



Briefing 11/42 August 2011

# 'Asbestos Consultation / Carbon Monoxide boiler emissions'

To: All contacts in England, Wales, Scotland and Northern Ireland

## Key issues

Consultation to take place on asbestos regulations  
Death from carbon monoxide poisoning highlights problem of factory settings on boilers  
Landlords to remain aware of new developments and review procedures accordingly

### 1. Introduction

Two recent incidents have highlighted the need for social landlords to remain aware of potential changes to legislation and putting in place preventative measures to avoid serious accidents. The first addresses potential changes to regulations regarding asbestos and the second involves the circumstances surrounding valve settings on a gas boiler leading to a death from carbon monoxide poisoning.

### Asbestos consultation

### 2. Background

Medical conditions linked to exposure to asbestos are widely known and considered by public service providers when addressing health and safety issues. Procedures to deal with the existence of asbestos in buildings being demolished or refurbished are in place and good practice encourages managers to ensure operatives are regularly reminded of the perils of not following them.

HSE advice notes that asbestos can only pose a risk to health if the asbestos fibres become airborne and are then inhaled. Therefore, most asbestos materials pose little risk unless they are disturbed allowing the fibres to be released into the air. Inhalation of asbestos fibres can lead to serious diseases such as lung cancer, mesothelioma (a cancer of the linings of the lungs - the pleura, or lower digestive tract - the peritoneum) and asbestosis (a chronic fibrosis of the lungs). Many cases of these diseases occurring now are a result of exposure in industries that used asbestos extensively in the past.

However, asbestos was installed in many buildings meaning that a wider range of people may still be exposed and these particularly include building and maintenance workers. The Control of Asbestos Regulations 2006 brought together three previous sets of Regulations covering the prohibition of asbestos,

the control of asbestos at work and asbestos licensing together with a 'duty to manage asbestos' for those responsible for non-domestic premises.

The annual number of mesothelioma deaths has increased considerably over the period for which statistics are available, reaching 2249 deaths in 2008, the latest year for which data are available, compared with 153 in 1968. The expected number of deaths amongst males is predicted to increase to a peak of 2038 (90% prediction interval: 1929 to 2156) in the year 2016. Lung cancer deaths caused by asbestos are clinically indistinguishable from those caused by other agents such as tobacco smoke which means the number of cases cannot be determined by direct counting and must therefore be estimated. Although these are estimates, the HSE think the current annual total number of asbestos-related cancer deaths is around 4000.

Based on an analysis of the last recorded occupation for mesothelioma deaths during 2002 - 2005, the ten occupations found to have the highest risk of mesothelioma for males were:-

- Carpenters
- Plumbers
- Electricians
- Labourers in Other Construction Trades
- Metal Plate Workers
- Pipe Fitters
- Construction Operatives
- Managers in Construction
- Construction Trades and
- Energy Plant Operatives.

The occupations most frequently recorded on deaths certificates of men dying from mesothelioma today include many that are associated with construction and building maintenance trades, highlighting the important role of past exposures to "end users" of asbestos containing materials in the building industry.

### **3. European Union Directive**

On the 16th of February 2011 the European Commission issued a press release stating that they had asked the UK to change provisions that exempt some maintenance and repair activities from the application of the EU directive<sup>1</sup> on protection of workers from asbestos. This decision was taken as a result of a complaint made by the Asbestos Removal Contractors Association (ARCA) in 2006 to the Secretary General of the European Commission, regarding the transposition of certain Articles of The Asbestos Workers Protection Directive<sup>2</sup> into UK law.

A European Union directive requires member states to achieve a particular result without dictating the means of achieving that result. When the requirements of Article 3(3) (a) and (b) were transposed into UK law, via Regulation 3 of the Control of Asbestos Regulations 2006 (CAR 2006), it was ARCA's opinion that the UK legislation did not achieve the particular result that the directive called for.

The European Commission reported that after a thorough analysis of ARCA's complaint, the Commission had decided to proceed with two of the points raised by ARCA, namely those concerning article 3(3) (a) and (b) of the directive, regarding the terms "in which only non-friable materials are handled" and "without deterioration of non degraded" materials. These words have been omitted during the transposition of the directive into Regulation 3(c) of CAR 2006. The directive specifies that when it is clear from the results of a risk assessment that the exposure limit will not be exceeded in the air of the working area certain Articles relating to notification of the work and medical surveillance and health records can be waived.

The directive Articles do not allow these articles to be waived when short non continuous maintenance activities are carried out on friable asbestos material, or when asbestos materials, which are firmly linked in a matrix are to be removed when the material is degraded prior to work starting, or when the asbestos

material will be deteriorated during the removal process, however CAR 2006 does. This is the reason that ARCA believe that the implementation of the directive by the UK does not achieve the result that the directive called for. In practice very few asbestos materials can be removed without deteriorating the material during the removal process.

In ARCA's opinion, by not transposing the directive correctly the UK have significantly widened the scope of the asbestos work activities that can be carried out in the UK without the need for notification of the work and without the need for medical surveillance and health records being kept for the workers. The exact wording of Articles 3(3) (a) and (b) of the directive have been adopted word for word by other EU states, therefore workers in the UK do not currently have the equivalent legal protection as workers in other EU states who carry out asbestos work.

On the 17th February 2011 the EU sent a Reasoned Opinion to the UK, the UK has two months from that date to bring its legislation into line with EU Law. Otherwise, the Commission may decide to refer the UK to the EU's Court of Justice.

It is important to note that asbestos licensing is not a requirement of the directive or European law. Currently all asbestos work in the UK requiring notification, medical surveillance and the keeping of exposure records is aligned to the asbestos licensing regime. Therefore if the UK authorities decide to comply fully with Article 3, as the European Commission have requested, this does not necessarily mean that all the asbestos work where notification, medical surveillance and the keeping of exposure records are not exempted will necessarily have to be licensed.

