



OFFICE SAFETY

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PREFACE

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CONTENTS

CONTENTS	3
INTRODUCTION	7
1.1 GENERAL PHILOSOPHY/POLICY	8
1.2 ROLES AND RESPONSIBILITIES	8
1.3 SAFETY COMMITTEE	8
2. ORGANISATION	9
2.1 SPECIALIST SERVICES AND SUPPORT	9
2.2 COMMUNICATION	9
2.2.1 Campaigns and promotions	9
2.2.2 Notice boards	9
2.2.3 Other means of communication	10
2.3 SAFETY TRAINING	10
2.3.1 Safety induction training	10
2.3.2 Development and refresher training	10
2.3.3 Specialist training	10
2.3.4 Management's responsibilities	11
2.4 SAFETY INSPECTIONS	11
2.5 PERSONAL PROTECTIVE EQUIPMENT	11
3.1 BUILDING DESIGN AND CONSTRUCTION	12
3.2 LIGHTING	12
3.2.1 General	12
3.2.2 Recommended lighting levels	12
3.2.3 Natural lighting	13
3.2.4 Artificial lighting	13
3.2.5 Colour schemes	13
3.3 NOISE	14
3.4 HEATING, VENTILATION AND AIR CONDITIONING	14
3.4.1 Temperature levels	14
3.4.2 Ventilation and air conditioning systems	14
3.4.3 Humidity	15
3.4.4 Contaminated air	15
3.4.5 Smoking	15
3.4.6 Ozone and photocopiers	15
3.5 OFFICE AREAS	16
3.5.1 Work areas	16
3.5.2 Floors	16
3.5.3 Stairways	16
3.5.4 Passageways	16
3.5.5 Roofs	17
3.5.6 Partition walls	17
3.5.7 Lifts	17
3.5.8 Escalators	17
3.5.9 Static electricity	18
3.5.10 Safety signs	18
3.5.11 Ionizing radiation	18
3.5.12 Asbestos	18

3.5.13	Housekeeping	19
3.5.14	Basements.....	19
4.	OFFICE EQUIPMENT AND MATERIALS	19
4.1	ELECTRICAL EQUIPMENT	19
4.1.1	Safety systems	19
4.1.2	Operating precautions	20
4.1.3	Visual display units (VDUs) – see also PTS 60.1503.01 Working with VDU 20	
4.2	FURNITURE	21
4.2.1	Chairs	21
4.2.2	Filing cabinets	21
4.2.3	Shelves and storage cabinets	22
4.2.4	Stools and stepladders.....	22
4.3	MATERIALS STORAGE	22
4.3.1	Pointed and sharp objects.....	22
4.3.2	Chemicals and flammable materials	22
4.3.3	Stationery	22
4.3.4	Waste bins	23
5.	OFFICE SERVICES AND AMENITIES	23
5.1	DOMESTIC SERVICES	23
5.1.1	Internal	23
5.1.2	External	23
5.1.3	Waste disposal	23
5.2	CATERING	24
5.2.1	Catering areas.....	24
5.2.2	Catering staff.....	26
5.2.3	Catering equipment.....	26
5.3	GENERAL HYGIENE.....	27
5.3.1	Toilets and washrooms.....	27
5.3.2	Cloakrooms	28
5.4	LIBRARIES	28
5.5	LABORATORIES.....	28
5.6	REPROGRAPHICS	28
5.7	TELEX.....	28
5.8	CASH OFFICES	28
5.9	ROADS, TRANSPORT AND PARKING FACILITIES.....	29
5.9.1	Parking facilities.....	29
5.9.2	Roadways	29
5.9.3	Company vehicles.....	29
5.9.4	Road transport	29
5.10	SECURITY	29
5.11	GARDENING	30
5.11.1	General.....	30
5.11.2	Verandas and roof gardens.....	30
5.12	VEHICLE MAINTENANCE AND GARAGES	30
5.13	BUILDING MAINTENANCE	31
5.13.1	General/ procedures and instructions.....	31
5.13.2	Workshops and stores	31
5.13.3	Work permits.....	31

