual working environments, we will develop specific guidelines to address their particular problems after a process of consultation.

The language used in this booklet is deliberately kept simple and easy to understand. We sincerely hope that both employers and employees can work together on the practical suggestions made in this booklet, and introduce improvements to the workplace where appropriate. A caring employer's reward, we believe, is "Good Health Means Good Business"!

Occupational Safety & Health Branch  
Labour Department

HYGIENE  
FACTS

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# 1\_Housekeeping

Good housekeeping means cleanliness and good order of equipment and facilities in a workplace. It needs planning and co-operation. Housekeeping is the first step towards good occupational hygiene practice.

*A clean and tidy workplace is essential to ensure the health and safety of the workers.*



## 1.1\_Cleanliness

Regular cleaning of workplaces, equipment and devices should be carried out to ensure an adequate level of workplace hygiene. A designated person should be assigned the responsibility to oversee such operations.

- ▶ Rubbish or waste should be kept in suitable containers or litter-bins which are located at convenient locations in the workplace. The containers should be emptied daily, preferably near the end of each working day. Accumulation of dirt and refuse within the workplaces must be avoided. They should be removed with a suitable method from the floor or work benches regularly with a frequency compatible with the nature of the work conducted. Floor cleaning can be done by washing, sweeping, vacuum cleaning or other appropriate means.



*The workplace should be cleaned according to a schedule compatible with the tasks conducted.*

- ▶ Floor covering materials should be suitable for the work and easy to clean.
- ▶ The conditions of housekeeping can be easily assessed by visual observations. Records of maintenance work must be kept for evaluation of the performance, including information on the responsible person(s), contact and date/time of the action taken.

## 1.2\_Tidiness

Tidiness improves work performance and reduces accident. Equipment, tools, containers and small items on work benches should be kept neat and arranged in an orderly fashion. Sufficient space for storage of articles and goods is important.

*The tools and material should be kept neat and in an orderly fashion.*



## 1.3\_Accident prevention

The occurrence of accidents in a workplace could lead to damage to employees' health and in severe cases death. Precautions must be taken when dangerous substances are stored or used. Containers should be clearly labelled and the labels easily visible. Regular maintenance and checking of the equipment and devices can reduce risks. The storage and disposal of chemicals or hazardous wastes should be done carefully. Accidental spillage and spread of waste or contaminants can be avoided through proper assignment of duties, instruction, training and good housekeeping.



