

# A picture of health

by Paul Appleby

**Poorly operated or maintained services can result in an unhealthy workplace. Paul Appleby reviews the CIBSE guidance note that offers advice on how to meet new EC legislation.**

**N**ew regulations, based on the *EC Workplace Directive* and enacted under the *Health and Safety at Work etc Act 1974*, came into force on 1 January 1993. The new CIBSE Guidance Note, *Healthy Workplaces*, is intended to help employers, building owners/operators, workplace safety representatives and employees by offering advice on how to comply with these regulations.

The new CIBSE document provides a review of regulations, associated approved codes of practice and guidance, and gives pointers relating to their impact on building services, indoor air quality and indoor climate for all types of building in which people work. Essentially the review is built around:

- *The Management of Health and Safety at Work Regulations 1992;*
- *The Workplace (Health, Safety and Welfare) Regulations 1992;*
- *The Health and Safety (Display Screen Equipment) Regulations 1992;*
- *The Provision and Use of Work Equipment Regulations 1992.*

The guidance is given in two sections. The first section summarises these regulations, providing a generalised approach to carrying out a risk assessment and introducing systems for compliance with *The Management of Health and Safety at Work Regulations*.

The second section presents interpretations of specific regulations, what they mean to people who use and operate building services and also indicates where further guidance is available.

This information is broken down into subject areas which relate to specific regulations and to specific types of building services. The subject areas covered include:

- heating and air conditioning;
- ventilation and air quality;

- lighting;
- escalators and moving walkways;
- sanitary conveniences and washing facilities;
- drinking water;
- noise;
- miscellaneous equipment.

Alongside each of these headings is a checklist of actions which the building owner or operator should undertake to comply with the good practice implied by the legislation. For example, the checklist under heating and air conditioning covers the following areas:

- check that temperatures do not go outside the ranges recommended by the CIBSE. If there is cause for concern:
- check thermostat settings, accuracy and location;
- check operation and design of thermal systems. If temperatures drift in summer, air conditioning or ventilation may be inadequate or at fault, or heat sources may have been added. If temperatures drift in winter, heating may either be inadequate or at fault;
- check that thermometers are provided in all workplaces;
- check that all thermometers are accurate to  $\pm 0.5^{\circ}\text{C}$ ;
- a system of registering and recording complaints should be in place – a questionnaire survey of all staff may be useful, whereby the number of complaints relating to the thermal environment and operation of heating or air conditioning can be checked;
- check for sources of radiant gain or loss, such as windows or industrial processes – if there is any concern over high temperatures, consider commissioning a thermal environment survey;
- check for sources of draught, such as

poorly positioned air terminals, malfunctioning air conditioning or leaky windows and doors;

□ check for signs of low humidity when outdoor temperatures are low, eg high incidence of static electricity, complaints of dryness and cracks in wood, etc – if there is cause for concern, consideration might be given to monitoring winter humidities indoors and comparing the results with the advised levels in the *CIBSE Guide*, as well as examining the feasibility of adding steam humidification;

□ check type of humidification, if any – if a spray humidifier with pond exists, consider replacing it with a steam humidifier. If an obstruction is located within 1.5 m downstream of the steam humidifier, check for signs of moisture and move the humidifier injector or obstruction if necessary;

□ check that gas-fired boilers and room heaters comply with *BS 5258*;

□ check that the refrigeration system complies with *BS 4434*.

An indication is given of what checks should be within the competence of a building owner/operator and those which require specialist expertise. In view of this, an appendix to the Guidance Note gives model terms of reference for the appointment of specialists.

A further appendix provides sources of information, advice and instrument hire in addition to a list of consultancies run by CIBSE members. Together with the checklists these should enable a building owner/operator to plan a programme of checks to ensure that they are meeting all the building services related requirements of the new legislation.

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