5.14	EXTERNAL STORAGE AREAS	31
5.14.1	Storage of flammable liquids	32
6.	FIRE PRECAUTIONS AND EMERGENCY PROCEDURES	33
6.1	FIRE CERTIFICATES	33
6.2	ESCAPE ROUTES	33
6.2.1	Expert advice	33
6.2.2	Responsibility	35
7.	FIRST AID AND OCCUPATIONAL HEALTH ARRANGEMENTS	39
7.1	GENERAL	39
7.2	FIRST AID AND MEDICAL STAFF	39
7.3	FIRST AID EQUIPMENT	41
7.3.1	First aid boxes	41
8.	CONTRACTORS	42
9.	APPENDICES	43
9.1	OFFICE SAFETY INSPECTION CHECKLIST	43

FOREWORD

The purpose of this Guide is to provide PETRONAS OPUs with a comprehensive set of principles upon which policies, procedures and practices may be based for the promotion of safety and health in their offices. These recommendations seek to make available knowledge and practical experience acquired by PETRONAS and the industry and this document is produced to assist the management of PETRONAS OPUs in the development, implementation and maintenance of high standards of safety in their own offices.

INTRODUCTION

It is a common misconception that offices are safe places and that any accidents which occur are of a minor nature and not worthy of serious attention. Each year thousands of office workers are involved in serious work-related accidents which result in pain, injury, lost time, financial burdens and the disruption of work schedules and social life.

Office accidents follow a similar pattern to those in other spheres of industry, and they result from the same basic causes - unsafe acts and conditions. The most prolific accidents are falls, those occurring on the same level being almost as numerous as those from one level to another. In fact, almost half of all office injuries are the result of falls. Next comes the lifting and handling of goods, materials and equipment, followed by stepping on and striking against objects, falling items, machinery, transport, the use of hand tools, fire and electricity.

Analysis of Shell accident reports shows that more than 80% of accidents causing injury are due to human behavior. Particular attention needs to be given to promoting a positive attitude towards safety matters, and demonstrating the importance of personal behavior in preventing accidents.

Everyone, from the most senior manager to the newest employee, has a part to play in creating safe working conditions. Good management will ensure personnel have a positive attitude towards safety in the office, and that unsafe acts and conditions, the root cause of accidents, are reduced and ultimately eliminated.

The influence of increased attention to safety in offices is not limited to the office alone, but will permeate into advices and directions between office centers and other work sites.

1. MANAGEMENT OF SAFETY

1.1 GENERAL PHILOSOPHY/POLICY

An effective safety policy will be concise, easily understood and available to everybody. Each Company should develop its own safety policy to meet its own particular requirements, based on the following philosophy:

- Acceptance of the principle that all injuries can and should be prevented.
- Management at all levels is responsible for preventing accidents.
- Safety should have equal status along with other primary business objectives.
- Acceptance of the need to provide safe facilities and safe procedures.
- All equipment which may cause injury should be safeguarded.
- It is necessary to train all employees to work safely and to understand that to do so is to their own advantage as well as the Company's.
- Accident prevention is good business. A safe operation is usually an efficient operation.

NOTE: Further details on PETRONAS Safety Policies are available in PTS 60.0101 HSE Management System Manual

1.2 ROLES AND RESPONSIBILITIES

Good office management requires a clear definition of roles and responsibilities of the various levels of staff in relation to health and safety, especially where the office consists of staff in more than one functional activity. In addition, contract and temporary staff should be informed of the Company Safety Policy and local health and safety arrangements. Each Company should ensure that any contract or temporary staffs are fully trained and capable of carrying out their particular tasks safely and efficiently. Contract and temporary staff should also be made aware of their individual responsibilities to maintain safe working conditions while employed by PETRONAS. Visitors should be made aware of emergency procedures.

