

When companies have their new headquarters fitted out, the one place where no expense is spared is in the reception area. In the firm belief that first impressions are all important, they call in the interior designers to conjure up a company image from a blend of minimalist furnishings, polished marble surfaces and trifid-like plants.

But if you want to know what a company is really like you have to look beyond the stage-set entrance, to the corridors and offices of the everyday working environment. There you will find the modern day equivalent of the Dickensian clerk, beaver away in a basement without natural lighting that was never intended for human occupation. And poor working conditions could well be leaving staff with headaches, lethargy, dry throats and other symptoms of sick building syndrome.

Office workers make up the largest employment group in the UK and research has suggested that around a third may have suffered from some form of illness resulting from problems in the working environment. Earlier this month the Institution of Environmental Health Officers revealed that more than 500 building occupants were sufficiently concerned about the quality of their workplace over the past year to make a complaint to their local authority environmental health department. The House of Commons environment committee's recent report into indoor pollution estimates that SBS is costing the national economy between £330M and £650M a year.

The environment committee takes SBS very seriously. Its report recommended the production of guidelines and codes of practice for indoor air quality, changes to the building regulations and an inspection system for commercial buildings.

The Government responded with scepticism, talking of the "reportedly" high incidence of symptoms. It takes the view that little can be done about SBS "because of the difficulties in defining and linking effects and causes".

SBS experts accept that many factors can contribute to illness — like cigarette smoke, lack of environmental control, boredom at work and building maintenance — but they do not see that as a reason for failing to tackle an

The Colmore Gate development in Birmingham will have high frequency lighting and low level perimeter heating to limit SBS.



services and comfort criteria won the backing of the Commons environment committee, but was rejected by the Government on the grounds that testing could prove "lengthy and expensive".

In spite of the Government's frosty response to the scheme, CIBSE says it will continue to press for testing. CIBSE envisages that the system would work in the same way as MoT testing for cars with pass/fail judgments made on criteria relating to areas like temperature, ventilation, humidity and mite dust. If a building were to fail in any area it would be up to the facilities manager to get the problem rectified by maintenance staff.

Designers of new offices are already giving high priority to comfort criteria and consulting the growing library of research which outlines ways of minimising the risk of SBS. Consulting engineer R W Gregory & Partners had comfort largely in mind when it chose high frequency lighting and low level perimeter heating for the Colmore Gate office building in Birmingham currently under construction by Sir Alfred McAlpine.

The building — designed by Seymour Harris Partnership — is aimed at computer-equipped tenants and had to be flexible enough to meet the needs of the speculative market so air conditioning was considered essential.

Research has shown a higher incidence of SBS symptoms in air conditioned office buildings, but ventilation cannot be seen as a simple cause or cure. A different approach has evolved in the USA, where the slashing of ventilation standards in the 1970s energy crisis led directly to problems.

At Colmore Gate specialist contractor Drake & Scull is installing a variable air volume air conditioning system with air handling units located in rooftop plant rooms. R W Gregory opted for VAV for reasons of flexibility, but such systems have also been promoted as creating a better quality environment. "There is a high standard of fresh air and it can be adjusted," says R W Gregory associate Greg Bancroft.

With building occupant trends starting to move away from "artificial" environments to a more natural approach, air conditioning equipment manufacturers have been striving to improve their products and make them more

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increasing problem.

"If you look at SBS in a static way you never will find the cause. There is no dominant cause, the problem is multi-factorial," says consultant Building Use Studies director David Tong.

Authoritative guidance to show that the problem is being taken seriously and to provide a basis for decision making would be welcomed by those who design, operate and work in buildings. "We are failing to give the internal environment

enough priority and we are failing to manage our buildings. We keep little data on the environment inside buildings so if workers complain it is impossible to react," says Tong.

One proposal aimed at helping to rectify this problem is the inspection system for commercial buildings or "building MOT" developed by the Chartered Institution of Building Services Engineers. The idea of requiring building owners to have a regular check carried out on building

Despite Government scepticism, designers are taking sick building syndrome very seriously and are working to eradicate it.

environment friendly. UK company Klima-Therm is offering fan-assisted VAV developed by US company Enviro-tec. Klima-Therm director Ian Mundie says that the main advantage of the fan-assisted units is that they provide constant air movement and a higher air supply volume to the space under varying load conditions. YRM Engineers put the system to its first major use in this country on the Central Park development in Watford earlier this year.

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