SA firms urged to tackle indoor air quality

By Lynne Kuter

25 Apr 2024

A pressing health crisis is looming over South Africa's workforce as many companies neglect the hazardous state of indoor air quality within their premises.

Source: Supplied.

Numerous companies remain oblivious to the urgent need to tackle the silent menace of indoor airborne pathogens and pollutants, even as South Africa grapples with its outdoor air quality crisis.

Recent revelations from a *Bloomberg* article shed light on the severity of the situation.

The Vaal Triangle, particularly Vereeniging, consistently records alarming levels of harmful particulate emissions, with the highest concentration of microscopic emissions known as PM2.5. This underscores the urgent need for immediate action to improve indoor environments as well.

The findings are corroborated by the latest *Greenpeace* report, which projects a grim future with an estimated 79,500 pollution-related deaths expected in South Africa due to sub-standard air quality. The report also highlights the country's PM2.5 levels, nearly five times above the recommended safe limits set by the World Health Organization (WHO), emphasising the critical need for urgent interventions to purify indoor environments.

Outdoor air quality significantly impacts indoor air quality, yet many companies fail to grasp the implications for their employees' health. Increasing ventilation rates alone does not suffice, as neglected air-conditioning systems and ductwork can harbour harmful contaminants such as viruses, bacteria, and mould.

Duct contamination and indoor hazards

Reports indicate that a significant proportion of ducts are contaminated, with a concerning percentage housing pathogenic bacteria. Moreover, indoor spaces are often laden with various chemical agents from perfumes, aerosols, cleaning products, and airborne fiberglass particles. Considering that individuals spend a substantial portion of their time indoors, exposure to these pollutants poses serious health risks.

Moving forward, South African companies should take decisive action to address the indoor air quality crisis. Safeguarding employees' health is paramount for productivity and wellbeing. Innovative solutions include advanced photocatalytic oxidation (PCO) and ultraviolet C radiation (UVC) technologies, initially developed by Nasa, which effectively purify indoor air by reducing harmful pathogens and pollutants.

PCO harnesses the power of light to trigger a chemical process that purifies air, while UVC technology targets airborne viruses, neutralising them at the source of contamination.

Integrating these air-purification systems sets a new standard for workplace health and wellness, ensuring that employees are protected from indoor air pollution.

ABOUT THE AUTHOR

Lynne Kuter is the director of Leep Solutions