1.3 SAFETY COMMITTEE

A Safety & Health Committee covering the office should be established, it should be both an advisory and consultative body and should liaise closely with management to ensure safety and health at work and promote the effective co-operation of employees at all levels. It should include members of staff and representatives of the medical and safety departments or a focal point. Members of the Safety & Health or HSE Committee should be provided with sufficient training and other facilities as are necessary to meet their responsibilities.

It should review arrangements for safety, make recommendations to management and assist in communications concerning safety measures. These should include review of audits and accident reports and may involve participating in investigations and inspections.

In smaller Companies office safety aspects may be covered by one overall committee.

NOTE: A Safety & Health Committee does not in any way relieve line managements of their responsibilities for safety and

health.

2. ORGANISATION

To give effect to the Company Policy, the organization and arrangements should be formally defined and communicated to all staff. The practices shown below illustrate the main features that should be covered.

2.1 SPECIALIST SERVICES AND SUPPORT

A focal point should be established for coordinating specialist services and support on safety, occupational health and hygiene, toxicology, fire prevention and emergency procedures in the office. This may be the duty of the Office or Administration Manager or Safety Advisor. The focal point should maintain contact with specialists, and through them provide to line management information on outside developments, including legislation, codes of practice and other technical or guidance material. He should prepare and collate reports on health and safety programs and performance, and give recommendations appropriate in the light of developments or reports.

2.2 COMMUNICATION

All staff should be issued with a copy of the Company Policy and every effort should be made to ensure that they are aware of and understand its meaning. The communication and implementation of Company policy in relation to health and safety at work in offices may take a variety of forms:

2.2.1 Campaigns and promotions

Office safety campaigns and promotions may be organized to promote:

- Awareness of the potential hazards which can occur in offices.
- The active participation of all personnel in the identification and removal of these hazards.

A specialist Safety Advisor or member of staff appointed as a focal point should coordinate any such promotions which should include safety awareness presentations.

2.2.2 Notice boards

Dedicated Safety Notice Boards or a dedicated section on a general board should be situated in positions which provide optimum exposure to personnel. Messages presented on the notice board should be eye-catching, short and to the point. The nature of the message should be immediately obvious. Items posted on the Safety Notice Board may include:

- The Safety Policy
- Minutes and agendas of Safety & Health Committee meetings

- Safety posters
- Safety performance analyses and should regularly be updated.

2.2.3 Other means of communication

These can include newsletters, booklets and brochures, stickers and other promotional material e.g. giveaways.

2.3 SAFETY TRAINING

Job safety training is an integral part of the line management function. Where necessary a member of staff appointed as focal point should be responsible for advising on all aspects of training relating to health and safety at work.

2.3.1 Safety induction training

New and transferred members of staff, temporary staff and contractors should be given Safety Induction Training as soon as practicable after joining.

This training should include:

The Company Safety Policy
Organization and Responsibilities
Emergency procedures

This training should include (cont...) Hazard awareness - electrical

- physical
- chemical
- ergonomic

Hazard Reporting

Accident Reporting

First Aid

Storage of materials

Good housekeeping

Company Rules and Procedures

2.3.2 Development and refresher training

Development and refresher training should be provided when necessary to ensure the safety and health of all personnel in carrying out their jobs.

2.3.3 Specialist training

Specialist training should be provided in addition to induction, development and refresher training. Training should be an ongoing function of job development and safety should be an integral part of it. Examples are first aid, fire fighting, correct handling techniques for lifting and carrying large or heavy goods.

Poor lifting and carrying techniques account for a significant percentage of accidents in offices. Training in such handling techniques is an essential

requirement where an individual's job includes a large amount of lifting and carrying, e.g. a store man.

Other areas requiring specialist training may include: accident investigation techniques, hygiene requirements for kitchen staff and methods of auditing. Specialist training should be provided for staff appointed as safety focal points.

Specialist training may also be required for office personnel required to go on field trips e.g. offshore.

2.3.4 Management's responsibilities

It is essential that training programs is structured to cover both the behavioral and the technical needs of the job. Management should plan and monitor the progress of individuals through established training programs. These programs should ensure that individuals are trained in awareness of correct safety procedures as an integral part of developing their ability to do their job.

