

Cleaning up on compliance: safe and efficient laundry

Specialist cleaning and compliance tasks can help to ensure that your home's air and water supplies are as safe and healthy as possible. **Gary Nicholls**, MD of duct cleaning and Legionella risk expert Swiftclean, explains why air and water compliance is essential to laundry and cleaning routines, as well as to protect clients, visitors, and staff

When caring for the elderly, we all recognise that good air quality and clean water are essential. Over the years, industry guidance and best practice have been developed to support this aim, and we now have in place a number of regulations and specifications designed to manage the risks associated with the management of care homes.

Clean laundry is an important aspect of any residential facility, and this is especially true of care homes, where elderly and infirm residents need particular care and support. Some homes may tackle aspects of laundry in-house, while many completely outsource their laundry to external service providers.

It is estimated that commercial laundries in the UK wash, dry, and press over 50 million pieces of laundry a week, and their combined output includes over 90 per cent of the NHS's textile products, and 95 per cent of hotel linen. Commercial laundries also handle a huge number of uniforms from medical and care settings. In fact, the commercial laundry industry as a whole provides more than 24,000 jobs in the UK.

The Textile Services Association (TSA) estimates that if commercial laundries were to cease operation overnight, 90 per cent of hospitals would be forced to close within 24 hours. Care homes would not be far behind. Like hotels, pharmaceutical plants, and food processing factories, care homes who use an external laundry service would undoubtedly be faced with closure within a few short days if the laundry suddenly became unavailable.

The safe and efficient operation of every laundry is therefore critical. However, there are aspects of laundry maintenance which can sometimes be forgotten. One of the most frequently overlooked aspects of laundry maintenance is extract ventilation



Neglect of laundry extract ductwork is an urgent issue

ductwork cleaning. This task has been covered by the Building Engineering Services Association (BESA) standard TR19 Air and its predecessors – TR19 and TR17 – for many years; yet, separate from the main ventilation system, it has often been overlooked, and suffered from ‘out of sight, out of mind’ neglect.

Laundry extract ductwork

Neglect of laundry extract ductwork is an urgent issue, as it represents a major fire risk. This should be remembered by all care homes – even in those which outsource the bulk of the laundry, there are usually some laundry facilities for more urgent tasks. In theory, we all know that we should remove dust and lint from drier filters after every load. Failing to clear filters can reduce the efficiency of the machine and lengthen

the drying time, causing it to use more electricity to dry each load. Over time, this can have a significant cost implication.

What is often overlooked, however, is the importance of cleaning the machine's extract ductwork.

This oversight can create a huge fire risk.

When laundering towels, bedding and other textiles, one of the unavoidable consequences is the generation of large quantities of lint and fibres, which become airborne during the drying process. Particles are drawn out of the machine and along the ductwork, but, as the air cools, they lose momentum and are deposited in the ductwork itself. Lint and fibre particles accumulate in drier extract ductwork, forming highly flammable deposits.

Deposits can also collect in voids within the drier machine itself. Any deposits of this nature should be removed during the regular servicing of the drier machines by the service engineer.

If not regularly removed, fibre deposits

will eventually obstruct the ductwork itself so that the overall airflow is reduced. If it is not possible to draw in a good supply of cooler, fresher air, the drier drum is prone to overheating. These two factors together – overheating, combined with the highly flammable nature of fibre deposits – constitute a very serious potential fire risk.

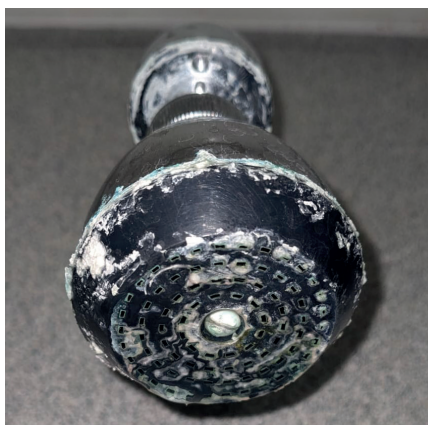
Lint, in particular, is highly flammable, and when lint deposits are reheated by subsequent use of the drier, the risk of their combusting is even greater. Should a fire start, the ductwork, acting as a chimney, can become a channel through which fire can spread.

The only way to remove this fire risk is to remove fibre deposits on a regular basis, in compliance with TR19 Air. Fortunately, this standalone specification contains helpful tables which stipulate how often the ductwork should be cleaned, according to the frequency and duration of its use.

This regular cleaning should be conducted by an expert cleaning provider; ideally, a member of the BESA Vent Hygiene Register (VHR), which is the UK's official register for vent and ductwork hygiene contractors. In order to become, and remain, VHR members, specialist cleaning providers are required to demonstrate a good track record of compliance, using only appropriately trained, competent operatives. Trained technicians will ensure that cleaning is carried out competently and compliantly every time.

Building managers

The building manager or owner has serious responsibilities under the Regulatory Reform (Fire Safety) Order of 2005 to ensure that they minimise the risk of fire in the



premises. Not only must the manager comply with the regulations; they also need to be able to demonstrate their compliance.

Perhaps the most valuable evidence of compliance comes in the form of Building Engineering Services Competent Assessment (BESCA) post-clean certification, which includes before and after photography of each section of ductwork. BESCA is the certification arm

of the BESA, and its post clean certification is widely recognised by both insurance companies and the authorities.

Demonstrating compliance to your buildings' insurer will be invaluable in the event of a fire, as an increasing number of insurers now refuse to pay out if you cannot provide evidence that you have done all you can – or are obliged to do – to prevent a fire.

Demonstrating this same compliance to the authorities can be even more critical, as the Responsible Person under the Regulatory Reform (Fire Safety) Order of 2005 can be prosecuted for negligence, and a conviction may result in a custodial sentence. This is especially true if there has been a fire which resulted in injuries or fatalities. BESCA post-clean certification of compliance with TR19 Air is therefore a very helpful defence in law against a charge of negligence.

Only a VHR member can provide BESCA post-clean certification. They should also be able to deliver a full digital report within 30 days of completion of the clean (we always aim for within five working days); including the essential pre- and post-clean digital photographs. Your VHR member will also help to ensure that you stay compliant by helping you to establish an ongoing plan for preventative cleaning and maintenance. They will prompt you when cleaning is due, and agree a date for technicians to visit to ensure that your compliance does not lapse. This helps you to minimise your fire risk on a longer-term basis and helps to protect the smooth running of your care home. Digital post-clean evidence will follow promptly after each visit, providing peace of mind as well as evidence of compliance.

A package of services

There can be benefits in purchasing a package of services. TR19 Air also covers ventilation system hygiene, while its sister specification, TR19 Grease, governs compliance in kitchen extract systems. Your kitchen extract system can also harbour a serious fire hazard in the build-up of airborne grease, which must also be competently and professionally removed to prevent fire spreading through a grease laden kitchen extract system. If you have an in-house kitchen, you will also require evidence of your compliance with TR19 Grease, and again, only a member of the BESA VHR can provide this.

The other vital element of laundry is, of course, a safe water supply, which is also essential for general cleaning purposes. This



means that it must be free of waterborne bacteria such as Legionella. In order to help prevent the proliferation of Legionella, water must be able to circulate freely throughout all water carrying pipework.

Many care homes are located in adapted older buildings, while other more modern, purpose-built homes may have been extended or altered as the successful business expands. This sometimes leads to the pipework being reconfigured, and may include the addition or removal of water outlets such as drinking fountains, basins, or showers. Altering the pipework must be done with care as there is potential to create what are known as 'dead legs' – lengths of pipe which are effectively dead ends, and in which water can remain static.

Static water is particularly high risk for the proliferation of Legionella, especially when the temperature of the water is raised, either by solar gain or ambient temperatures. Legionella proliferates in tepid, static water. Legionella bacteria is the cause of Legionnaire's Disease, a severely debilitating 'flu-like illness, which is particularly serious for the elderly or frail, especially those with an underlying health condition or a weakened immune system. Around 12 per cent of people who contract Legionnaire's Disease will die from it, particularly in this more vulnerable group.

Legionnaire's Disease is contracted by breathing in minute droplets of water containing Legionella bacteria. This gives us something of a dilemma. Although water systems must be regularly flushed when not in constant use, they must be flushed safely – without creating spray – in case bacteria is present in the droplets created, and inhaled by the person flushing the system.

Ironically, Legionnaire's Disease can easily be caught by a cleaner using an unflushed water system. It takes up to 14 days for symptoms of Legionnaire's Disease to present, so anyone can be infected



You have a legal duty to prevent the proliferation of Legionella

without it being immediately obvious.

If you have a room – especially an en suite or wet room/bathroom facility – which is unused for more than a few days, you should complete flushing routines every few days so that the water is not left static in the pipework for too long. The Approved Code of Practice L8, issued by the HSE (Health & Safety Executive) explains when and how this should be done.

Sink or basin taps should be run for several minutes, but without causing splashing or spray. The best way to do this is to cover the tap with a plastic bag or a nitrile glove with a hole cut in the finger to create a channel for the water to run onto the basin surface smoothly, without splashing. Toilets should be flushed several times with the lid shut. With the lid up, the flush can create a large upward spray of microscopic water droplets which can be inhaled and which can settle on other surfaces of the

bathroom, carrying any bacteria present in the toilet bowl when flushed.

Showerheads should be placed in a bowl or jug for of water before running the water, so the spray from the showerhead is submerged and water can run away without splashing. If you find that you have water outlets which are rarely or never used, it is better to have them removed by a competent plumber, removing any unnecessary pipework to prevent potential dead legs.

It is also good practice in your own home, following more than a few days away, to flush your domestic water system through in the ways described, to safeguard both your and your family's health.

A legal duty

As a care home owner, manager, or facilities manager, you have a legal duty to prevent the proliferation of Legionella, and certainly to prevent any outbreaks of Legionnaire's Disease. You must, therefore, always have an up-to-date Legionella Risk Assessment, and you should have protocols in place to make sure that you know how to stay compliant with the ACoPL8, which governs the control and prevention of Legionella. Your risk assessment should be updated whenever there is a significant change to the water system; and also when there is a change of Responsible Person. In practice, this means that if your property owner, facilities manager or manager with responsibility for building maintenance changes, you must update your risk assessment so that they are clearly identified. An out-of-date risk assessment can leave you open to an accusation of negligence.

Negligence in Legionella prevention has serious consequences, including prosecution of the individuals responsible,



with a possible custodial sentence on conviction, especially if there has been a fatality due to Legionnaire's Disease. In addition to prosecuting its individual owners, an organisation can also be prosecuted for negligence following a Legionnaire's Disease outbreak, and if it is convicted, the court can impose limitless fines on the organisation as an entity.

If you are in any doubt about your Legionella compliance, you should seek advice from an expert Legionella risk management expert. As with TR19 Air compliance, you should choose your provider carefully, as you will need evidence of your compliance from a competent professional.

To assist you with L8 compliance, you should appoint a member of the Legionella Control Association (LCA). LCA members are required to renew their membership every year, and are regularly vetted by the LCA to ensure that they will provide expert, competent services. Look for a member with a long track record of competence and LCA membership.

It is important, when caring for others, not only to ensure that they are safe, but also to protect your own team and any visitors –

and your business too. These aspects of air and water safety, being behind the scenes, can be all too easy to overlook. However, as with primary care, any failure to ensure that these measures are complied with can adversely affect your CQC ratings. Fines

for lack of Legionella compliance could be enough to put you out of business.

Calling in some expert help can be an effective way to ensure that your team is protected and your CQC safety rating does not drop. ■

Gary Nicholls

Gary is founder and MD of Swiftclean (UK) Ltd, a business that he started in 1982. Swiftclean is a pioneering member of the BESA's Vent Hygiene Register. For over four decades, Gary has worked closely with industry bodies such as BSRIA, CIBSE, and the BESA (and formerly HVCA) to help develop industry guidance and specifications in the ventilation hygiene field. He was co-author of TR19 Air and its predecessors TR/19 and TR/17, as well as TR19 Grease. He innovated by introducing the wet film thickness test as a way of measuring grease accumulation in Kitchen Extraction Systems and managing the connected fire risk. Gary has been called as an expert witness associated with legal disputes following fires that



have involved kitchen extraction. He introduced a BESA approved training school to his business, helping other businesses to train their staff to industry standards and raise the level of quality across the industry.

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