Review of UK asbestos management 2022

THE FIRST ANNUAL DATA ANALYSIS REPORT INTO ASBESTOS IN UK BUILDINGS

NOVEMBER 2022
This report was produced by Asbestos Testing and Consultancy (ATaC) and the National Organisation of Asbestos Consultants (NORAC). We would also like to thank Jonathan Grant, Jonathan Francis, John Richards and Ben Angell-James for authoring the report and our membership organisations for agreeing to allow their survey data to be analysed for the purpose of this report.

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CONTENTS

EXECUTIVE SUMMARY 2
INTRODUCTION 4
BACKGROUND 6
AN OVERVIEW 8
FINDINGS PART 1 – DAMAGED ACM 10
FINDINGS PART 2 – LICENSED AND NON-LICENSED ACM 13
FINDINGS PART 3 – DOMESTIC PREMISES 15
FINDINGS PART 4 – REINSPECTION OF ACM 17
FUTURE CONSIDERATIONS 19
APPENDIX 1 21
This report is the first annual data analysis report into asbestos in UK buildings. It is a response to the recent inquiry into asbestos management in the UK by the Work and Pensions Committee which highlighted that little evidence exists about the current extent and condition of asbestos in UK buildings.

The report analyses anonymised data gathered by a number of United Kingdom Accreditation Service (UKAS) accredited asbestos survey organisations. It is the first time that any organisation has attempted to analyse and understand a large body of data that is already collected about asbestos in UK buildings.

The survey data was collected over a six-month period from October 2021 to March 2022. The data shows:

- Of the 128,761 buildings inspected, 100,660 (78%) were found to contain asbestos

- Within those 100,660 buildings, 710,433 items of asbestos were found

- Out of the 710,433 items of asbestos, 507,612 (71%) were recorded as having some level of damage

- Of the 507,612 damaged items, 120,629 (24%) would be classed as “licensable” work and require a specialist contractor
This analysis indicates that there is currently a high proportion of asbestos materials in UK buildings that could present a potential risk to public health, and which need remediation or removal.

The analysis also shows that a proportion of the sample data for materials in poor condition has been subject to re-inspection. It can be concluded that these items were in good condition at the time of the original survey and have deteriorated, or that the items were in a less than good condition and the duty holder has failed to undertake any action. Either approach would suggest that overall asbestos management in these premises is failing.

It is clear that data is available that can inform an analysis of the UK’s asbestos legacy in buildings. Further development is required to expand the data set (to include all accredited survey data) and to standardise how data is collected and organised (e.g. to better identify different types of buildings such as social housing, hospitals and schools etc.). This would be necessary for the development of an effective national database.
This year is the 20th anniversary of the Duty to Manage asbestos introduced by Health & Safety Executive (HSE) with the Control of Asbestos at Work Regulations 2002. Over the last few months two industry bodies, Asbestos Testing and Consulting (ATaC) and National Organisation of Asbestos Consultants (NORAC), representing the majority of UKAS accredited asbestos surveying organisations, have gathered over a million data points from around 128,000 premises across the country to assess the condition of asbestos in UK buildings.

To give some context to this report, in early 2022 the Department for Work and Pensions (DWP) completed its committee inquiry into the Health and Safety Executive’s management of asbestos in the UK.1 During the inquiry evidence was submitted by a wide range of interested bodies, stakeholders and other organisations which was used to inform the oral questioning of the HSE by the committee.

However, it was apparent throughout the inquiry that little evidence existed specifically regarding the current extent and condition of asbestos in the UK buildings, perhaps the most important indicators of effective asbestos management. Given that a large proportion of asbestos surveys are carried out using electronic data collection and report generation, the collation of empirical data can be relatively straightforward.

The methodology for carrying out asbestos surveys is described in HSE Guidance Document HSG 264. In addition to this there is an accreditation scheme for asbestos survey companies which is overseen by the UKAS. Companies who are accredited according to this scheme are assessed against the ISO standard ISO 17020 and are known as inspections bodies (IBs).

