

Independent Guide

What do I need to know about indoor air quality?



Independent workplace compliance

Why is indoor air quality so important?

Indoor air quality has become very important in recent years due to:

- COVID-19 pandemic
- Public awareness of issues which can affect the workplace environment, which have been linked to poor indoor air quality;
- Investigations into indoor pollution;
- A growing number of ventilation hygiene organisations using pressure selling tactics to persuade facilities managers to buy ductwork cleaning services; and
- Changes in the way we work and where we work, which have given rise to concern over indoor air quality.

What are the legislative requirements concerning indoor air quality?

Under the Health & Safety at Work etc. Act 1974 and the Occupiers Liability Act 1984, an employer has a duty of care to ensure that a safe and healthy environment is provided. The Approved Code of Practice accompanying the Workplace (Health, Safety and Welfare) Regulations, states that indoor air quality should be at least equal to, but ideally better than, the air outside your 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.

How do you establish whether indoor air quality is good or inferior?

Regulation 6 of the Workplace (Health, Safety and Welfare) Regulations states that: "Effective and suitable provision shall be made to ensure that every enclosed workplace is ventilated by a sufficient quantity of fresh or purified air." The ACOP also states that "The air which is introduced should, as far as possible, be free of any impurity which is likely to be offensive or cause ill health". Regulation 7 relates to 'Temperature in indoor workplaces' and Regulation 8 states that "lighting should be sufficient to enable people to work, use facilities without experiencing eye-strain, and safely move from place to place".

To monitor that this is being achieved, an Indoor Air Quality Assessment should include:

- Outside air: Types and amounts of dust, bacteria and gases should be measured prior to being filtered, heated or chilled. This will act as a benchmark to demonstrate that the air inside your building is at least equal to the air outside.
- Indoor air: Dust and bacteria should be measured in 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 carbon dioxide, should be monitored to ensure that the levels present are within the occupational exposure limits established by HSE.
- Comfort conditions: air temperature, relative humidity, light levels and head height airflow should be measured to ensure that the comfort conditions are optimal for your occupants.

Do ventilation systems need to be cleaned every year?

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 you can demonstrate to the enforcement agencies that you are monitoring the quality of the air (and that your indoor air quality is good), you will be complying with these Regulations. Since 1986 we have audited thousands of ventilation systems and less than 1% of those audited required ductwork cleaning. When air quality is less than satisfactory, there is usually a simple and cost effective solution, such as increasing the fresh air ventilation rates.



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Who should carry out an indoor air quality audit?

An accredited, independent company with no links to any other products, services or companies should carry out audits. This will ensure that the results of the tests are unbiased and will not be used as a means to sell you cleaning or treatment services. The auditors should have UKAS (United Kingdom Accreditation Service) accreditation for the microbiological testing which their laboratory conducts.

This guide is of a general nature; specific advice can be obtained from Assurity Consulting. Assurity Consulting is the UK's leading independent compliance consultancy specialising in workplace health, safety and environmental solutions. We have over 30 years' experience of helping customers of all sizes, from across all sectors, manage their compliance responsibilities, making sure that their organisation is compliant, their employees are safe, their processes are cost effective and their management team is in control.



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