*Chemicals without proper labelling may be misused and cause tragedy.*



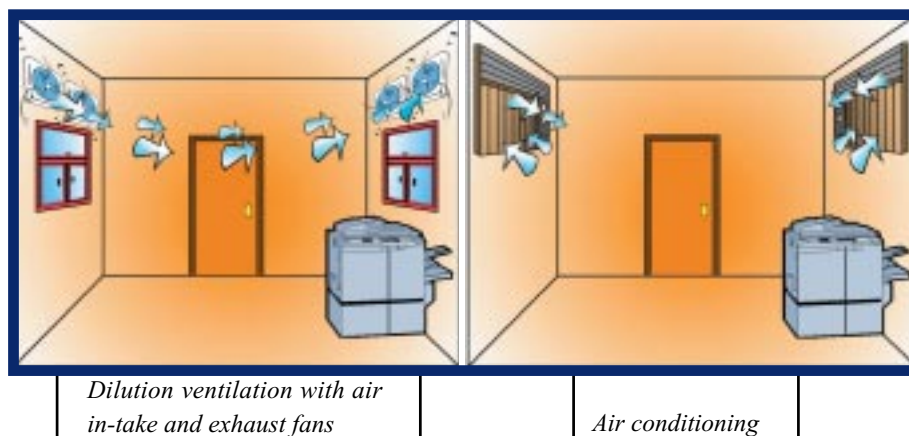
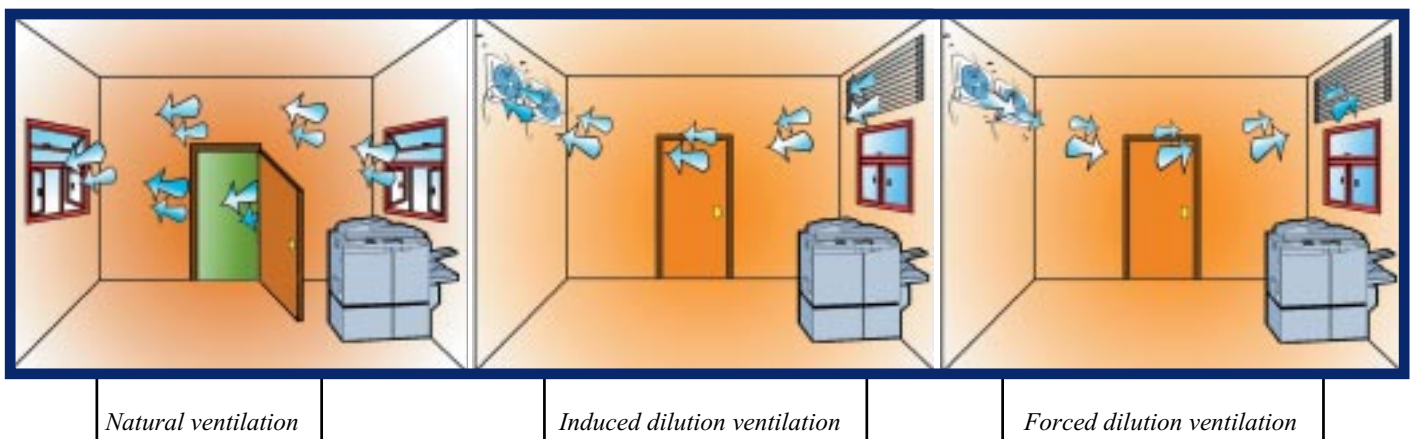
*A properly designed label provides readily available information which will prevent mishaps.*

## 2\_General ventilation

Ventilation is the process of supplying and removing air by natural or mechanical means to and from a workplace. The term "natural ventilation" covers both the uncontrolled inward air leakage through cracks, windows, door ways and vents (infiltration) as well as the air leaving the room (exfiltration) through the same routes. Infiltration and exfiltration are often affected by the weather and are beyond control.

As a consequence, it is not feasible to rely upon natural ventilation to control emissions of dust and fumes. However, modest heat loads and very lowest emissions of gases and vapours could be effectively controlled by this system.

Mechanical or forced ventilation is provided by air movers or fans in a system such as a window-mounted exhaust fan. It promotes the supply as well as the exhaust airflow.



### ***Different means of general ventilation***

## 2.1 Provision of fresh air supply

It is essential to ensure that adequate ventilation is provided to a workplace, especially in an enclosed building. General ventilation is designed to provide fresh air for breathing by the occupants, control of thermal conditions and keeping the air free from contaminants (such as tobacco smoke, body odour and other air-borne contaminants). The fresh air intake points of a ventilation system should be away from any source of contaminants. Filtration or cleaning of the incoming air before being supplied to a workplace is recommended.

In the planning stage of a building, the ventilation design should meet the minimum requirements of the Building (Ventilating Systems) Regulations. The Labour Department has also published a booklet called "Guidance Notes on Ventilation & Maintenance of Ventilation Systems" from which employers and employees can also find useful information for design of a work process and improvement of their ventilation system.

*Regardless of the type of ventilation used, sufficient fresh air must be supplied.*



The fresh air supply rate required for a workplace varies with the nature of the activities and the degree of occupancy. Recommendations of fresh air supply rate for certain activities are given in the following tables.

### Fresh air supply rate for general work activities in air-conditioned workplaces

(A) For places where the number of persons present is normally constant.

