

Written evidence from the Health and Safety Executive (ASB0049)

We appreciate the opportunity to respond to some of the concerns raised by Mr Robin Howie in his letter to the Chair of the Work and Pensions Select Committee dated 16 March 2022.

In his letter Mr Howie reiterates opinions that he has expressed previously to the Committee. We will not give a detailed response to all the points raised as we believe that the evidence we presented over the course of the Committee's inquiry sets out our position clearly. However, there are some specific points raised by Mr Howie, where we felt additional clarification may be useful to assist the Committee.

We welcome the opportunity to provide clarification on the comments made by Sarah Albon, HSE's CEO, on the issue of fibres settling out from the air. It is important to consider the statement made by Sarah Albon in context and consider the complete answer provided. Sarah Albon was explaining to the Committee the substantial limitations of attempting to use background airborne fibre monitoring to inform decision making surrounding the management of asbestos-containing materials (ACMs) by referring to the speed that asbestos fibres settle out of the air.

HSE evidence from research/experimental work¹ on disturbing asbestos (in the context of resuspending dust and debris during clearance procedures by physical brushing after removal work) shows that airborne fibre levels will reduce quickly by 50% after 10 minutes and by 90% after 1 hour, although finer/smaller fibres take longer to settle out. Airborne fibre levels are further diluted and dispersed in buildings due to normal air movement/air currents, air exchange, diffusion, interception and electrostatic effects. Sarah Albon used non-technical language in the context of her wider response to the Committee.

As part of the overall answer regarding the usefulness of background airborne fibre monitoring, Sarah Albon went on to use the analogy of a smoke detector. A smoke detector continuously monitoring the air 24/7, 365 days a year is a reliable early warning device to detect a smoke generating event such as a fire or illegal cigarette use. Air monitoring for asbestos fibres using the current approved method would not provide a feasible approach to enable continuous monitoring for fibre levels in a room. It could only be used to provide reliable and useful information in relation to specific sampling periods, which also included contextual information regarding the activities being undertaken, and the environmental conditions in the room during the period of time in which the air was being sampled.

Evaluation and interpretation of this kind of data needs to acknowledge that asbestos fibres are not continuously emitted from asbestos containing materials and these would have to be disturbed while the sampling was taking place, for anything significant to be detected by any form of microscopy (i.e., Phase Contrast Microscopy, Scanning Electron Microscopy or Transmission Electron Microscopy).

Therefore, HSE's considered opinion is that there is little benefit in carrying out routine airborne monitoring in buildings for asbestos fibres and that robust frequent visual inspection and protection of asbestos in situ is more effective and preventative at controlling exposure in buildings known to contain asbestos.

¹ Improved Methods for Clearance Testing and Visual Assessment of Asbestos Removal Operations. HSL/2001/1

In addition, Mr Howie questions HSE's use of published research and statistics in support of our regulatory approach. As HSE's Chief Scientific Adviser, part of my role is to ensure that the evidence used to inform policy and regulatory activity has been reviewed and that research is undertaken when appropriate to fill significant gaps in this evidence base. This has led to HSE scientists and analysts producing a significant body of research in the area of asbestos exposure for over twenty years. This evidence has been subject to peer review in high impact journals, and scrutiny through presentation at national and international conferences.

We do not agree that our statistics on mesothelioma deaths by occupation are flawed as suggested by Mr Howie. We do accept that proportional mortality ratios (PMRs) produced by HSE encompass variation in the background mesothelioma risk as well as specific occupational effects due to the handling of asbestos at work. We also know that the current data predominantly relate to the cohort of people who lived through the period of peak use in the 1960s and 1970s, and that other research commissioned by HSE (led by Professor Peto) shows that their background rates are particularly high due to exposures when asbestos was still being widely used. The PMRs show that there is variation in the average risk amongst those who worked in occupations not involving the use of asbestos, and the latest data for females suggest that those who worked as teachers and administrative workers have somewhat higher mesothelioma rates than, for example, those who worked as nurses or retail workers.

However, past exposures in buildings may have contributed to the background risk seen across all of these jobs to some extent; in addition, other sources of exposure, for example in housing stock, are also likely to have contributed. It is also important to note that all the exposures that contributed to deaths in the current statistics substantially predate the current control regime which is designed to prevent inadvertent disturbance of asbestos in buildings and so protect maintenance workers and building occupants. Attempting to rescale the PMRs so that they reflect the excess mortality over and above what the true background rate would have been, had asbestos never been used in Great Britain (irrespective of how this rate was estimated), would not change the interpretation of the statistics about which occupations are linked to highest rates of asbestos related disease.

The current tragic loss of life we experience each year from mesothelioma and other asbestos related diseases are based on historic exposures when the current framework was not in place. More broadly, asbestos remains a key priority health topic for HSE and we will continue to consider how the body of evidence develops when taking this work forward.

I hope that this letter clarifies HSE's position on some of the points raised by Mr Howie.

March 2022