Ergonomics

May 2013

Please Note – the guidance provided in this Code of Practice pertains only to the Estates Facilities Group and its operations. For Imperial College Health & Safety policies and Codes of Practice go to: http://www.imperial.ac.uk/safety/.

INTRODUCTION

This Code of Practice sets down the standards for the management of ergonomics, including, ventilation, workstations, lighting, cleaning and workplace. It is intended to assist in meeting the requirements of current legislation and sets out procedures on how to achieve safe environments for staff, contractors and visitors.

Over and above the general duty of care owed by the College to its staff, students and others under the Health and Safety at Work etc. Act 1974, all work relating to ergonomics is legislated by the Workplace (Health, Safety and Welfare) Regulations 1992 and The Health and Safety (Display Screen Equipment) Regulations as amended by the Health & Safety (Miscellaneous Amendments) Regulations 2002 apply. Further information can be found in the College’s general guidance for those using computer equipment.

This Code of Practice provides the following:

- A definition and the scope of the applicable Regulations
- The duties imposed on the employer / employees / other
- Responsibilities of duty holders and employees

1. Overview and Introduction to Ergonomics

Workplace (Health, Safety and Welfare) Regulations 1992 - Employers have a general duty under section 2 of the Health and Safety at Work etc Act 1974 to ensure, so far as is reasonably practicable, the health, safety and welfare of their employees at work. People in control of non-domestic premises have a duty (under section 4 of the Act) towards people who are not their employees but use their premises. The Regulations expand on these duties and are intended to protect the health and safety of everyone in the workplace, and ensure that adequate welfare facilities are provided for people at work.

These Regulations aim to ensure that workplaces meet the health, safety and welfare needs of all members of a workforce, including people with disabilities. Several of the Regulations require things to be ‘suitable’. Regulation 2(3) makes it clear that things should be suitable for anyone which includes people with disabilities. Where necessary, parts of the workplace, including in particular doors, passageways, stairs, showers, washbasins, lavatories and workstations, should be made accessible for persons with a disability.

2. Duties Imposed on the Employer/Employees/Others

The Workplace (Health, Safety and Welfare) Regulations 1992 and the Health and Safety at Work Act 1974 have requirements to protect the health and safety of everyone in the workplace, and ensure that adequate welfare facilities are provided for people at work. To this
end Estates Facilities should appoint a suitably competent person to carry out the following actions:

**Ventilation**

Workplaces need to be adequately ventilated. Fresh, clean air should be drawn from a source outside the workplace, uncontaminated by discharges from flues, chimneys or other process outlets, and be circulated through the workrooms. Ventilation should also remove and dilute warm, humid air and provide air movement which gives a sense of freshness without causing a draught. If the workplace contains process or heating equipment or other sources of dust, fumes or vapours, more fresh air will be needed to provide adequate ventilation. Windows or other openings may provide sufficient ventilation but, where necessary, mechanical ventilation systems should be provided and regularly maintained. For further information on mechanical ventilation, please refer to the Estates Facilities’ Code of Practice on Woodworking, Soldering and Welding.

**Temperatures in indoor workplaces**

Environmental factors (such as humidity and sources of heat in the workplace) combine with personal factors (such as the clothing or Personal Protective Equipment (PPE) a worker is wearing and how physically demanding their work is) to influence what is called someone’s ‘thermal comfort’. Individual personal preference makes it difficult to specify a thermal environment which satisfies everyone. For workplaces where the activity is mainly sedentary, for example offices, the temperature should normally be at least 16°C. If work involves physical effort it should be at least 13°C (unless other laws require lower temperatures).

**Work in hot or cold environments**

The risk to the health of workers increases as conditions move further away from those generally accepted as comfortable. Risk of heat stress arises, for example, from working in high air temperatures, exposure to high thermal radiation or high levels of humidity. Cold stress may arise, for example, from working in cold stores, food preparation areas and in the open air during winter. Assessment of the risk to workers’ health from working in either a hot or cold environment needs to consider both personal and environmental factors. Personal factors include body activity, the amount and type of clothing, and duration of exposure. Environmental factors include ambient temperature and radiant heat; and if the work is outside, sunlight, wind velocity and the presence of rain or snow.