<u>Types of work activity</u>	<u>Minimum fresh air supply rate (m<sup>3</sup>/min/person)</u>	<u>Remark</u>
Open plan offices (non-smoking), classrooms in schools	0.43	The normal daily working hours or hours of stay are long e.g. 8 hours
Private offices (with moderate smoking), laboratories	0.6	
Conference rooms or offices (with heavy smoking)	1.0	
Canteens, restaurants	0.3 (based on the seating capacity and the number of employees)	On average, people may not stay in the area for a long period



(B) For places where the number of persons may vary from time to time.

<u>Types of work activity</u>	<u>Minimum fresh air supply rate</u> (m <sup>3</sup> /m <sup>2</sup> floor area/min)	<u>Remark</u>
Shops, supermarkets, department stores	0.18	Generally no smoking
Kitchen ( Restaurants)	1.2	Additional exhaust for working areas is required

**Note:** Local exhaust should be provided if harmful substances are generated.

## 2.2 Maintenance

- ▶ If a mechanical ventilation system is used, regular checks (e.g. annually) should be carried out to reveal malfunctions and prevent breakdowns.
- ▶ Visible deposit or dirt on the fans and duct work system is likely to cause health risks and should be removed.



*Regular cleaning of the filters, fans and cooling coils of a ventilation system is essential to ensure efficiency and the occupants' health.*

*Ventilation ducting should be cleaned regularly.*



## 2.3 Monitoring of the ventilation system

In a workplace without a specific source of contamination, the adequacy of ventilation can be measured indirectly with a carbon dioxide index method. As the concentration of carbon dioxide increase with human activities, background levels of other contaminants also increase. Carbon dioxide level frequently exceeding 1000 ppm (although carbon dioxide at such level is not a health concern) could be a useful indicator for review of the fresh air supply rate, distribution and the activities going on, especially when there is a complaint.

## Methodology

Carbon dioxide can be measured with either a direct-reading meter or detector tube kit. The relative occupancy, air damper setting and weather should be noted for each period of carbon dioxide measurement. The measurement should be made when concentration are expected to peak. If the occupant population is fairly stable during normal business hours, carbon dioxide levels will typically rise during the morning, fall during the lunch period, then rise again, reaching a peak in mid afternoon. In this case, sampling in the mid- to late-afternoon is recommended. It is helpful to compare measurement taken at different times of a day. Other sampling times may be necessary for different occupancy schedules. Individual measurements may be short-term .

It is advisable to take one or more readings in "control" locations to serve as baseline for comparison. Readings from outdoors and from areas in which there are no apparent IAQ problems are frequently used as controls. Outdoor samples should be taken near the outdoor air intake.

### Precautions in taking the measurement

- ▶ measured away from any source that could directly influence the reading (e.g., hold the sampling device away from exhaled breath).
- ▶ preferably measured at head height.

*The adequacy of ventilation should be monitored by checking the carbon dioxide level in the workplace.*



## 2.4 Thermal conditions

Thermal conditions for enclosed workplaces should be commensurate with the activities in the area. The factors affecting these conditions include air temperature, humidity and air movement.

- ▶ In naturally ventilated workplaces, for the best productivity and relative comfort, the optimum effective temperature (footnote) is below 27 °C . For workplaces where room temperature control is difficult and where the effective temperature is likely to significantly exceed the recommended value, heat stress problems are likely and should be assessed. When continuous strenuous work is required to be carried out in a hot environment, other improvements should also be considered, including for example, suitable clothing, activity break period, supply of drinking water etc.
- ▶ In an indoor work environment, the lower air temperature is preferably maintained at 16 °C or above.

**Footnote :** Effective temperature is not a reading on a thermometer in a particular environment. It is an index of relative comfort compiled with reference to the effects of air temperature, relative humidity and air movement on a group of tested subjects (people). The reference to 27 °C is recommended by the "American Society of Heating, Refrigeration and Air Conditioning Engineers".

