

With Every Breath We Make Clean Air Workplace series: Bitesize 4



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**START WITH
CLEAN AIR**





Bitesize 4: Air pollution in the workplace - solutions

Bitesize 4 considers solutions to address workplace indoor air pollution. It covers everything from required policy changes and increased regulatory enforcement, to practical measures that can be adopted in every workplace setting. It is the last of four within the Clean Air Workplaces Bitesize series, which supplements the White Paper, *With Every Breath We Make: Ensuring Healthy Air for Manufacturing Workers*.

A summary of the Bitesize brief series

In [Bitesize 1](#), we note that the COVID-19 pandemic focused attention on the health and safety of frontline NHS and care workers. However, we acknowledged that there are other key workers that cannot work from home and worked throughout the pandemic. They continue to do so to meet all our essential needs.

For example, people working in retail, distribution and industrial settings need indoor air quality protections beyond ventilation to combat COVID-19. They need holistic protection to ameliorate the effects of all harmful air pollutants found in indoor settings. This is the focus of our Clean Air Workplaces campaign.

In [Bitesize 2](#), we explained the health data in context, highlighting that the World Health Organisation (WHO) and the UK Government recognise that air pollution is the largest environmental health risk we face today.

Air pollution is responsible for 36,000 deaths a year in the UKⁱ and negatively impacts the health of the 12.7 million people who live with long-standing respiratory conditionsⁱⁱ and 7.4 million people living with heart and circulatory diseasesⁱⁱⁱ.

In [Bitesize 3](#) we explained the regulatory and enforcement environments. The case for strengthening workplace indoor air pollution standards in the UK is clear. As well as causing serious illness to workers^{iv} there is also an adverse impact on operations. For example, workplace indoor air pollution can directly increase the costs of production owing to equipment failures, which can lead to products that do not meet quality controls, less efficiency in the heating systems, and increased time and cost dedicated to cleaning^v.





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In addition to highlighting how current regulations are not fit for purpose, we described how the underfunding of both local authorities and the Health and Safety Executive (HSE) has led to inadequate enforcement of the protections for workers over the decades.

This situation presents an opportunity to businesses to minimise airborne particulates and gaseous pollutants which are harmful to their workers' health, based on a business case that is focused on lowering cost of operations and improved productivity, as well as ensuring higher protections for workers' health and wellbeing, which is an employer's legal duty^{vi}.

The current regulations in the UK permit allow levels of indoor airborne hazards and pollutants that are dangerous to workers' health^{vii}. Contrastingly, external 'ambient' air pollution has received much attention over recent years.

It's now time for government and businesses to focus on indoor pollution in all workplace settings.

Regulatory Solutions

- Some exposure limits for indoor air pollutants were last set (including the latest Control of Substances Harmful to Health (COSHH) Regulations PM_{2.5} target) in 1997^{viii}. Exposure limits for indoor air pollutants are long overdue for review and amendment.

- Over the last ten years, a wealth of evidence has emerged around the impact of airborne pollutants on every organ in the body^{ix}.
- The UK Government needs to review exposure limits for all indoor air pollutants, for which new evidence has become available since 1997^x.

Monitoring & Enforcement

- The HSE and local authorities need greater resources to enforce existing regulations with the support of the UK Government, employers and trade unions working in partnership to deliver healthier and safer workplaces.
- Interventions should be proactive with more spot checks carried out at a reasonable frequency and undertaken in a way which uncovers the typical operations that generate harmful indoor air pollutants, in each workplace setting^{xi}.
- This will enable the HSE and local authorities to determine the actual levels of indoor air pollution in a wider variety of workplace settings, which in turn will help inform local authorities to develop evidence-based policy on allowable limits.



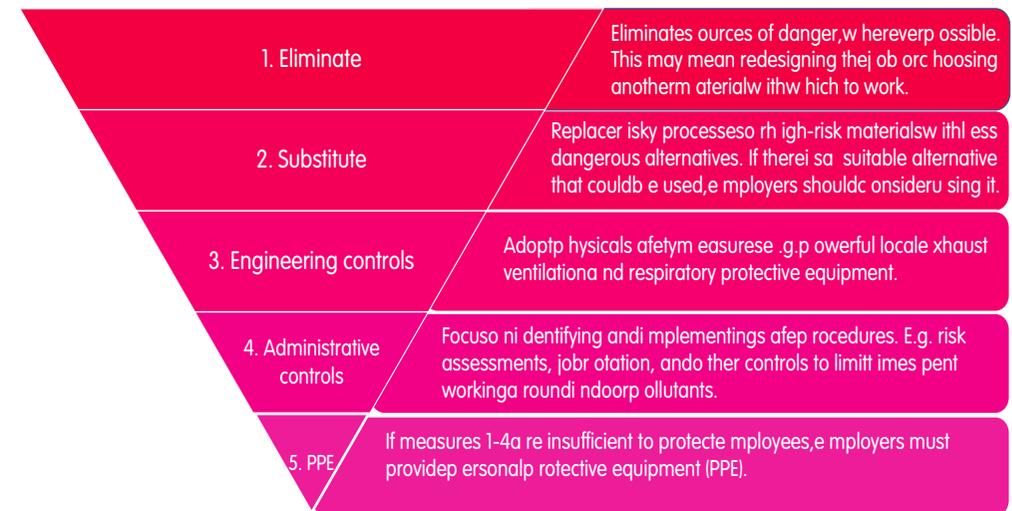
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Proactive Workplace Action

