

UNIVERSITY OF TASMANIA

GUIDELINES FOR THE SAFE USE OF OFFICE COPYING MACHINES

OVERVIEW

The University of Tasmania is committed to continuously improving the management and standards of Occupational Health and Safety. This commitment includes the health and well being of employees whilst using office copying machines.

DEFINITIONS

Accountable Person:

An individual, who assumes responsibility for the health or welfare of any other person in a workplace by providing instruction, direction, assistance, advice or service, is deemed an accountable person in accordance with the *Workplace Health and Safety Regulations 1998*. All management and supervisory staff (which includes those with responsibility for students) are therefore considered “accountable persons”.

Employee:

For the purposes of these Guidelines, employee refers to any staff member, student, contractor or visitor.

Office Copying Machines:

Describes equipment such as photocopiers, laser printers, facsimile machines, diazo printers, spirit duplicators and Microfiche and Microfilm readers that have an inbuilt photocopying facility.

Responsible Officer:

Deans, Heads of Division, Heads of School and Administrative Sections have been designated as Responsible Officers under the *Workplace Health and Safety Act 1995*.

RESPONSIBILITIES

Accountable Persons:

Ensure these guidelines are implemented within their area of responsibility. Provide information and training to employees regarding the safe use of office copying machines.

Employees:

To adhere to these guidelines and to undertake any training sessions organised in accordance with these guidelines.

Responsible Officers:

Provide suitable facilities and resources to ensure the effective implementation of these guidelines.

BACKGROUND

Generally, copying machines can be operated without any detrimental health effects by following some basic principles related to using copying facilities. However, individuals may experience discomfort when using copying machines if machines are poorly maintained, poorly sited or used by an individual for long periods.

These guidelines outline some of the hazards associated with using copying machines and some principles which, if followed, should minimise exposure to these hazards.

HAZARDS ASSOCIATED WITH OFFICE COPYING MACHINES

Ozone

Electrostatic photocopiers produce small amounts of ozone which, if present in sufficient quantities, may irritate the eyes, lungs, throat and nasal passages. The majority of ozone is produced during the changing of the drum and paper. Under normal circumstances the concentration of ozone around photocopiers is not sufficient to cause symptoms, as ozone is readily converted back to oxygen.

Selenium and Cadmium

The photoconductive material in photocopiers is usually selenium, however, cadmium, sulphide, zinc oxide and organic polymers are also used. Small amounts of these materials can become airborne and can irritate the skin, throat and nasal passage.

Toner Materials

Toner dust may irritate the respiratory tract and result in coughing or sneezing. Toners manufactured today have extremely low levels of impurities and therefore any potential hazards associated with toner materials are negligible.

Solvents

Solvents such as ammonia, methylated spirits, isodecane, cyclohexane and formaldehyde are used in wet process copiers. Low concentrations of these solvents may be detected by the presence of an odour. Higher concentrations can result in headaches and poor concentration.

Heat

Burns can occur from contact with hot components of copying machines when clearing paper misfeeds or replacing toner cartridges. Also, if using photocopiers for prolonged periods of time heat generated from general machine usage can become a problem.

Light

Fluorescent, metal halide or quartz exposure lamps are most commonly used in photocopying machines. Eye damage has not been shown to be caused by light emitted from photocopiers. Ultraviolet light does not pass through the document glass. Discomfort from the intensity of the light may be avoided by closing the document cover or using the automatic document feeder (if the model of photocopier being utilised has this facility).

General Body Discomfort

Discomfort in different areas of the body may arise from continuous photocopying, collating copies and attending to equipment. Repetitive and fixed postures may lead to muscular fatigue.

PROCEDURE FOR PREVENTION OF HAZARDS

Most of the hazards outlined above can be prevented by following some basic principles:

Selection of Copying Equipment

When selecting a photocopier for purchase, take into account the following factors:

- Buy a photocopier only as large as is needed. For example, if the photocopier only needs to service two people a desk top model may be sufficient. However, if the machine will be utilised by many employees a larger model may be required.
- Select copiers with automatic shut down devices on waste toner compartments. This will reduce dust emissions.
- Select machines of appropriate height so as to avoid sustained and repetitive postures. If the machine selected is not a "stand alone" model ensure that desk top models are placed at an appropriate height for users.