- ▶ For air-conditioned workplaces, when the range of room temperature for normal activities can be maintained between 20 °C - 26 °C , and relative humidity between 40% and 70%, the conditions are usually satisfactory. It provides optimum comfort and restricts the growth of micro-organisms. The upper temperature range of 23 °C - 26 °C is preferable for summer and the lower temperature range of 20 °C - 24 °C is for winter. Supply of fresh air to an air-conditioned area is particularly important as most of the indoor air is being re-circulated through the system. Maintenance of the system is also required because it often becomes the source of contamination when not properly maintained.
- ▶ The installation of artificial ventilation should not expose employees to draughts which may cause discomfort. Similar problem may occur when the pressure among workrooms are not well balanced.



*A central air conditioning system should be well-balanced and cause no draught to the occupants, otherwise the system will be tempered, thus causing further problem.*

## 2.5\_Air quality standard for chemical contaminants

The general ventilation provided for the normal work environment should be able to keep the air free from chemical and biological impurities for protection of employees' health. The Labour Department has published a booklet called "A Reference Note on Occupational Exposure Limits for Chemical Substances in the Work Environment", which contains useful information on workplace air quality standards.

- ▶ To ensure good air quality, no visible dust, fume or mist should be found in the workplace, nor should odour be present that can cause acute discomfort and irritation to the employees. For specific sources of air-borne contaminants (e.g. from an industrial process), employers should take all reasonably practicable measures to control the air-borne contaminants within an acceptable level.

- ▶ In dangerous operations, a risk assessment programme should be scheduled to spot out if any malpractice or specific sources of air-borne contaminants occur in the workplace. Risk assessment should be carried out when there is a new process or a change in the process. If any significant health risk has been identified, employers must take immediate corrective actions or seek further advice from a competent person.
- ▶ Continuous or regular monitoring of air quality may be required if the levels of impurities cannot be kept well within or have already exceeded the recommended occupational exposure limits. Effective control measures should be considered for improvement of the work environment.



*A great variety of techniques and instrument are available for monitoring dust, mist, vapour and gas in air. A specialist may be required to perform the monitoring in some cases.*

## 2.6 Control of biological contaminants

- ▶ In practical terms, employers have a duty to undertake proper house-keeping to avoid biological contamination and mould/bacteria growth inside buildings. The proper maintenance of the air-conditioning system and fresh air supply can remove unpleasant odour and may prevent air-borne diseases. The “Code of Practice on Prevention of Legionnaires’ Disease” published by the Electrical & Mechanical Services Department gives the necessary guidelines for the employer to follow in the proper maintenance of air-conditioning systems, cooling towers and centralised hot water supply systems.

- ▶ For clinics, hospitals and health care institutions, there should be additional requirements for proper disposal of clinical wastes and adequate facilities, and proper systems for control of biological contaminants. In some situations, the employer or management should have an operating manual so that his employees can follow the instructions carefully.



*Water cooling towers must be regularly disinfected.*

## 3\_Containment and other means of engineering control

In the case of activities that cause exposure to air-borne contaminants, special control measures or facilities should be considered. Such measures would be useful in protecting employees from inhalation of air-borne impurities and in avoiding accumulation of harmful substances in the work environment.

### 3.1\_ Full containment method

This can prevent the spread of contamination and accumulation of impurities in a workplace.

*A fully enclosed glove box can be used for sand blasting or processing highly toxic substances.*



*Paint spraying should be conducted in a spraying room with independent ventilation system so as not to affect the other workers.*

### 3.2\_ Physical barriers

Hazardous operations (e.g. a printing job being done in an office) should be separated from other activities by physical barriers partially or completely to prevent the spread and accumulation of air-borne contaminants into the normal working area. Other means of control should be provided in the (printing) area for the protection of the employees.