Adherence to the HSE method and participation in the accreditation scheme are both non-mandatory, this data has only been collected from UKAS accredited companies, demonstrating the data meets, if not exceeds, the requirements imposed by HSE.

Historic exposure to asbestos causes around 5500 deaths a year in the UK² whilst the fire at Grenfell Tower resulted in 72 deaths. To put this into context, the number of annual asbestos deaths is the equivalent of a Grenfell Tower fire happening every 5 days. It is therefore essential to ensure that all efforts are made to minimise exposure to asbestos and prevent these deaths occurring annually.

2. HSE Asbestos-related disease statistics, Great Britain 2022. Published July 2022
Following an initial request for information, a number of Inspection Bodies (IB’s) agreed to collate their survey information into one data set.

A total of 20 companies have now contributed to this exercise, and with the assistance of the software providers, the initial data gathering exercise has grown to comprise over one million data points which are referenced and analysed in this report.

We believe this is the largest and most comprehensive data set of its kind to have been collated and analysed and builds on various Freedom of Information (FOI) requests that have been carried out in recent years regarding asbestos in schools, NHS premises and other property sectors.

It is important to note that in the UK at present it is not mandatory to hold UKAS accreditation in order to carry out asbestos surveys, indeed there is no legal requirement to hold any qualifications whatsoever. More details on this can be found in Appendix 1.

At the time of writing, 136 UK organisations have voluntarily achieved this accreditation and the turnover of this sector is estimated at
around £300 million. The data in this report was provided by 20 companies with an estimated annual turnover of £110 million, or approximately 36% of the sector.

This data, the analysis and the drafting of this report has been provided free of charge and has been compiled as a joint effort by both ATAC and NORAC. Information on the data analysis can be found in Appendix 1.

The authors of this report wish to emphasise that the data has been anonymised to prevent the identification of sites or clients. Secondly, the data has been provided by UKAS accredited IBs that are typically engaged by larger public and private sector clients who are more compliance-conscious and aware of the regulatory requirements.

This information is therefore largely reflective of a best-case scenario and may not be representative of all property portfolios or sectors.
The data analysed in this report was collected over a six-month period from October 2021 to March 2022 and during this period:

- 128,761 sites were inspected
- 1,016,783 data points were recorded
- 710,433 positive asbestos items were noted

This report presents data in the following specific areas to present a picture of asbestos compliance within UK buildings.

- the damage (or condition) rating of the Asbestos Containing Materials (ACM) (Findings – Part 1)
- whether the identified ACM would constitute licensed and non-licensed removal work (Findings – Part 2)
- the distinction between domestic and non-domestic premises (Findings – Part 3)
- the proportion of asbestos which is being reinspected (Findings – Part 4)

Given that there has been 20 years of the HSE’s current asbestos management framework, the data shows that the amount of asbestos
AN OVERVIEW

within the UK’s property portfolio is significantly higher than expected and the overall condition of the material is poorer than anticipated.

What is also implicit in the data is that even after 20 years of the Duty to Manage, there are still many new surveys being commissioned. This either indicates a lower level of compliance than previously thought, or the failure to retain previous survey reports or a lack of confidence in the quality of historic surveys.
During the period to which the report relates, a total of 128,761 sites were inspected. These inspections were for a range of purposes and include management surveys, refurbishment surveys and demolition surveys as well as the re-inspection of previously identified or presumed asbestos materials.

**NUMBER OF ASBESTOS ITEMS**

Across the 128,761 sites, there are a total of 1,016,783 records which include negative samples, positive asbestos items and presumptions made according to the HSG264 method.

Of this total number of records, 710,433 items were designated as being positive asbestos either by analysis or presumption.

**NUMBER OF SITES WITH ASBESTOS**

Of the 128,761 sites inspected, 100,660 were found to contain asbestos containing materials (ACM). This equates to 78% which is broadly in line with the reported number of schools that are estimated to contain asbestos.³

**CONDITION OF ASBESTOS**

The number of asbestos items (710,433) have been identified in terms of their condition according to the HSE’s criteria.⁴

The HSE publication Asbestos: The survey guide (HSG264), provides the scoring criteria to be used during surveys to assess the potential for fibre release. In this section of the report, we will focus on the damage score; (see extract from HSG264, table 2).