- Select machines with automatic document feeders, sorting and automatic stapling facilities. This reduces the need for the operator to bend and twist to remove copied documents.

Location of Copying Equipment

All copying equipment should be located in a well ventilated area. A well ventilated area is an area with good natural ventilation such as open windows and open doors to provide cross ventilation.

If natural ventilation is not available due to the location of the room, mechanical ventilation is necessary and should conform to AS 1668 - The Use of Mechanical Ventilation and Air Conditioning in Buildings.

Copying machines should be situated away from occupied work spaces to reduce the noise associated with these machines and should be situated so as to allow for adequate airflow around the machine.

The following diagram illustrates the principles to adopt in order to maintain a healthy working environment where office copying equipment is located.

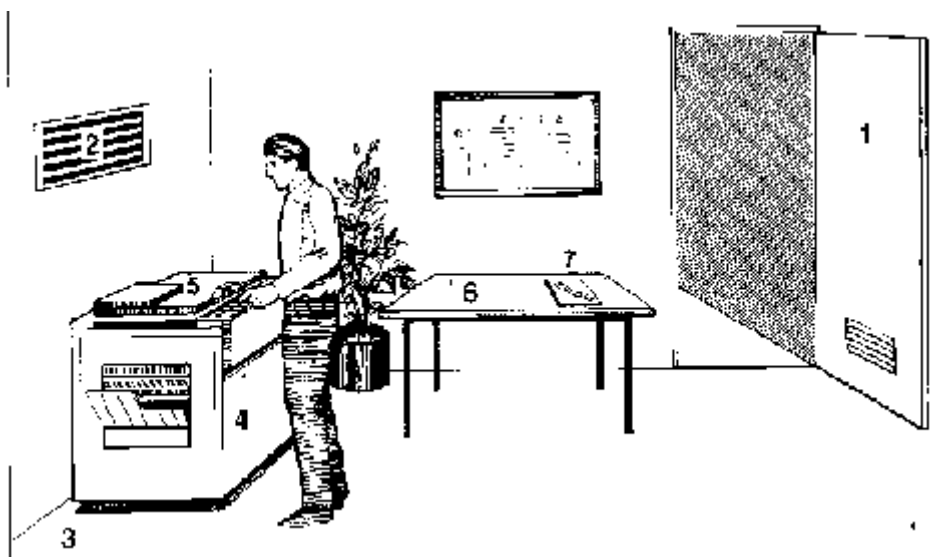


Diagram Key:

- 1 = Adequately ventilated room;
- 2 = Mechanical ventilation if necessary;
- 3 = Adequate space around copier;
- 4 = Regular maintenance of equipment;
- 5 = Comfortable working height for operator;
- 6 = Collating table at comfortable height;
- 7 = Material Safety Data Sheets available for use with chemicals.

Maintenance of Equipment

Photocopiers should be maintained by a trained technical service operator.

Personal Protective Equipment

Where necessary, personal protective equipment should be worn. For example, rubber gloves should be worn when cleaning up or disposing of spilt fluids or spent toner cartridges. If using chemicals, Material Safety Data Sheets (MSDS) are required. Advice on accessing University's MSDS database (Infosafe) can be obtained from the OH&S Unit.

Other Equipment

Where necessary, a collating table, at a comfortable working height, should be provided when using photocopier machines to reduce the risk of musculoskeletal discomfort.

Training in Equipment Use

Where possible, persons using office copying equipment should be competently trained in the equipment's use and this training should be provided by the copier manufacturer/distributor. The competent person should, wherever practicable, train other employees who also use the copying machine.

REFERENCES

The following documents have been used in the development of the University of Tasmania's Guidelines for the Safe Use of Office Copying Machines

- Worksafe Australia Guide to Office Copying Machines 1989.
- AS 1668 - The Use of Mechanical Ventilation and Air Conditioning in Buildings.

FURTHER INFORMATION

Further information on the use of copying machines in the workplace can be obtained from the Occupational Health & Safety Unit on 6226 7535.

For review by OH&S Committee: 14 September 2000.

Disclaimer

These Guidelines were designed for use within the University of Tasmania. The University makes no guarantee and assumes no responsibility as to their absolute correctness for all circumstances or for their adaptation outside the University of Tasmania environment.