

Facilities Management from A to Z



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Air Quality

Indoor air quality has become of increased importance to facility managers in recent years as employees have grown increasingly concerned by health issues like Sick Building Syndrome, asthma and infectious illness. These worries are exacerbated by a growing number of organisations offering ductwork cleaning services and by changes in work and workplace design.

Under the Health & Safety at Work Act 1974 and the Occupiers Liability Act 1984, an employer has a duty of care to ensure that a safe and healthy workplace is provided. The Workplace (Health, Safety and Welfare) Regulations Code of Practice, states that indoor air quality should be at least equal to, but ideally better than, the air outside the building. HSE document EH40 contains a list of maximum exposure limits and occupational exposure standards for specific gases as required by the Control of Substances Hazardous to Health (COSHH) Regulations.

In 1991 the House of Commons Environment Committee's Sixth Report on Indoor Pollution recommended regular assessments of air quality within buildings. This is not a legal requirement in itself but is considered good practice. A number of commercial scientific organisations carry out these services. These are usually accredited, independent companies with no links to any other products or services. This ensures that the results of the tests are unbiased and not used as a means to sell additional cleaning or treatment services. The auditors should have UKAS accreditation for the microbiological testing which their laboratory conducts.

Such assessments should include analysis of the outside air measuring the types and amounts of dust, bacteria and gases before the air is filtered, heated or chilled. This provides a benchmark to demonstrate that the air inside the building is at least equal to the air outside.

A similar analysis should measure levels of dust and bacteria inside the workplace, to ensure that the filters are removing the majority of the contaminants from the outside air.

Ventilation rates should also be measured, to ensure that they are satisfactory and are therefore removing contaminants such as carbon dioxide (which at high levels can cause lethargy). Specific gases, such as carbon monoxide and ozone, should be monitored to ensure that the levels present are within the occupational exposure limits established by the Health and Safety Executive (HSE)

Although the Workplace Regulations state that ventilation systems should be kept clean, they do not state the frequency at which they should be cleaned. As long as an FM can demonstrate that they are monitoring air quality and that the indoor air quality is good, there is no need to pay for expensive duct cleaning.

The results of an air quality audit will provide management information to prove that the air is safe and healthy to breathe. If air quality is less than satisfactory, solutions may be as simple as increasing the fresh air ventilation rates.

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