#### **4. Government response**

The government will need to look at the following issues

- Notification to the responsible national authority about asbestos works
- Health assessments for asbestos workers prior to works and new assessments every 3 years as long as exposure continues
- Keeping a register of workers who are or may be exposed to asbestos

Chris Grayling, Employment Minister, stated on 19<sup>th</sup> July 2011 that in compliance with its statutory duty under Section 50(3) of the Health and Safety at Work, etc Act 1974, HSE will be undertaking a public consultation on its proposals to implement Article 3(3)(a) of EU Directive 2009/148/EC. The consultation on proposed legislative changes, which will be held shortly, will provide an opportunity for interested parties to make representations. He also stated that it is planned that the UK will fully implement article 3 of EU directive 2003/18/EG into domestic legislation in April 2012.

#### **5. APSE comment**

APSE welcomes the progress made by the Asbestos Removal Contractors Association (ARCA) in this matter and as industry experts their views are not to be dismissed.

Although some may claim that health and safety legislation is a bureaucratic blockage to working practices, the figures on deaths as a result of asbestos exposure highlight the benefits of the legislation. Furthermore it appears that European regulations have not been transcribed as effectively as they might have been and APSE welcomes the extra protection that proposed changes should bring.

Public service providers will have to be aware of changes and build appropriate alterations into procedures. Education and training covering health and safety issues remain vital for all operatives and local authorities will be required to remain as engaged with this topic as ever.

Clearly the health of operatives is the primary concern and the focus will be on prevention. Damages claims are common and awards upwards of £100,000 have been made. This will also be a consideration for employers.

## **Carbon Monoxide boiler emissions**

### **6. Context**

A Coroner's court verdict in June 2011 highlights the need for landlords to remain vigilant when maintaining gas appliances. Following the death of a tenant of a London based housing association following a carbon monoxide leak from the boiler in the flat below her home, the issue of factory settings on boiler gas control valves without a requirement for further checks to be carried out on installation has again arisen.

The Coroner wrote to the Department for Business, Innovation and Skills and the Health and Safety Executive after the inquest to highlight the circumstances in this incident and hopefully ensure the same do not recur. The condensing boiler, which had a full set of gas safety certificates, is a common type installed in millions of homes, a Gloworm 24CXIS model manufactured by Valliant Group UK limited.

There were a number of highly unusual circumstances that lead to the carbon monoxide entering the upstairs flat. An expert gas engineer found that gases had travelled up from a flue vent below the tenant's flat, entering the bedroom through a trickle vent above the bedroom window. The level of carbon monoxide being produced from the boiler was almost four times greater than the amount considered lethal. The block of flats where the death occurred had only been completed a few months before the death and it was thought that all 40 flats in the block are fitted with the same boiler. The engineer noted that it was highly unusual for carbon monoxide gases re-entering a property having been expelled from a different one.

The control valves had been pre-set in the factory before the boilers were sent out to be installed with no requirement for further checks to be carried out on installation. Without a requirement, it was uncommon for further tests to take place. An investigation revealed that the "air-gas ratio" valve on the tenant's own boiler was incorrectly set though no evidence was found of high carbon monoxide emissions from that boiler.

It was noted that gas appliance regulations pre-dated the introduction of condensing boilers and as such a review is needed. Condensing boilers have been installed in many social properties.

The Coroner noted that the 1998 safety guidelines were out of date and did not address the use of condensing boilers, such as the type fitted in the flat in question. He also noted that there was testing available that, if carried out at the point of installation, would seek to detect unsafe emissions. He decided to make a recommendation under Rule 43 of the Coroners Rules 1984 that regulations should require gas flue emissions to be tested for carbon monoxide using an Electronic Combustion Gas Analyser on installation and on every subsequent service.

### **7. Recommendations**

The Coroner noted that the Whitehall department and the HSE should consider if present safeguards are adequate and suggested the government should require checks to be carried out on installation. Recommendations could include, for example, use of tamper-proof valves or sensors installed that would detect faulty combustion and perhaps turn off the boiler if dangerous levels of carbon monoxide are produced as well as the use of a gas analyser as noted above.

### **8. APSE comment**

This kind of incident inevitably makes landlords sit up and take notice, review their procedures and make necessary alterations and that is no bad thing. All measures must be taken to ensure such unfortunate events are kept to a minimum and social landlords have a good record in this area. However there will

always be circumstances which have not been foreseen and this appears to be one such case. The fact that emissions re-entered a property after having been emitted from a lower flat is very unusual but the main issue is why the emissions from the boiler in the flat below were so dangerous in the first place.

The issue of factory settings is a valid one for landlords to address and procedures should be in place to check and alter these prior to installation where necessary. It is not reasonable to fit boilers with factory settings without having checked them prior to use. Equally adequate checks need to be taken to ensure they have not been altered by tenants either accidentally or otherwise between annual gas safety checks.

Although a lot of work has gone into publicising the dangers of carbon monoxide poisoning, landlords must continue to educate their tenants.

Smoke alarms are commonly installed in social housing properties. Landlords should be considering adding carbon monoxide alarms to their investment plans as part of addressing the health and safety of their tenants.

### **Relevant APSE events**

APSE Seminar '**Health and Safety across the Services**' - Hilton Hotel, York, 7 October 2011

View the agenda [here](#)

APSE Seminar '**Housing, Building Maintenance and Construction Seminar – The practicalities of providing and improving a building maintenance service**' - Hilton Hotel, York, 6-7 October 2011

View the agenda [here](#)

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