2.4 SAFETY INSPECTIONS

It is the responsibility of managements to monitor their respective areas and initiate inspections. It is recommended that inspections should be carried out at regular intervals, preferably on a quarterly basis, with remedial actions being reviewed by line management and discussed at Safety Committee meetings. Office safety inspections may take the form of a Safety Check List covering the key points required to reduce hazards, and assist in maintaining a safe working environment. The Check List should be used by both management and employees. The areas covered in office safety inspection may include: accident statistics, safety procedures, safe working practices, equipment, premises, roles and responsibilities, statutory requirements first aid boxes, first aides training, Company Policy and contractors. An example of an Office Safety Inspection Check List is shown in Appendix 1.

NOTE: Further points relating to Managements' involvement and responsibilities regarding inspection/auditing are included in PTS 60.2003 Unsafe Act Auditing.

2.5 PERSONAL PROTECTIVE EQUIPMENT

Personal Protective Equipment (PPE) should be considered for staff working in an office complex where an appropriate risk exists. Examples where provision of protective equipment may be required are, furniture removers (safety shoes and gloves), maintenance staff (safety shoes, overalls, gloves, ear protectors, goggles and safety helmets), catering staff (safety shoes, overalls, aprons, head coverings, valid vaccination certificates, basic food hygiene course) and printing staff (gloves and overalls).

NOTE: Guidance on the selection and use of PPE is included in PTS 2114 Personal Protective Equipment.

3. **OFFICE ENVIRONMENT**

To provide a positive awareness of health and safety in the office it is important for staff to work in a pleasant environment and have good working conditions. Poor or substandard working conditions, building structure or equipment can not only create hazards, but also a negative attitude towards safety, which will eventually lead to accidents. If staffs are happy with their working conditions they are more likely to take positive action to maintain a safe working environment.

3.1 **BUILDING DESIGN AND CONSTRUCTION**

Office buildings must be of sound construction and designed to accommodate comfortably the number of staff and bear the weight of equipment. Prior to equipment being installed checks should be made on the designed floor loadings of a particular office area. Buildings must be provided with adequate means of escape in case of emergencies requiring the rapid evacuation of staff. Sufficient lighting, heating and ventilation, fire protection and toilet facilities must be available.

Technical Building Documentation including routing of services, statutory certificates, plant changes etc. should be maintained in a readily available form, also if necessary for use in an emergency.

3.2 **LIGHTING**

3.2.1 **General**

Good lighting is important in providing satisfactory working conditions for all personnel. Emergency lighting for escape routes should be not less than 0.2 lux at floor level. Lighting levels should be checked periodically using a light meter.

Light fixtures should be cleaned regularly since dust and dirt reduces the amount of light transmitted.

3.2.2 **Recommended lighting levels**

The following table shows recommended lighting levels for the various areas of a typical office complex:

AREA	LEVELS (LUX) ON THE WORKING PLANE
Cafeteria and Dining Areas	200
Car Park	50
Cash Offices	500
Catering Preparation Area	500
Computer Rooms	500 (at work surface)
Conference Rooms	500 (at table)
Drawing Offices	750 (at table)

Escalators	150
First Aid Treatment Rooms	500
Garage (working area)	500
Libraries	300 - 500
Lifts	100
Normal Offices	500 (at desk)
Passageways	200
Plant Rooms	200
Print Rooms	500
Reception	150 - 500
Recreation Rooms/Lounges	300
Stairs	150
Store Rooms	200
Toilets	300
Works hops	500

3.2.3 **Natural lighting**

Every office should ideally have some natural lighting, a desirable proportion of window space is about 15% of the total wall area.

3.2.4 **Artificial lighting**

Artificial lighting should be positioned to give maximum illumination while keeping the level of glare to a minimum. Light fittings must be easily accessible and regularly maintained. Artificial lighting in relation to visual display units is discussed in section 4.2.

Working surfaces should preferably be non-reflective.

