

The quality of American air

ASHRAE too has taken action over the problem of the indoor air pollution and is currently in the process of revising its standards.

The American Society of Heating and Refrigerating and Air conditioning Engineers defines the air needed indoors as air in which there are no harmful or obnoxious contaminants. It refers to the current debate over indoor air quality as one of the most important health issues of this century.

According to ASHRAE president, Frederick H Kohloss, "There is a crying need for more research into indoor air quality far beyond our capability."

In order to tackle the problem ASHRAE has set up three committees: on physiology and the human environment, on gaseous air contaminants and gas contaminant removal, and on particulate air contaminants and their removal. These committees include health profes-

sionals whose job will be to identify areas of research and to integrate research findings in the broad field of environmental health.

A simplistic solution to indoor air pollution has been proposed by ASHRAE. This is to remove or control contaminants at the source; remove or control contaminants by processing the air and by diluting contaminated air with less contaminated air, with or without energy recovery. This does not, however, mean that ASHRAE is unaware of the sick building aspect of indoor air pollution. It states that any space has certain characteristics which have to be taken into consideration; building characteristics, use of space, costs, required effectiveness and installation and operation and

maintenance considerations. Of imminent importance to American designers are the likely changes to ASHRAE Standard 62-1981 on ventilation for acceptable air quality. This has just passed through its draft for comment stage and is due to be published in the autumn of this year. The major change is to increase the per-person ventilation rate from an energy saving biased 2.5 litres/s to 7 litres/s. This is based on the belief that this figure is what is needed to dilute occupant odours to a level acceptable to 80% of visitors first entering a space.

Due next year are the results of a small ASHRAE sponsored study comparing a building specifically designed for low indoor pollution with two that were not.

For BS 5750 read ISO 9000

Just when you have got used to an idea, they change it!

Since 1979 the British quality effort has revolved around the dictates of BS 5750 Quality systems. This standard has now been accepted as the basis for development of the International Standards Organisation's proposed series of standards on quality; designated as ISO 9000. It is expected that BS 5750 will also become a European Standard this year.

Users who may have to alter their systems to comply with the international versions, can obtain guidance from BSI's Certification and Assessment Department.

Tenants want control

A survey by estate agents, Healey & Baker has revealed that office tenants are increasingly conscious of the quality of design of their offices.

The top two aspects of the design according to the tenants asked were internal environmental control and effective heating. Only then came such things as car parking, quality of finishes and security.

According to Healey & Baker, environmental control appeared far more important for computer/electronic tenants. There were also signs that those tenants who regarded the internal amenities as poor in the earlier 1985 survey now place more importance on this aspect of the design, as did tenants in larger office buildings.

On heating, tenants of headquarters buildings regarded it of less importance than manufacturers.

After security came provision for cable trunking and, equal eighth with the quality of the entrance hall, was lift performance and reliability. Tenants renting at more than £20 per sq ft regarded lifts as more important than others. Financial tenants saw lifts as more important than computer/electronic companies.

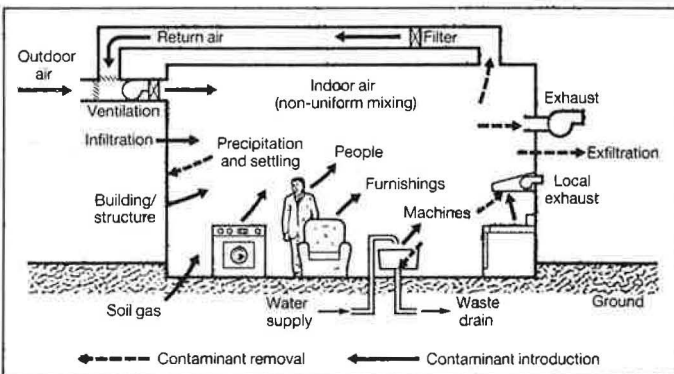
At the bottom came the external appearance of the building! There must be a message in there for architects and developers.

Revised contract conditions

Radical changes have been made to the Conditions of Contract (International) for Electrical and Mechanical Works — the Yellow Book. A revised Third Edition should have been published in June by the International Federation of Consulting Engineers (FIDIC).

The objective has been to produce a document that is more acceptable and understandable by those country's whose native language, legal systems and traditions are not English.

Orders should be addressed to FIDIC Secretariat, PO Box 86, CH-1000 Lausanne 12 Chailly, Switzerland. Price Swiss Francs 30.



Generalised indoor air contaminant system.

DEGREE DAY DATA

Degree day figures are a record of the extent and length of time in a particular month for which the external temperature fell below 15.5°C. By comparing the amount of fuel used with the number of degree days it is possible to check the performance of heating plant. For details see Department of Energy Fuel Efficiency booklet 7: Degree Days (available from Department of Energy, Thames House, Millbank, London SW1, telephone 01-211 7156). Early figures are available from BSRIA Information Centre 0344 426511. The first line of figures each month gives the average for the past 20 years. P indicates provisional figures; final figures are published two months later.

		Thames Valley	South Eastern	Southern	South Western	Severn Valley	Midlands	West Pennines	North Western	Borders	North Eastern	East Pennines	East Anglia	West Scotland	East Scotland	N.E. Scotland	Wales	Northern Ireland
Feb	20 yr	310	331	313	273	311	347	330	337	344	348	340	342	344	351	362	309	327
	1987	306	331	324	283	293	339	324	336	333	344	335	339	351	353	351	318	328
Mar	20 yr	281	306	295	266	290	315	306	317	323	314	304	311	322	326	340	300	316
	1987	326	346	328	292	311	339	345	352	359	359	354	373	361	360	377	336	338
Apr	20 yr	206	234	225	204	214	244	232	246	271	248	232	241	247	264	279	239	243
	1987P	143	169	192	164	133	176	165	199	228	186	181	171	217	222	216	173	194
May	20 yr	120	151	147	137	135	162	145	167	207	169	153	150	172	198	209	170	173
	1987P	135	159	153	140	127	181	168	195	223	189	179	185	182	195	218	181	174