### 3.3\_ Mechanical ventilation

To prevent accumulation of air-borne contaminants in the work area, mechanical exhaust ventilation is required to remove the impurities in air and to discharge them properly. Sufficient make-up air should be provided to facilitate the removal of contaminated air.



*Exhaust ventilation should be arranged in such a way that cross ventilation is achieved and contaminants are blown away from the workers.*

### 3.4 Local exhaust ventilation

In specially hazardous operations, a local exhaust system may be required to effectively control atmospheric contamination at its source. A local exhaust system should normally contain an enclosing hood, ducting, an air cleaner and an exhaust fan.

- ▶ To ensure effective control, the hood opening should be installed and used as close as reasonably practicable to the source of contaminants. The arrangement of positioning the hood so that it can enclose or confine the contaminant is recommended.



*A local exhaust hood should enclose the source of contamination as far as practicable.*

Local  
Exhaust  
Ventilation

*If installation of a fixed local exhaust system is not feasible, a mobile system with a suitable filter should be considered.*



## 4\_Lighting

It is essential for employees to work and move around safely in a workplace. Natural lighting is preferable but due to its unreliable nature and many other uncontrollable factors like sky brightness, seasonal variation, distance from windows and limited window area, etc., artificial lighting is often used as a supplement to daylight. Modern indoor work environment relies very heavily on artificial lighting. Artificial lighting so provided should enable employees to see the visual task with ease and improve accuracy for better performance. The appearance, colour and details of the interior can also be enhanced through appropriate lighting.

### 4.1\_Daylight

Daylight is the best and cheapest source of illumination. It can reduce energy costs but should be planned in the early stage of building design to maximize its application (Please refer also to the Building (Planning) Regulations for the minimum requirements). Making improvements in the later stage may be costly.

- ▶ The distribution of light in a workplace can be improved by using more daylight. To get more daylight, people may rearrange their work orientation or the location of machines, or increase the size of windows or have windows placed higher up to take advantage of more daylight.
- ▶ Windows and openings may be protected from direct sunlight by curtains or blinds to avoid glare and direct heat from the sun.



*The use of artificial light and natural light is complementary. Their combined use is most economical and effective. It creates a sense of openness.*



*Blinds or curtains should be used to control direct sunlight and to avoid glare.*

### 4.2\_Lighting provision

In workplaces, the artificial lighting provided should be such that there is no risk of accident to all employees (too dim), nor should it be damaging to their eyesight such as causing glare (too bright) or visual fatigue. The recommendations of illuminance for general activities are given in paragraph 4.6 below.

- ▶ When the intensity of lighting in a workplace is insufficient, the first consideration on improvement is to use light colours for walls and ceilings to increase the amount of reflected light. A white surface can have over 80% - 90% reflectivity. A pale tint for walls can have reflectivity up to 50 - 85%.
- ▶ Sufficient lighting improves employees comfort and performance. Combining the use of natural light and artificial lighting is the best mode.
- ▶ Old people need more light. For example, an employee aged 60 needs five times more light to read a printed text than a 20-year-old one.
- ▶ The time available for viewing the task affects the requirement of lighting too. The higher the speed of the task is, the higher the lighting level should be. Local lighting is recommended for precision or inspection work. Local lights that are easy to move and arrange in the desired positions are recommended.



*Task lamp should be provided to illuminate the work surface if a higher level of local lighting is required.*

### 4.3\_Glare effect

Glare effect can cause discomfort (often from reflective surfaces) and reduced visibility (often from a broad band source of white light perceived when facing a window). It reduces the ability to see and should be eliminated. A comfortable workplace should have no glare.



*Disability glare from a light fitting.*



*Disability glare from windows.*

- ▶ Glossy or shiny materials or paint for wall and surfaces should be avoided to prevent indirect glare.



- ▶ Sometimes, the desk top may reflect the light sources at the ceiling or at the front to the users. To avoid the indirect glare effect, you may have to re-arrange the position of the work station or relocate light sources or provide shields to eliminate the problem.