3.2.5 **Colour schemes**

The amount of illumination and/or glare is affected by the colour and texture of the finish on ceilings, walls and working surfaces. A white ceiling is particularly beneficial for reflecting light around a room, but white walls may cause excessive glare when brightly lit even, with matt paints. Colour schemes should be warm and mild, with graded tones which are easy on the eye.

The finish of furniture and fittings should be selected to minimize glare.

3.3 NOISE

Excessive noise can interfere with speech communication, mental concentration and personal comfort and can cause a decrease in efficiency in an office. An example is distraction caused by the ringing of telephone bells in a large open plan office. The following table gives suggested criteria for noise limits in various types of working environment:

AREA DESCRIPTION	SUGGESTED NOISE LIMIT
Areas in workshops and machinery buildings where communication is required	70 dB(A)
Workshop offices, plant offices and plant control rooms	60 dB(A)
Other offices	50 dB(A)
Conference rooms	45 dB(A)

3.4 HEATING, VENTILATION AND AIR CONDITIONING

3.4.1 Temperature levels

The recommended temperature levels for offices fitted with air conditioning, is 24–26 degrees C

A thermometer should always be available to monitor the ambient temperature in offices.

3.4.2 Ventilation and air conditioning systems

Ventilation refers to the movement of the air and rate of fresh air input. Ventilation must be adequate. For each person a minimum rate of 10 liters fresh air per second per person for general office space or 10 liters fresh air per second for every 10 square meters of floor space is recommended.

The recommended number of air changes per hour (ACH) in various areas are as follows:

	AREA	ACH
Offices		4 - 6
Kitchens		20 - 40
Toilets		3 - 10
Enclosed Car Parking Areas		4 - 10

3.4.3 **Humidity**

Ventilation and air conditioning systems should also ensure a relative humidity of 40 - 60%.

Periodic checks should be made of ventilation and air-conditioning systems for organisms which can cause infectious diseases e.g. Legionnaires Disease or Humidifier Fever and precautions should be taken against these (see 9.3).

3.4.4 **Contaminated air**

Provision should be made in ventilation systems for the removal of unwanted fumes, gases, dusts, bacteria, viruses, mould spores generated or used in the building. Consideration should be given to the installation of alarm or shutdown systems if there is a possibility of ingress of hazardous or flammable gases from a nearby source. The air conditioning system intake should be located away from any exhaust system. Air conditioning unit that does not provide adequate amounts of fresh air can cause high levels of carbon dioxide. Stale air due to poor ventilation and excessive heat build-up or humidity can also contribute to air contamination. Appropriate control measures for the reduction of air contamination include:

- Effective air filtration
- Ensuring that adequate amounts of fresh air enter the building.
- Maintenance of air-conditioning units including regular cleaning.
- Preventing the obstruction of vent.
- Locating equipment using solvents in non-air conditioned area with substantial air-movement and/or installing local exhaust ventilation.

Automatic fire dampers should be installed in ventilation duct work (see 6.5.3).

3.4.5 **Smoking.**

Environmental tobacco is an indoor contaminant and there is general recognition that non-smokers may suffer adverse health effects through inhaling tobacco smoke. A non-smoking policy is in place for all officers and workplaces, thus fulfilling its legal obligations of providing a safe and healthy work environment.

3.4.6 **Ozone and photocopiers**

Photocopiers and laser printers produce ozone gas during operation. Concentration of ozone should not exceed 0.1ppm. A concentration above this level can cause eye and upper respiratory tract irritation, headache and temporary loss of ability to smell. Modern photocopiers and laser printers are fitted with an ozone filter and do not present any hazard to health, provided they are properly maintained. Photocopiers should not be placed on or close proximity to the personal workstation because of discomfort from heat, light, and noise generated during the photocopying process. Always keep the cover down when photocopying to reduce glare which can irritate the eyes. Dust from the toners (containing carbon black) should be less than 3.5 mg per cubic meter of air. Toner dust if breathed in could cause irritate the