**TABLE 1: CONDITION OF ASBESTOS**

<table>
<thead>
<tr>
<th>Total No. Asbestos Items</th>
<th>Good Condition Score - 0</th>
<th>Low Damage Score - 1</th>
<th>Medium Damage Score - 2</th>
<th>High Damage Score - 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>710,433</td>
<td>202,821</td>
<td>459,027</td>
<td>22,819</td>
<td>25,766</td>
</tr>
</tbody>
</table>

Source: ATAC and NORAC, 2022

**TABLE 2: HSE CRITERIA FOR CONDITION OF ASBESTOS**

<table>
<thead>
<tr>
<th>Extent of damage/deterioration</th>
<th>Score</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>Good condition: no visible damage.</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>Low damage: a few scratches or surface marks, broken edges on boards, tiles etc.</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>Medium damage: significant breakage of materials or several small areas where material has been damaged revealing loose asbestos fibres.</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>High damage or delamination of materials, sprays and thermal insulation. Visible asbestos debris</td>
</tr>
</tbody>
</table>

The law is clear that asbestos should be properly maintained or safely removed (CAR Regulation 4 (9b)).

The following extract from HSG264 (paragraph 2) also states,

“Where asbestos materials are in good condition and unlikely to be disturbed, they do not present a risk. However, where the materials are in poor condition or are disturbed or damaged, asbestos fibres are released into the air, which, if breathed in, can cause serious lung diseases, including cancers.”

Any Asbestos Containing Material in a less than good condition represents a risk to occupiers.

Of the 710,433 asbestos items, 507,612 (71%) were recorded as being damaged, whether low, medium or high damage. This equates to 81,667 (63%) of all sites visited.

Only 29% of items (202,821) were recorded as being in good condition.

Further analysis shows 48,583 (7%) of ACM were recorded as having either medium or high damage and are therefore showing the highest degree of risk.
Within the data it has been possible to differentiate between materials that are likely to require removal by a licensed asbestos contractor and those that come under the definition of “non-licensed” work.

Although licensing is risk-based and not dependent on the actual material, it is generally regarded that sprayed coatings, thermal insulation, and asbestos insulating board (AIB) are the main licensed products.

In total, 157,940 items (22%) are in these three product groups and are therefore likely to require an asbestos removal licence to work on them.

<table>
<thead>
<tr>
<th>No Items</th>
<th>No Sites</th>
<th>Extent of Damage 0</th>
<th>Extent of Damage 1</th>
<th>Extent of Damage 2</th>
<th>Extent of Damage 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Licensed</td>
<td>157,940</td>
<td>32,814</td>
<td>37,311</td>
<td>91,228</td>
<td>10,054</td>
</tr>
<tr>
<td>Non-Licensed</td>
<td>552,493</td>
<td>91,332</td>
<td>165,510</td>
<td>367,799</td>
<td>12,765</td>
</tr>
</tbody>
</table>

Source: ATAC and NORAC, 2022

Purely focusing on damaged licensable asbestos (scoring 1, 2 or 3), the data shows that these were found in 24,791 sites.
HSE have recently reported to the industry group, Asbestos Network, that the number of notifications for licensable work has decreased in the previous 12 months from around 30,000 to 27,000.

Assuming notifications are being made on a whole site basis and not per item basis and given that the figures in Table 3 are for a six-month period only, this would therefore suggest that notifications are not keeping pace with the discovery of damaged ACM.
This part of the analysis looks at the distinction between domestic and non-domestic premises. This differentiation is recorded at the time of the survey and provides a view on the state of asbestos within UK homes.

The vast majority of the housing data (around 99.5%) of data relates to premises controlled by registered social landlords such as housing associations and local authorities. Conversely, it is estimated that less than 0.5% of surveys were undertaken for private individuals or landlords.