*Distraction reflection close to the line of sight.*

- ▶ Direct glare can be removed by avoiding bright light sources falling within the normal field of vision. Mounting local lights high enough and shading them well to hide all bulbs can improve the situation. The use of naked light bulbs or fluorescent tubes is not recommended.
- ▶ The glare effect from windows or neighbouring work stations can affect visibility. It can be prevented by using curtains, blinds, partitions or desk-top partitions.
- ▶ Lighting provision at higher positions gives better dispersion and prevents glare.
- ▶ Older people are more sensitive to glare. They often need better lighting arrangements.

## 4.4\_Contrast

Changing the view from a bright area to a dark area demands adaption of the eyes. It takes time and is often tiring if the difference (contrast) is significant. It is recommended that the contrast between the job (target) and the immediate background should be no more than 10:3, and that between the target and its surrounding environment should be no more than 10:1.

- ▶ The workplace should be lit up gently and evenly to minimize changes in brightness. Sharp shadows on the work surface are a reason for poor performance, eye strain, fatigue and sometimes accidents. Shadow zones should be eliminated by providing good distribution of lights as well as enhancing reflection from the walls and the ceiling.
- ▶ In case there is a bright light source falling within the normal field of vision, the contrast can be reduced by providing more light for the environment.



*Large difference in lighting level between adjacent area may cause visual discomfort or even affect safety in places where there is frequent movement.*

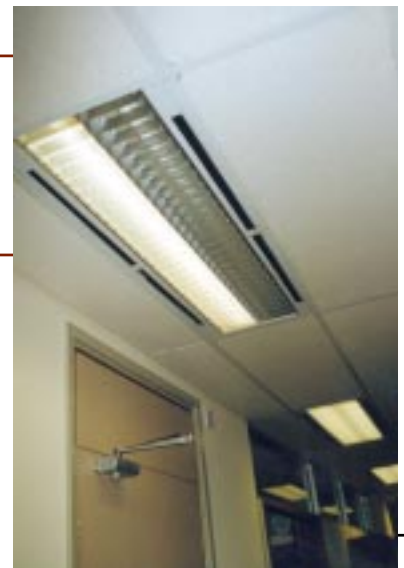


*The illumination of the target should be higher than the surrounding and falls gradually outwards. The maximum ratio of luminance should not exceed 10:3:1 (target : immediate background : surrounding).*

## 4.5 Flicker

Flickering is also a possible cause leading to eye fatigue. The effect is usually related to the lights or other mechanical means (such as the moving blades of a ceiling fan underneath a lamp). It should be eliminated.

- ▶ All types of lights could induce the flickering effect due to the use of alternating current. The effect can be suppressed by replacing worn-out fluorescent lamps. If necessary, use filament bulbs instead.
- ▶ Eliminate all possible flickers.



*Worn-out fluorescent tube is a common source of flicker.*

Flicker

## 4.6 Recommendations of illuminance for general activities

The following table gives examples of optimum levels of lighting for a wide range of activities/areas.

Item	Task position or area	Optimum average illumination in lux	Notes
<b>1_OFFICES</b>			
	General offices	500	
	Computer work stations	500	Local lighting may be required for reading a document
	Drawing work stations	750	Local lighting is appropriate
	Other areas, e.g. file storage and reception, telephone operators	300	
<b>2_BANKS</b>			
	Counter, office area	500	
	Public area	300	
<b>3_SHOPS &amp; SUPERMARKETS</b>			
	General	500	Illuminating the vertical surfaces of the display is required
	Counter	500	
<b>4_LIBRARIES</b>			
	General	300	
	Counter, book repair, sorting	500	
	Bookshelves	150	Illuminating the vertical faces at the bottom of bookstack is required
	Reading tables	300	Local lighting may be appropriate
<b>5_SCHOOLS</b>			
	Classrooms , laboratories	500	
	Artrooms needlework rooms	500	Supplementary local lighting is desirable
	Music rooms, sports halls	300	
	Workshops	300	Supplemeantary local lighting is desirable