- Employers are encouraged to view trade union safety representatives as partners in seeking to improve the health and safety environment for all workers.
- Safety representatives are an invaluable resource that can provide insights to responsible employers on opportunities to improve health in the workplace and enhance productivity.
- As well as providing ideas on potential improvements to management, they can also identify site specific interventions to improve worker health.
- An example, identified during an indoor air pollution monitoring exercise carried out by Global Action Plan was the servicing of a legacy heating system that had been overlooked during regular maintenance.
- During the monitoring exercise, this legacy heating system led to spikes of $PM_{2.5}$ of $125\mu g m^{-3}$, which is 8 times the 24-hour mean threshold recommended by the WHO^{xii}. This resulted in the management ensuring that the legacy heater would be included in subsequent cleaning regimes.
- Simple and low-cost remedial measures can reduce indoor airborne pollution when issues are identified.

Hierarchy of Intervention

The below Hierarchy of Control is a systematic approach, used by organisations to help minimise or eliminate exposure to hazards in the workplace.



The moment for change is now.

It's time to build back better and fairer.



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Endnotes

- i Public Health England. Air pollution evidence review. Available from: <https://www.gov.uk/government/news/public-health-england-publishes-air-pollution-evidence-review>
- ii British Lung Foundation. Lung disease in the UK – big picture statistics. Available from: <https://statistics.blf.org.uk/lung-disease-uk-big-picture>
- iii British Heart Foundation. July 2020. Heart and Circulatory Diseases in UK Statistics. <https://www.bhf.org.uk/what-we-do/our-research/heart-statistics/heart-statistics-publications/cardiovascular-disease-statistics-2020>
- iv Cherrie, J.W., Brosseau, L.M., Hay, A. and Donaldson, K., 2013. Low-toxicity dusts: current exposure guidelines are not sufficiently protective. *Annals of occupational hygiene*, 57(6), pp.685-691. <https://www.research.ed.ac.uk/en/publications/low-toxicity-dusts-current-exposure-guidelines-are-not-sufficient>
- v Breathing life into the UK economy - Quantifying the economic benefits of cleaner air, September 2020: CBI Economics. <https://www.cbi.org.uk/media/5539/2020-09-cbi-economics-caf-report.pdf>
- vi Breathing life into the UK economy - Quantifying the economic benefits of cleaner air, September 2020: CBI Economics. <https://www.cbi.org.uk/media/5539/2020-09-cbi-economics-caf-report.pdf>
- vii Trade Union Congress, Sept 2011. Position paper by TUC members on ACTS on dust standards. <https://www.tuc.org.uk/sites/default/files/GC%20report%20complete%20all%20together.pdf>
- viii The Control of Substances Hazardous to Health Regulations 2002 (as amended). <https://www.hse.gov.uk/pubns/priced/l5.pdf>
- ix Institute of Occupational Medicine, May 2011. The IOM's position on occupational exposure limits for dust. <https://www.iom-world.org/media/1656/position-paper.pdf>
- x All-Party Parliamentary Group on Occupational Safety and Health, 2018. Local authorities and health and safety. https://www.tuc.org.uk/sites/default/files/APPG_Local_Authorities_Report_2018_AW.pdf
- xi Trade Union Congress, Sept 2011. Position paper by TUC members on ACTS on dust standards. <https://www.tuc.org.uk/sites/default/files/GC%20report%20complete%20all%20together.pdf>
- xii World Health Organization, May 2018. Ambient (outdoor) air pollution. [https://www.who.int/news-room/fact-sheets/detail/ambient-\(outdoor\)-air-quality-and-health](https://www.who.int/news-room/fact-sheets/detail/ambient-(outdoor)-air-quality-and-health)
- xiii Breathing life into the UK economy - Quantifying the economic benefits of cleaner air, September 2020: CBI Economics. <https://www.cbi.org.uk/media/5539/2020-09-cbi-economics-caf-report.pdf>