Of the total number of 128,761 sites for which data was provided, domestic premises accounted for 94,116 sites, or 73% of the total. Of these 80,731 sites (86%) contain some form of ACM. And a total of 389,700 asbestos items were recorded in these 80,731 sites (nearly five occurrences of ACM per property).

| TABLE 4: ACM ITEMS AND EXTENT OF DAMAGE – DOMESTIC PREMISES, LICENSED AND NON-LICENSED |
|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|
|                                          | No Items | No Sites | Extent of Damage 0 | Extent of Damage 1 | Extent of Damage 2 | Extent of Damage 3 |
| Licensed                                | 29,778   | 15,210   | 12,332           | 13,528            | 1,771            | 2,147           |
| Non-Licensed                            | 359,922  | 65,521   | 125,011          | 225,596           | 6,836            | 2,479           |

Source: ATAC and NORAC, 2022
Approximately 16% of domestic properties contain licensed asbestos materials and almost 44% of the occurrences showed evidence of damage, i.e. a score of between 1 and 3 based on the HSG 264 criteria.

The presence of asbestos within the housing sector is significant as this accounts for 22% of the licensed and 60% on the non-licensed ACM identified. This is despite the fact that domestic premises are exempt from the Duty to Manage requirements.

The Regulator of Social Housing has identified that Registered Social Landlords (RSLs) in the UK provide approximately 4.4 million units of housing stock as of 2020. Of this total, it is estimated around 3 million of these properties were built prior to 1985 and hence could contain asbestos insulating board (AIB) and other licensable products.

Using the numbers in Table 3 above, nearly 60% of licensable ACM found in domestic premises were found to be damaged in some way. This points to a wider issue of effectively identifying and managing asbestos in domestic premises as they are out of the scope of the Duty to Manage.

From the data and further information provided by the survey participants it was estimated that less than 0.5% of the surveys undertaken of domestic properties were of privately owned and rented accommodation. The lack of surveys and management and regulation in the domestic sector is concerning given the size a scale of the work to domestic properties that are needed on the road to Carbon Net Zero.
Analysis of the data shows 280,453 items have been subject to re-inspection. It would be reasonable to conclude that following the initial asbestos survey, and in accordance with the requirements of the Duty to Manage, any ACM in poor condition should have been either removed completely or treated to reduce the damage score.

Approximately 32% of re-inspected items were licensable ACM and of those 75% had some level of damage; and so only 25% were found to be in a good condition.

Almost 9% of items recorded a damage score of 3, i.e. high levels of damage or delamination.
Given that these are re-inspections, we could either conclude that the items were in good condition at the time of the original survey and have deteriorated, or that the items were in a less than good condition and the duty holder has failed to undertake any action. Either approach would suggest that overall asbestos management in these premises is failing.

The same is also true for non-licensed ACM where only 30% yielded a damage score of zero.
The data that has been collated has provided a snapshot of asbestos materials in the UK at a fixed point in time. With some minor changes it may be possible to obtain greater insight from the data to enable the development of better regulation and guidance.

**NATIONAL DATABASE**

Reviewing the data has identified a wide range of definitions and terminology that is present not only between organisations but also within organisations. Considerable effort has been expended in rationalising the data for this exercise and the same would be necessary if any national database was to be developed.

The authors of this report suggest that before any work is undertaken to develop a national asbestos database, an effort is made to standardise the data collection and reporting terminology between the existing database systems.

**PROPERTY TYPES**

The data has identified differences in the way property types are recorded. This is most clearly shown in the differences in domestic and communal area collection methodologies.