Item	Task position or area	Optimum average illumination in lux	Notes
<b>6_ MANUFACTURING AND PROCESSING AREAS</b>			
	Major control rooms	500	
	Handling of hazardous substances	500	Special luminaires are desirable if corrosive or explosive atmosphere may be present
	Handling of substances which are not hazardous	200	
	Automatic processes	200	
	Simple assembly, rough bench, machine and inspection work; e.g. heavy machinery assembly	300	
	Medium assembly, bench, machine and inspection work; e.g. vehicle body assembly	500	Local lighting may be appropriate
	Assembly of precision components, fine bench, machine and inspection work; e.g. insertion of electronic components, inspection of PCBs	1000	Local lighting is desirable. Care is necessary to control specular reflections
	Assembly of high precision parts, very fine inspection work; e.g. clothing inspection, watch making	1500	Local lighting is desirable. Care is necessary to control specular reflections
<b>7_ DISTRIBUTION AND STORAGE</b>			
	Loading bays	150	
	Unpacking, sorting	200	
	Large item storage	100	Supplementary local lighting may be necessary if identification requires perception of detail
	Small item rack storage	300	Supplementary local lighting may be necessary if identification is visually difficult
	Issue counter, storeman's desks	500	Local lighting may be appropriate
	Packing and despatch	300	

Item	Task position or area	Optimum average illumination in lux	Notes
<b>8_CATERING SERVICES</b>			
	Vegetable preparation, washing up areas, food distribution	300	
	Food preparation and cooking	500	
	Food stores and cellars	150	
<b>9_GENERAL BUILDING AREAS</b>			
	Entrances, lobbies, waiting rooms, gatehouses	200	Care should be taken to avoid a sudden change of illuminance between inside and outside
	Enquiry desks	500	Localised lighting may be appropriate
	Corridors, passageways, stairs, lifts	100	
	Boiler rooms, mechanical plant rooms, electrical power supply and distribution rooms	200	
	Covered car parks	50	
	Outdoor car parks	10	
	Emergency equipment locations	50	
	Emergency lighting	10	Operate automatically when normal power supply fails
<b>10_CONSTRUCTION SITE</b>			
	Site clearance, excavation and soil work	200	Portable local lighting may be needed

Note: Minimum Levels of Lighting—

- (a) For Item 1–8, the measured average levels of lighting at a task position or in an area should not be less than 1/3 of the optimum average illumination.
- (b) For Item 9–10, the measured average levels of lighting at a task position or in an area should not be less than 1/10 of the optimum average illumination.

Reference: 1. Chartered Institution of Building Services Engineers (CIBSE), Code for Interior Lighting, London, 1994.  
 2. Canada Occupational Health and Safety Regulations, Part VI.

## 4.7 Measurement of average levels of lighting

The method relies upon a grid of measuring points over the whole area under consideration, i.e. the area is divided into a number of equal squares. The illuminance at the centre of each of the squares is measured at desk top height (typically 0.85 m above floor level) and an average value of illuminance is calculated.

*Lighting levels in a workplace can be measured with a light meter.*



## 4.8 Maintenance programme

Lighting conditions in workplaces should be inspected regularly with a planned walk-through survey to find out if there is any fault and/or malfunction of equipment. Worn-out lighting devices should be replaced. A maintenance programme should include cleaning of lamps, fixtures and reflectors, as well as windows, ceilings, walls and other interior surfaces. The efficiency of the lights can be improved by more than 20% after cleaning.



*Scheduled replacement of all lamps at the end of the expected service life is recommended. The overall lighting level can be kept more constant.*

## 5\_Floors and drainage

Some activities in a workplace are liable to make the floors or wall surfaces wet. An effective drainage system should be provided so that water can be removed and drained quickly from the floor. This prevents the floor from causing slips and accidents, and reduces the flourishing growth of mould and other micro-organisms.