Actions arising from the assessment may include:

- introducing engineering measures to control the thermal effects in a workplace environment, for example heat effects, may involve insulating any plant which acts as a radiant heat source, thereby improving air movement, increasing ventilation rates and maintaining the appropriate level of humidity. The radiant heat effects of the sun on indoor environments can be addressed by the use of blinds or shutters on windows and fitting of thermal reflective window film.
- restriction of exposure by, for example, re-organising tasks to build in rest periods or other breaks from work. This will allow workers to rest in an area where the environment is comfortable and, if necessary, to replace bodily fluids to combat dehydration or cold. If work rates cause excessive sweating, workers may need more frequent rest breaks and a facility for changing into dry clothing;
- medical pre-selection of employees to ensure that they are fit to work in these environments;
- use of suitable personal protective clothing (which may need to be heat resistant or insulating, depending on whether the risk is from heat or cold);
- acclimatisation of workers to the environment in which they work, particularly for hot environments;
- training in the precautions to be taken; and
- supervision, to ensure that the precautions identified by the assessment are taken.
Lighting

Lighting should be sufficient to enable people to work and move about safely. If necessary, local lighting should be provided at individual workstations and at places of particular risk such as crossing points on traffic routes. Lighting and light fittings should not create any hazard. Automatic emergency lighting, powered by an independent source, should be provided where sudden loss of light would create a risk.

Cleanliness and waste materials

Every workplace and the furniture, furnishings and fittings should be kept clean and it should be possible to keep the surfaces of floors, walls and ceilings clean. Cleaning and the removal of waste should be carried out as necessary by an effective method. Waste should be stored in suitable receptacles.

Room dimensions and space

Workrooms should have enough free space to allow people to move about with ease. The volume of the room when empty, divided by the number of people normally working in it, should be at least 11 cubic metres. All or part of a room over 3.0 m high should be counted as 3.0 m high. 11 cubic metres per person is a minimum and may be insufficient depending on the layout, contents and the nature of the work.

Workstations and seating

Workstations should be suitable for the people using them and for the work they do. People should be able to leave workstations swiftly in an emergency. If work can or must be done sitting, seats which are suitable for the people using them and for the work they do should be provided. Seating should give adequate support for the lower back, and footrests should be provided for workers who cannot place their feet flat on the floor. Further information can be found in the College’s general guidance for those using computer equipment.

3. Responsibilities of Duty Holders and Employees

The College has a responsibility to protect the health and safety of everyone in the workplace, and ensure that adequate welfare facilities are provided for people at work. To this end we have suitably competent persons to carry out the actions below.

- Provide suitable and sufficient ventilation is provided to the workplace;
- Monitor and regulate the workplace temperature and conduct work specific temperature assessments where necessary;
- Ensure suitable and sufficient lighting and emergency lighting is provided to the workplace;
- Ensuring that the workplace and the furniture, furnishings and fittings are kept clean and waste is stored appropriately;
- Ensure adequate room dimensions and space are provided within the workplace;

Employees and students have a responsibility not to undertake any activities within the workplace that may cause themselves or others harm and adhere to the information, instruction and training provided. They must immediately bring instances having the potential to cause harm to the attention of their immediate line manager.
Appendix 1 - Guidance Documents Available

A simple guide to Workplace health, safety and welfare.

This guide provides information about the legal requirements of the Workplace (Health, Safety and Welfare) Regulations 1992.

It gives a general indication of some of the main requirements of the Regulations. The guidance documents are available at the following link:

http://www.hse.gov.uk/pubns/indg244.pdf

The following link provides a PDF copy of the Workplace (Health, Safety and Welfare) Regulations 1992 Approved Code of Practice: