Manchester Hostel owners sentenced over asbestos failings

Two family run companies have been fined after admitting health and safety failings at a site in Manchester, where they were carrying out a basement conversion.

Manchester Crown Court heard how Hatters Taverns Limited had appointed sister company Hatters Hostel Limited as the main contractor for the basement conversion beneath a hostel at 50 Newton Street, Manchester.

The project involved the full strip out and refurbishment of the basement, a former restaurant unit, into a bar venue.

An unannounced visit by the Health and Safety Executive (HSE) was conducted to inspect the ongoing refurbishment works. During the visit it was discovered there had been no asbestos survey carried out before tradesmen started stripping out the majority of the space.

Hatters Taverns Limited of 50 Newton Street Manchester pleaded guilty to breaching Regulation 4(3) of the Control of Asbestos Regulations 2012 and was fined £10,000.

Hatters Hostel Limited of 56-60 Mount Pleasant, Liverpool pleaded guilty to breaching Regulation 5(a) of the Control of Asbestos Regulations 2012 and was fined £24,000 and ordered to pay the combined costs for both defendants of £10,232.50.

Speaking after the hearing HSE inspector Matt Greenly said after the case: “Both Hatters Hostel and Hatters Taverns have failed in their duty to protect their workers, subcontractors and visitors to his site from harm. Asbestos related diseases are currently untreatable and claim the lives of an estimated 4000 people per year in the UK.

“The requirement to have a suitable asbestos survey is clear and well known throughout the construction industry. Only by knowing if asbestos is present in any building before works commence can a contractor ensure that people working on their site are not exposed to these deadly fibres.

“The cost of an asbestos survey is not great but the potential legacy facing anyone who worked on this site is immeasurable. Exposure to asbestos fibres can potentially cause life shortening diseases in the long term and Hatters Hostel Limited and Hatters Taverns Limited should have taken more care to protect workers from a totally preventable exposure. This case sends a clear message to any company that it does not pay to ignore well known risks on site.”

Notes to Editors:

1. The Health and Safety Executive (HSE) is Britain’s national regulator

for workplace health and safety. It aims to reduce work-related death, injury and ill health. It does so through research, information and advice, promoting training; new or revised regulations and codes of practice, and working with local authority partners by inspection, investigation and enforcement. www.hse.gov.uk

2. More about the legislation referred to in this case can be found at:

www.legislation.gov.uk/

3. HSE news releases are available at http://press.hse.gov.uk
4. More information about asbestos can be found at: http://www.hse.gov.uk/asbestos/index.htm

Journalists should approach HSE press office with any queries on regional press releases.

Electrician fined after apprentice left with life changing injuries

A Birmingham electrician has been ordered to carry out unpaid work in the community after his trainee fell three and a half metres through a plasterboard ceiling.

Birmingham Magistrates' Court heard that the apprentice electrician, Soheil Afrapour, spent 23 days in hospital after suffering head injuries. He was installing wiring above the false ceiling for Mr Soheil Alipour.

A Health and Safety Executive (HSE) investigation found there was no proper planning for work at height and Alipour did not fulfil his duty of care.

Soheil Alipour of Selly Oak, Birmingham, pleaded guilty to breaching Work at Height Regulations 9(2) 2005, was given 120 hours unpaid Community work and ordered to pay full costs of £1152.24.

HSE Inspector Gareth Langston said: "It's important that employers put the safety of their workers, especially young inexperienced apprentices, at the forefront of their plans and consider precautions when working at height. This incident could have been prevented if there was proper planning in place using boards above or scaffolding below."

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New addition to Legionnaires' FAQ page

HSE is only able to provide generic information on health and safety issues and cannot give specific advice on individual cases as the circumstances of each individual situation will be different. Ultimately only the courts can give an authoritative interpretation of the law when considering the application of the Health and Safety at Work Act (HSWA) and the Management of Health and Safety at Work Regulations (MHSWR).

You can find more detailed guidance on your duties in the Approved Code of Practice and guidance on regulations *Legionnaires' disease: The control of legionella bacteria in water systems (L8)*. This contains practical guidance on how to manage and control the risks in your system. Following the guidance is not compulsory and you are free to take other action, but if you do follow the guidance you will normally be doing enough to comply with the law.

As a landlord, what are my duties?

The legal duty for landlords who provide residential accommodation to consider, assess and control the risks of exposure to Legionella to their tenants is not new. This requirement stems from the Control of Substances Hazardous to Health Regulations 1989; Section 3(2) of the Health and Safety at Work Act 1974 makes provision for the legislation to apply to landlords of both business and domestic premises. All water systems require an assessment of the risk which they can carry out themselves if they are competent, or employ somebody who is.

In most residential settings, a simple assessment may show that the risks are low and no further action may be necessary. (An example of a typical lower risk situation may be found in a small building (eg housing unit) with small domestic-type water systems, where daily water usage is inevitable and

sufficient to turn over the entire system; where cold water is directly from a wholesome mains supply (no stored water tanks); where hot water is fed from instantaneous heaters or low volume water heaters (supplying outlets at 50 °C); and where the only outlets are toilets and wash hand basins). If the assessment shows the risks are low and are being properly managed, no further action is needed but it is important to review the assessment regularly in case anything changes in the system.

Simple control measures can help control the risk of exposure to legionella such as:

- flushing out the system prior to letting the property
- avoiding debris getting into the system (eg ensure the cold water tanks, where fitted, have a tight fitting lid)
- setting control parameters (eg setting the temperature of the calorifier to ensure water is stored at 60°C)
- make sure any redundant pipework identified is removed.

Tenants should be advised of any control measures put in place that should be maintained eg not to adjust the temperature setting of the calorifier, to regularly clean showerheads and to inform the landlord if the hot water is not heating properly or there are any other problems with the system so that appropriate action can be taken. If there are difficulties gaining access to occupied housing units, appropriate checks can be made by carrying out inspections of the water system, for example, when undertaking mandatory visits such as gas safety checks or routine maintenance visits.

Where showers are installed, these have the means of creating and dispersing water droplets which may be inhaled causing a foreseeable risk of exposure to legionella. However, if used regularly (as in the majority of most domestic settings) the risks are reduced but in any case, tenants should be advised to regularly clean and disinfect showerheads. Instantaneous electric showers pose less of a risk as they are generally coldwater-fed and heat only small volumes of water during operation.

It is important that water is not allowed to stagnate within the water system and so there should be careful management of dwellings that are vacant for extended periods (eg student accommodation left empty over the summer vacation). As a general principle, outlets on hot and cold water systems should be used at least once a week to maintain a degree of water flow and minimise the chances if stagnation. To manage the risks during non-occupancy, consideration should be given to implementing a suitable flushing regime or other measures such as draining the system if it is to remain vacant for long periods.

For more detailed information on what the law does and does not require of landlords in relation Legionella control, please visit the landlord's responsibilities page.

Risk assessment

Who can undertake the risk assessment for legionella?

As an employer or a person in control of premises, you must appoint person or persons responsible for helping you manage your health and safety duties, e.g. take responsibility for managing risks. A competent person is someone with the necessary skills, knowledge and experience to manage health and safety, including the control measures. You could appoint one, or a combination of:

- yourself
- one or more workers
- someone from outside your business

If you decide to employ contractors to carry out your risk assessment or other work, it is still the responsibility of the competent person to ensure that the work is carried out to the required standards. Remember, before you employ a contractor, you should be satisfied that they can do the work you want to the standard that you require. There are a number of external schemes to help you with this, eg A Code of Conduct for service providers.

How do I carry out a Legionella risk assessment?

The purpose of carrying out a risk assessment is to identify and assess any risks in your water system. The responsible person should understand your water systems and any associated equipment, in order to conclude whether the system is likely to create a risk from exposure to legionella, and should be able to identify whether:

- water is stored or re-circulated as part of your system
- the water temperature in some or all parts of the system is between 20–45 °C
- there are sources of nutrients such as rust, sludge, scale and organic matters
- conditions are present to encourage bacteria to multiply
- it is possible for water droplets to be produced and, if so, whether they could be dispersed over a wide area, eg showers and aerosols from cooling towers
- it is likely that any of your employees, residents, visitors etc are more susceptible to infection due to age, illness, a weakened immune system etc and whether they could be exposed to any contaminated water droplets

Your risk assessment should include:

- management responsibilities, including the name of competent person and a description of your system;
- potential sources of risk;
- any controls in place to control risks;
- monitoring, inspection and maintenance procedures;

- records of the monitoring results, inspections and checks carried out;
- arrangements to review the risk assessment regularly

If you decide that the risks are insignificant, your assessment is complete. You may not need take any further action at this stage but you should review the assessment regularly in case anything changes in your system.

If I am not storing hot or cold water in my system, do I need to carry out a risk assessment?

Yes. There may be other factors within your system that increase the risks of legionellosis, eg deadlegs, showerheads and/or long runs of pipe work containing warm water. A risk assessment should also consider anyone who could be potentially exposed to any legionella bacteria in your system, and particularly groups that are at a higher risk of contracting legionellosis. However, once you have completed your risk assessment you may decide that the risks are insignificant. If you do, you need take no further action other than to review the assessment regularly in case anything changes in your system.

Appointing a responsible person

Who can be appointed as the 'responsible' person?

The responsible person will take day-to-day responsibility for managing the control of any identified risk from legionella bacteria. Anyone can be appointed as the responsible person as long as they have sufficient authority, competence, skills and knowledge about the installation to ensure that all operational procedures are carried out in a timely and effective manner and implement the control measures and strategies, ie they are suitably informed, instructed, trained and assessed. They should be able to ensure that tasks are carried out in a safe, technically competent manner.

If a dutyholder is self-employed or a member of a partnership, and is competent, they may appoint themselves. The responsible person should be suitably informed, instructed and trained and their suitability assessed. They should also have a clear understanding of their duties and the overall health and safety management structure, and policy in the organisation.

Controlling Legionella

How do I control the risks from legionella in my water system?

The key point is to design, maintain and operate your water services under conditions that will either prevent or adequately control the risk from legionella bacteria. It is important that you either have, or have access to, competent help to fulfil these obligations.

If you identify a risk that you are unable to prevent, you must introduce

appropriate controls. You should introduce a course of action that will help you to control any risks from legionella by describing:

- your system and its component parts eg developing a schematic diagram
- who is responsible for carrying out the assessment and managing its implementation
- the safe and correct operation of your system
- what control methods and other precautions you will be using
- what checks will be carried out to ensure risks are being managed and how often

You should where appropriate:

- ensure that the release of water spray is properly controlled
- avoid water temperatures and conditions that favour the growth of legionella and other micro-organisms
- ensure water cannot stagnate anywhere in the system by keeping pipe lengths as short as possible or by removing redundant pipe work
- avoid materials that encourage the growth of legionella (The Water Fittings & Materials Directory references fittings, materials, and appliances approved for use on the UK Water Supply System by the Water Regulations Advisory Scheme)
- keep the system and the water in it clean
- treat water to either control the growth of legionella (and other microorganisms) or limit their ability to grow

Testing/monitoring Legionella

Who can be appointed to test or monitor legionella?

Testing of water quality may be carried out by a service provider, such as a water treatment company or consultant, or by the operator, provided they are trained to do so and are properly supervised. The type of test required will depend on the nature of the water of the system. HSG274 Legionnaires' disease Technical guidance provides further details for both evaporative cooling systems and hot and cold water systems.

How do I test or monitor legionella from my water system?

Where monitoring for legionella is considered appropriate, the sampling method should be carried out in accordance with BS7592 and the biocide, if used, neutralised where possible. Water samples should be tested by a UKAS-accredited laboratory that takes part in a water microbiology proficiency testing scheme such as that run by Public Health England. The laboratory should also apply a minimum theoretical mathematical detection limit of <= 100 legionella bacteria per litre of sample for culture-based methods.

How often should I test water for Legionella?

It depends on the system that you have and the outcome of your risk assessment. For open systems, such as cooling towers, evaporative condensers

and spa pools etc, routine testing should be carried out at least quarterly. However, there may be circumstances were more frequent sampling may be required.

For hot and cold water systems, which are generally enclosed, i.e. not open to the elements and significant contamination in the same way as cooling towers, microbiological monitoring is not usually required. But there may be circumstances where testing for legionella is necessary eg where there is doubt about the efficacy of the control regime or where recommended temperatures or disinfection concentrations are not being consistently achieved . Further guidance is available in HSG274 Part 2

How do I interpret legionella test results?

Consider what the results mean in the context of your water system. Your subsequent specific actions will depend on your risk assessment. Further information about what action to take when certain levels of legionella are identified can be found in HSG274 Part 1 (paras 1.114 – 1.129 and table 1.10) for evaporative cooling systems; and HSG274 Part 2 (paras 2.119 – 2.125 and table 2.2) for hot and cold water systems.

Current HSE position on quantitative polymerase chain reaction (qPCR) in the management of legionella risks

HSG274 and HSG282 recommend routine legionella sampling be undertaken as part of the checks on the effectiveness of control regimes in cooling towers, evaporative condensers and spa pools, as well as in some hot and cold water systems and other risk systems.

BS 7592 and BS 6068 sampling and analytical culture by UKAS-accredited laboratories remain the gold standard methods for the detection of legionella in environmental samples.

However, legionella culture methods do have certain acknowledged disadvantages including:

- long incubation period;
- poor reproducibility;
- poor sensitivity;
- inability to detect viable but non-culturable cells; and
- inhibition due to competing microbial flora.

Sampling can also form an important part of public health investigations into cases and outbreaks of Legionnaires' disease. The disadvantages associated with the culture method, can impede or slow down these investigations.

Over the previous few years, there has been an increase in the use of the quantitative qPCR assay in public health investigations. With this assay, results can be obtained in 2 days rather than the typical 10 days for the culture method and consequently – this can deliver substantial time savings.

There are currently three key areas where HSE recognises the benefits and one key limitation of the use of the qPCR assay conducted to ISO 12869:2012, as an alternative to the traditional legionella culture-based methods:

Rapid detection of legionella bacteria – the high negative predictive value (NPV) of qPCR means that it is suitable for use as a negative screening tool to rapidly rule out potential sources, for example, in an outbreak situation, and to support public health investigators in prioritising resources.

Indication of the effectiveness of cleaning and disinfection – the high NPV of qPCR, means that negative qPCR results may be a useful indicator for the restarting of system implicated in the source of an outbreak following remedial actions, such as cleaning and disinfection.

Complementary tool for the rapid routine monitoring of legionella trends at dutyholder sites – it is important that data from such tests can be properly interpreted, to enable informed decisions on the effectiveness of control measures to be made by a competent person.

Interpretation of results – the results of positive qPCR samples are difficult to interpret, as the assay detects legionella DNA from both live and dead bacterial cells and the units of measurement for qPCR (genomic units/litre) are not directly comparable with the action and alert levels for culture (expressed in colony forming units) published in HSG274.

Use of a water treatment company

Do I have to use a water treatment company?

No. This may not be necessary, providing you have the competence, ie knowledge and skills to fulfil your health and safety duties, eg take responsibility for managing the control scheme. If you do, you should make reasonable enquiries to satisfy yourself of their competence in the area of work before you enter into any contracts for the treatment, monitoring, and cleaning of the system, and any other aspects of water treatment and control. An illustration of the levels of service to expect from service providers can be found in the Code of Conduct administered by the Legionella Control Association.

Cleaning and disinfecting water systems

Is it necessary to clean and disinfect my water system?

It is important to maintain the cleanliness of your water system. The mechanisms and frequency for doing this will depend on the system you have and whether cleaning or disinfecting is being done routinely or because of a problem identified during monitoring. The frequency and method of routine cleaning and disinfecting should be identified within your risk assessment. This will take account of factors such as whether the system is open or

closed, the type and level of contamination, and the population that could be exposed.

Specific risk systems

Evaporative cooling systems

I can't get the pack out, how do I show it is clean?

It will be necessary for you to demonstrate that the pack is clean, whether it is removed or not. There are a number of ways you can approach this and specific guidance is available in HSG274 Part 1 paras 1.91-1.92, Table 1.5, Figures 1.5 and 1.6 and paras 1.106-1.110.

Hot and cold water systems

Do all hot and cold water systems need an assessment, even lower risk systems?

All systems require a risk assessment, however not all systems will require elaborate control measures. A simple risk assessment may show that the risks are low and being properly managed to comply with the law. In such cases, you may not need to take further action, but it is important to review your assessment regularly in case of any changes in your system, and specifically if there is reason to suspect it is no longer valid. There is more information specifically for those in control of premises, eg landlords, in HSG 274 Part 2: Hot and cold water systems.

An example of a low risk situation may be found:

1. in a small building without individuals especially 'at risk' from legionella bacteria
2. where daily water usage is inevitable and sufficient to turn over the entire system
3. where cold water is directly from a wholesome mains supply (no stored water tanks)
4. where hot water is fed from instantaneous heaters or low volume water heaters (supplying outlets at 50 °C)
5. where the only outlets are toilets and wash hand basins (no showers)

How often do I have to check the temperature of my system?

That depends on the outcome of your risk assessment and the components of your system. For hot and cold water systems, advice is available in HSG274 Part 2 and the Hot and cold water table

In my care home I have a number of Thermostatic Mixing Valves(TMVs), what are the key issues?

TMVs are an important mechanism to prevent scalding in health and social care settings where, for a number of reasons, there are increased water

temperatures. A TMV will reduce the water temperature at the outlets to prevent scalding but the potential scalding risk should be assessed and controlled in the context of the vulnerability of those being cared for. The approach will depend on the needs and capabilities of the patients or residents. Where vulnerable people are identified and have access to showers or baths and the scalding risk is considered significant, TMV Type 3 are required. More information can be found in HSG220 '[Health and safety in care homes]' and on the [Scalding and burning webpage].

The reduction in the temperature of the outlet has the potential to increase risks of legionella bacteria growth. To manage this risk, the TMVs should be sited as close as possible to the point of use and flushed regularly. Further information about monitoring the temperature of the water at a TMV can be found in the [HSG274 Part 2 paras 2.74-2.76, and 2.163-2.165].

Spa pools

I have a spa pool – is there a risk from Legionellosis?

Spa pools are a significant risk of legionellosis if they are not maintained adequately. You can find guidance that is more detailed on your duties in [Management of Spa Pools – Controlling the Risks of Infection]

Other risk systems

How do I know if I am operating a water system that may be a risk from legionellosis?

Specific information on risk systems that may pose a risk from exposure to legionella bacteria is available in [HSG274 Part 3].

To identify the sources of risk in your water system, you must under take a risk assessment. The responsible person, should understand your water systems and any associated equipment. If you understand your water system, you will be able to establish whether it is at risk of exposure to legionella. Identify whether:

- water is stored or re-circulated as part of your system
- the water temperature in some or all parts of the system is between 20–45 °C
- there are sources of nutrients such as rust, sludge, scale and organic matters
- conditions are present to encourage bacteria to multiply
- it is possible for water droplets to be produced and, if so, whether they could be dispersed over a wide area, e.g. showers and aerosols from cooling towers
- it is likely that any of your employees, residents, visitors etc are more susceptible to infection due to age, illness, weakened immune system etc and whether they could be exposed to any contaminated water droplets

If you decide that the risks are insignificant, your assessment is complete. You need take no further action other than to review the assessment

periodically in case anything changes in your system.

Copper ionisation systems

Important information for users and suppliers of water treatment systems that use elemental copper for legionella control

The use of copper ionisation in legionella control

From 1 February 2013, the Biocidal Products Directive and the national Biocidal Products Regulations 2001 (which implement the Directive in Great Britain) no longer allowed the marketing and use of elemental copper as a biocide. HSE submitted an application for 'essential use derogation' to the EC to allow for the continued use of copper in Legionella control systems within the UK.

The Commission Decision granting the UK essential use derogation for the use of copper in legionella control in product types 2 (control of Legionella in water for human use, such as bathing and showering water) and 5 (control of Legionella in drinking water) was published in the Official Journal of the European Union on 15 February 2014. Companies wishing to place a biocidal product (or family of products) using copper on the UK market for product types have applied to HSE for an Essential Use Product Authorisation.

The Q&A below should help address any further questions you may have. The biocides helpdesk can give further advice about the biocidal use of elemental copper via email: biocides@hse.gov.uk and the HSE Biocides web site provides more details on the biocides directive. Further information about responsibilities to control the risk of exposure to legionella is available by email from COSHH.enquiries@hse.gov.uk.

Can I view the European Commission's decision on the 'essential use' derogation application?

The UK Competent Authority for biocidal products submitted an application for an essential use derogation for the placing on the market and use of copper for biocidal product-types PT02 and 05, in accordance with article 5 of Regulation (EC) No 1451/2007 and this was formally granted by the European Commission on 15 February 2014. The Commission formally published their decision in the Official Journal of the European Union on 15 February 2014.

What does an 'essential use' derogation mean for my system?

The favourable decision by the EC for the essential use derogation application allows for the continued use of elemental copper and the placing on the market of biocidal products containing copper whilst industry provides the data required under the Directive by a specified deadline.

What other legionella management systems are available?

HSE's guidance on the principles of legionella control and risk reduction options can be found on our legionella pages and in parts 1 and 2 of HSG274..

How can I keep up to date with progress on this issue?

For more details on the biocides directive please see HSE Biocides web site.

Company sentenced after worker loses finger in machinery

A cable manufacturing company has been sentenced today for safety breaches after a worker suffered the loss of his left little finger.

Sunderland Magistrates' Court heard that on the 24 of September 2015 during the cable making process the injured worker at AEI Cables Limited put his left hand into an unguarded machine. His hand came into contact with dangerous parts of machinery. He lost one finger and received serious lacerations to the other fingers on his left hand.

A Health and Safety Executive (HSE) investigation found there was no guarding in place to prevent access to the dangerous part of the machinery.

AEI Cables Limited of Birtley, Chester-Le-Street County Durham pleaded guilty to breaching Regulation 11(1) of the Provision and Use of Work Equipment Regulations and was fined £40,000. Costs were also awarded.

After the hearing, HSE inspector Victoria Crofton commented: "This injury was easily prevented and the risk should have been identified.

"Employers should make sure they properly assess and apply effective control measures to minimise the risk from dangerous parts of machinery."

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South Devon engineer sentenced for unregistered gas work

An unregistered plumber has been sentenced after conducting gas work and leaving it in a dangerous state.

Torquay Magistrates heard how Stephen Barton undertook the installation of a gas cooker and gas boiler at two separate properties in Dawlish and Exeter during January and May 2016. Gas Safe Register who inspected his work at the homes classed it as dangerous.

An investigation by the Health and Safety Executive (HSE) found that Stephen Barton wasn't Gas Safe Registered at the time he conducted this work.

Stephen Barton of Park Road, Dawlish pleaded guilty to breaching Regulation 3(3) of the Gas Safety Installation and Use Regulations 1998 and breaching Section 3(2) of the Health and Safety at Work Act 1974. He has been sentenced to undertake 300 hours of unpaid community work and to pay £3,600 in costs.

Speaking after the hearing HSE inspector Simon Jones said: "Stephen Barton undertook gas work which he knew he was not registered to do.

"All gas work must be done by registered Gas Safe engineers to ensure the highest standards are met to prevent injury and loss of life."

Further information about gas safety can be found at http://www.hse.gov.uk/gas/

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