

CITY AND COUNTY OF CARDIFF

CODE OF GUIDANCE

TEMPERATURE AT WORK

Maintaining a comfortable temperature for people to work in is an important part of occupational health. The human body needs to maintain a fairly constant temperature of approximately 37°C (98°F) and any work in hot or cold conditions which might cause body temperature to rise or fall will cause discomfort and stress. Extremely hot or cold environments will cause greater fluctuations in body temperature and adversely affect a person's general well being and possibly lead to specific conditions such as heat stroke or frostbite.

Purpose

The purpose of this Code of Guidance is to provide advice on workplace temperature and the steps that can be taken to ensure a comfortable working temperature.

The Code of Guidance addresses the following:

- 1.0 Legal requirements in respect of workplace temperature.
- 2.0 Measures to achieve a comfortable working temperature.

1.0 Legal Requirements in respect of workplace temperature

All workplaces are covered by the Health and Safety at Work etc. Act 1974. This sets out the general duties of employers towards their employees and members of the public, and the duties employees have to themselves and to each other. Although temperature is not mentioned specifically, employers are required to ensure, so far as is reasonably practicable, the health safety and welfare at work of all their employees. This includes providing a working environment that is both safe and without risks to health.

The Management of Health and Safety at Work Regulations 1999 require suitable and sufficient assessments of risk to employees to be carried out and this should include a consideration of workplace temperature.

The main Regulations in respect of indoor workroom temperature are in the Workplace (Health, Safety and Welfare) Regulations 1992 with accompanying Approved Code of Practice (ACOP) and Guidance. These Regulations require that:

- (a) The temperature during working hours must be reasonable
- (b) Any method of heating or cooling used should not produce dangerous or offensive fumes, gas or vapour

- (c) Thermometers should be provided in the workplace to measure temperatures

The Regulations do not specify a minimum or maximum indoor workplace temperature. The ACOP does, however, recommend the following:

- (a) A minimum temperature for workrooms of at least 16°C (61°F), or 13°C (56°F) if much of the work involves severe physical effort. These minimum temperatures do not apply to rooms or parts of rooms where it would be impractical to maintain these temperatures, for example in rooms which have to be kept open to the outside or where food or other products have to be kept cold;
- (b) Where reasonably comfortable temperature cannot be achieved throughout a workroom, local heating or cooling should be provided;
- (c) If, despite local heating or cooling, workers are still exposed to uncomfortable temperatures, further action should be taken to resolve the problem.

Other legislation, e.g. the Health and Safety (Display Screen Equipment) Regulations 1992 and the Construction (Health, Safety and Welfare) Regulations 1996 also make reference to workplace temperature.

2.0 Measures to achieve a comfortable working temperature

The term 'comfortable' tends to be rather subjective and difficult to define. This is because sensations of comfort vary with personal factors such as age, gender, state of health and degree of fitness, together with a range of environmental factors. Therefore to achieve a reasonably comfortable thermal environment that will satisfy the majority of people in a workplace a balance needs to be struck between the following:

Environmental Factors

- Air temperature;
- Radiant temperature, i.e. from a heat source;
- Relative air humidity;
- Ventilation;
- Air movement;
- Climatic and seasonal variations, i.e. outdoor temperatures and conditions;
- How the building has been designed and constructed, e.g. type of insulation, glazing, etc.

Personal Factors

- How the individual's body balances the different demands made on it, e.g. some people sweat more than others or feel the cold more;
- The amount and type of clothing and equipment that is worn;
- The type of work being done;
- The age, gender, state of health and degree of fitness of the individual;
- How long the individual is exposed to the hot/cold environment;
- Needs of specific groups of people, such as the old and the young and pregnant women.

Ideal comfort conditions

In assessing comfort, the air temperature is the most important factor although the level of relative humidity and air movement should not be overlooked. For example, a thermometer in a workroom may read a reasonable 21°C (70°), but if humidity is high people are likely to feel uncomfortable.

An acceptable zone of thermal comfort for most people in indoor workplaces lies roughly between 13°C (56°F) and 30°C (86°F). Acceptable temperatures for more strenuous work activities are concentrated towards the bottom end of this range and more sedentary activities towards the higher end.

Relative humidity should be between 30% and 70%. If it is too low there will be discomfort due to drying of the throat and nasal passages. Conversely, high humidity produces feelings of stuffiness and reduces the efficiency of body cooling via sweating.

Ensuring a reasonable degree of air movement is also important to thermal comfort because it distributes fresh air or warmth throughout a workplace or has a cooling effect.

Ensuring thermal comfort in cold weather

Measures that can be taken to help ensure thermal comfort in cold weather include:

- Providing adequate heating in the workplace or local heating such as temporary heaters;
- Reducing exposure to the cold by separating cold items or cold areas from areas where people are working;

- Reducing draughts;
- Providing insulated duckboard or other floor coverings or special footwear where workers have to stand for long periods on cold floors;
- Providing the appropriate type of protective clothing;
- Introducing work systems to limit exposure to a cold environment;
- Allowing sufficient breaks to enable employees to get hot drinks or to warm up in heated areas.

Ensuring thermal comfort in hot weather

Measures that can be taken to help ensure thermal comfort in hot weather include:

- Putting insulating material around hot plant or pipes;
- Providing air-cooling or air-conditioning equipment;
- Providing fans e.g. either desk, pedestal or ceiling mounted fans;
- Ensuring windows can be opened;
- Shading windows with blinds or using reflective film to reduce the heating effect of the sun;
- Siting workstations away from direct sunlight and places or equipment that radiate heat;
- Providing additional facilities, e.g. cold-water dispensers;
- Introducing work systems to limit exposure, such as flexible working;
- Allowing sufficient breaks to enable employees to get cold drinks or to cool down;
- Relaxing formal dress codes, however any required personal protective equipment must be used.

Further Information:

Health and Safety at Work etc. Act 1974.

Management of Health and Safety at Work Regulations 1999.

Workplace (Health, Safety and Welfare) Regulations 1992.

Health and Safety Executive Guidance 'HS(G)194' – Thermal Comfort in the Workplace.