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Indoor Air Quality & Health Lessons Learned from the Past Century

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Summary

The oil crisis in the1970s had to lead to an energy crisis and in order to conserve energy, buildings were made tighter, for example double-glazing and insulation were incorporated. Thousands of new materials for building and furnishing were introduced. The building envelope was tightly sealed. Air leakage was reduced and substances which would otherwise be purged out of a building, stayed in. Sick-building syndrome, inexorably, became established and recognised by the World Health Organisation (WHO). The problem was not so much the result of insufficient quantity of fresh air but more the result of reduced air quality. Discomfort, ill health and even absence from work all contributed to reduced efficiency and effectiveness and may result in loss of productivity and absenteeism.

Allergy and environmental health problems in buildings have generally been neglected because the effects are mostly chronic and long-term and not directly and immediately life threatening. People are increasingly dissatisfied with the air quality in their work places and this is costing employers millions of pounds every year in loss of business. Healthy and comfortable environment requires multi-disciplinary scientific input from those involved in building construction, services and controls, design, use and maintenance of buildings.

Building related illnesses, sick building syndrome (SBS) and allergy and environmental problems in buildings can have direct and indirect impact on health, work place comfort and productivity of the occupants. The enhancement of Indoor air quality (IAQ) and the management of the above problems can lead to improvement in health and comfort and gains in productivity. Facilities managers, and human resource departments or those responsible for occupant health and safety at work often misunderstand the causes of illnesses and stress and sometimes concludes that it is an individual problem and completely ignore the fact that problems may lie within the workplace.

Indoor air quality and health at workplace environment is a growing concern to employers and it is a complex issue, which requires a multidisciplinary integrated approach. Exposure to indoor allergens is a risk factor for the development of allergic reactions and the incidence of the problem is increasing at an alarming rate. This reflects on the health, comfort and productivity of the occupants and also increases in the rate of sickness at work places.

The fundamental understanding and close dialogue between employees & human resources; facilities managers & health & safety officers; architects, engineers and building health specialists is essential, in order to identify, evaluate, monitor and remedy health problems in buildings. In this article I will be discussing allergic reactions in buildings, Sick Building Syndrome and Building Related Illnesses.

Self-financing building MOT's will be the key factor in monitoring and addressing health problems in buildings in this century.