

## **Addressing important scientific and policy questions on the quality of indoor environments: a short discussion paper and proposal from the UKIEG**

### ***Questions for COMEAP Members***

COMEAP members are requested to consider the attached paper from the UKIEG and are asked specifically to:

- (1) Comment on its views on establishing a mechanism to expand the development of independent scientific advice on the indoor environment and human health;
- (2) Consider whether COMEAP would be receptive to commenting on position statements relating to aspects of indoor air quality provided by the UKIEG;
- (3) Consider COMEAP's possible contribution to a workshop aimed at discussing the issues raised in this document.

# Addressing important scientific and policy questions on the quality of indoor environments: a short discussion paper and proposal from the UKIEG



## ***About the UK Indoor Environments Group (UKIEG; [www.ukieg.org](http://www.ukieg.org))***

UKIEG was set up in 2003 with the goal of co-ordinating and providing a focus for UK activity concerned with improving indoor environments for people. It has some 250 members from a range of organisations and disciplines, including architects, engineers, environmental scientists, toxicologists and medics. It works as a networking group to encourage research and appropriate policy developments to improve health and wellbeing in indoor environments, including homes, schools, hospitals, workplaces and public places.

## ***Background***

There are a number of building-related factors that can have direct and significant effects on health. Even if only quality of the air is considered, it is clear that for many pollutants the indoor environment makes a greater contribution to personal exposure than exposure outdoors. But healthy indoor environments depend on more than the provision of clean air at appropriate temperatures; good lighting, ergonomics, sound levels and visual aesthetics are also important. There is also some evidence that poor working environments can contribute to absenteeism and reduced productivity.

There is at present in the UK a lack of a coordinated approach to the indoor environment as a whole, especially with regard to policy development. This is particularly important because of the pulls and pushes of different, sometimes conflicting, government policy imperatives that address, for example, energy efficiency, building design and construction, product emission standards, ventilation standards and air pollution guidelines/limit values. Moreover, there is no one particular department or agency that has overall responsibility for issues relating to the indoor environment, or even specifically to indoor pollution.

## ***Our Proposal***

We suggest that there is a clear need to establish a process or mechanism by which it will be possible to develop coordinated policy on issues pertaining to the indoor environment and human health and wellbeing; this should result, amongst other things, in the ability to provide information and guidance - to public and professionals alike - that leads to a better understanding and management of the health risks and benefits associated with the design, construction and use of buildings and other internal environments.

There are three necessary elements:

1. The naming of a specific government department (or agency) to take lead responsibility for issues relating to the indoor environment and public health.
2. The establishment of a forum of representatives of government departments and agencies with interests and responsibilities in the indoor environment, including Defra, DH, DCLG, DECC, DfT,

BIS, PHE and HSE, and other interested parties/organisations such as CIBSE, RSPH, RIBA, CIEH and GHA as well as the UKIEG.

3. The establishment of a process by which scientific questions pertaining to the indoor environment can be addressed by independent scientists – this may involve existing committees (such as COMEAP, COT, HSAC, BRAC) and/or the establishment of a new committee or new sub-groups in existing committees.

### ***Some Specific Current Needs***

We suggest that the following topics require immediate attention:

- Ventilation control of dwellings and the health risk-benefit trade-offs of reducing air exchange for the purpose of improving energy efficiency in housing;
- The role of housing/building policy in preventing summer and winter-related mortality and morbidity;
- The role of housing/building policy in adapting appropriately to climate change;
- The health risks associated with specific pollutants of the indoor air, and the potential cost-benefit of different forms of remediation;
- Overcrowding in dwellings and the principles for establishing health-based standards of adequate space;
- Design aspects relevant to the positive promotion of health and wellbeing through such measures as the selection of low-emitting materials, improved natural lighting, noise control, improved outlook, sound insulation and provision of private space.

The above listed issues mostly relate to housing, but there are additional important issues concerning other indoor spaces, including workplaces, schools, hospitals and transportation for example. More generally, there is the need for a recognised source of information for public and professionals on health risks and benefits linked with the quality of the indoor environment.

It is worth noting that the health effects of PM<sub>2.5</sub>, NO<sub>2</sub> and O<sub>3</sub> are among the current priorities for COMEAP and that for these pollutants exposure is highly dependent on time spent in the indoor environment, the characteristics of buildings, people's activities and indoor sources. This highlights the importance of taking an integrated approach that takes account of indoor environments when assessing the health impact of outdoor pollutants. UKIEG contends that this aspect requires greater attention than presently demonstrated by government departments with responsibility for pollution and public health.

### ***UKIEG's Role***

The UKIEG acts essentially as a catalyst for action. We have no central funds, but would be able and willing to produce a range of pertinent 'position statements' for consideration by government departments, agencies and expert committees, as appropriate. These would be relatively brief documents discussing concepts and points of principle with limited reference to published scientific literature. Formal evidence reviews would be beyond the time and resources available unless grant income were obtained that would allow commissioned inputs from academic and other groups.

UKIEG is also keen to aid in the organisation of relevant fora, meetings and workshops, as mentioned elsewhere in this document.

### ***Next Steps***

We are seeking reactions and responses to the above suggestions and would welcome the opportunity to be involved in – and help plan – a pan-organisation workshop to discuss some of these issues.

The views of COMEAP members would be highly valuable in this respect. In particular we would welcome comments and suggestions on:

- The establishment of a mechanism to expand the development of independent scientific advice on the indoor environment and human health
- Whether COMEAP would be receptive to commenting on position statements relating to aspects of indoor air quality provided by the UKIEG
- Whether the Committee would be willing to contribute to a workshop aimed at discussing the issues raised in this document.

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