What is not possible within the data is to segment properties by type or function.
We would therefore suggest that all accredited Inspection Bodies and software providers consider the expansion and clear definition of the property types listed to include for example the following:

- Schools
- Other Education (Universities, HE Colleges)
- Healthcare premises
- Other public sector premises
- Domestic Properties (Affordable Homes)
- Owner occupied properties
- Communal areas of all domestic properties
- Infrastructure
- Retail Premises
- Commercial Premises
- Industrial Premises
- Marine and other vessels

We would also suggest that asbestos removal work is identified in these sectors to determine where efforts are being made to mitigate future asbestos risks. This information could be gathered from either the HSE notifications from licensed contractors or Certificates of Reoccupation issued by the UKAS accredited air testing laboratories.

**REPEATING THE EXERCISE**

It is clear that little historical data is available on the extent of the asbestos legacy facing the UK. The authors are in discussions with the organisations that participated to provide this same data on an annual basis.

It would also be of benefit to expand the dataset by involving more companies in the repeat exercise.
APPENDIX 1

KEY POINTS TO NOTE

UKAS ACCREDITATION

UKAS is the national accreditation body for the United Kingdom, appointed by the government, to assess organisations that provide certification, testing, inspection, and calibration services.

UKAS is independent of the government and its status is recognised by a Memorandum of Understanding to allow it to assess asbestos survey companies against the ISO 17020 standard which outlines the requirements for impartiality, integrity, and competency of those IBs.

The process of accreditation is onerous and comprises an application and initial assessment that can take up to 12 months to complete in order to achieve accreditation. The accredited organisations undertake strict competency assessments of staff and have robust internal quality control processes which are assessed annually by UKAS. They are also required to hold minimum levels of professional indemnity insurance.

With this data only being collected from UKAS accredited inspection bodies, it can be demonstrated that the data meets, if not exceeds, the requirements imposed by HSE.

The data used in this report was provided without charge by members of the two asbestos trade associations ATAC and NORAC.
All of those who provided data are UKAS accredited asbestos survey companies and as such exceed the requirements stipulated by the HSE in terms of quality assurance, competency and training.

UKAS accredited asbestos inspection bodies have an estimated turnover of around £300 million. The data used in this report was collected from IBs with an estimated turnover of £110 million. This suggests that the headline figures contained in the report - number of buildings containing asbestos, number of sites with damaged ACM - could be almost three times higher.

It should also be noted that a large number of asbestos surveys are carried out by non-accredited organisations or individuals. The HSE does not maintain a register of these and so the extent of the issues raised in this report could be significantly higher than simply multiplying by a factor of three.
THE DATA SET

The data relates to asbestos inspections conducted by the participants over a six-month period between 1st October 2021 and 31st March 2022.

The final data set contains a total of 1,048,104 lines of data from 128,761 sites. The data was from a mixture of property sectors and survey types.

This data has typically been extracted from databases, with their own protocols around data entry, and some has come from databases where large amounts of free text have been used. Before undertaking the analysis contained in this report the data was reviewed and any ambiguous, conflicting, or incomplete data was removed.

The data is focused on the material assessment elements of the HSG264 algorithm developed by HSE, which deals with the type of asbestos, the material it is contained in and the condition and treatment of the material.

In total 31,321 lines of data were rejected as either incomplete, containing errors or from non-traceable methodologies such as analysis results derived from “delivered” samples or soil samples.
To further assist with the analysis, an exercise in rationalising the data was undertaken. For example, 17 different descriptors were used for Refurbishment Surveys, and these have been rationalised into one group.

Over 3,000 different descriptors for product types were recorded as some of the terms used included a longer description of the item, for example:

- blue floor tile, brown floor tiles
- insulation board door header, insulating board door header, AIB door header

These terms have been rationalised to 17 product types to reflect the nature of the ACM.

The authors of the report are in contact with the software providers of the main asbestos databases to take on board the lessons learned during the processing of the data. This will permit this exercise to be run again with improvements to the data, and therefore the results, to identify any changes with regards to the identification and therefore management of asbestos in UK buildings.
This report has been produced following the Department of Work and Pensions 2022 inquiry into the Health and Safety Executives management of asbestos.

The report is a summarised analysis of the results of asbestos surveys conducted by a number of accredited surveying organisations between 1st October 2021 and the 31st March 2022.