### 5.1\_Floor condition

The floor should be maintained clean, stable and non-slippery. For workplaces where wetting of the floor is unavoidable, the tiles should be made of non-slippery material. Alternatively, a foot platform may be provided for employees to stay away from the wet surface. Moreover, the drainage should be well maintained and under no circumstances should dirt be allowed to accumulate underneath the platform or the corners of the shop floor.



*The floor of a workplace should always be maintained clean, stable and non-slippery.*



*A raising platform should be provided where wetting of the floor is unavoidable, e.g. in an electroplating factory.*

### 5.2\_Inspection

Visual inspection of workplaces to note down the conditions and spot out malpractice would be required. The records of malpractice must be followed up to ensure remedial action has been taken.

## 6\_Welfare facilities

### 6.1\_Lavatories and washing facilities

Suitable and sufficient sanitary conveniences and wash basins should be provided at readily accessible places. They are supposed to be adjacent to but separate from other sanitary facilities such as changing rooms and shower facilities.

*Sufficient sanitary facilities should be provided for uses by employees in a workplace. They should always be maintained clean and hygienic.*



- ▶ Sanitary facilities should be provided for men and women separately.
- ▶ The facilities must be maintained tidy, clean and hygienic. Daily cleaning is recommended.
- ▶ The number of water closets and related facilities for employees should follow the recommendations in the Building (Standards of Sanitary Fittings, Plumbing, Drainage Works and Latrines) Regulations under Hong Kong Laws, Chapter 123.
- ▶ The conditions of cleanliness of the sanitary facilities should be inspected regularly (e.g. weekly) by an appointed personnel. Breakdowns of the units, blockage of the pipes or leakage should be reported immediately for repair. The records should be counter-checked and signed by the management or a responsible person.

### 6.2\_Changing rooms and shower facilities

When the activities in the workplace are likely to produce bodily contamination, an adequate, suitable and secure place should be provided for employees to store their own clothing and work clothing.

- ▶ Changing rooms should be equipped with lockers. To maintain good personal hygiene, showers with hot and cold or warm water supply are required and should be readily accessible from workrooms.



- ▶ When a highly dangerous operation is carried out in a workplace, an emergency shower or eye-washers should be provided at suitable locations. All the facilities should be properly maintained and be kept sanitary for use in emergency situations.



*Dirty work clothing should not be mixed with personal clothing in a changing room. They should be properly bagged for laundry.*



*Emergency showers and eye washers should be provided in areas where accidental contact of the body with dangerous chemicals is possible.*

### 6.3\_ Drinking water supply

Employers have a duty to provide an adequate supply of drinking water. Good drinking facilities and rest places can do much to prevent fatigue and to maintain employees' health. It is especially important in a hot environment.

- ▶ The supply of drinking water facilities or wholesome drinking water such as tap water or drinking fountains should be easy to access. However, such facilities should not be near dangerous machines nor contamination sources, nor in washrooms or toilets.
- ▶ Bottled drinking water or other beverages can be alternatives to drinking water facilities. They are hygienic and require the least maintenance.
- ▶ In a hot environment or summer, it is important to provide cool water. If there is no water cooling device, the water containers can be placed in a cool location of the workplace.



*Supply of drinking water facilities at convenient location is an essential provision in a workplace.*

## 7\_Further information

For further information about the subject or for assistance, please contact

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Information on the services offered by the Occupational Safety and Health Council can be obtained through hotline 2739 9000.

The logo consists of the words "HYGIENE" and "PRACTICE" stacked vertically in a white, pixelated, monospace font. The text is centered within a solid orange rectangular background.

This guide is the Labour Department's contribution towards safety and health - a shared responsibility - and the Departments endeavour to serve the community.