

Legionella Policy and Responsibilities

This policy document contains different information for schools in the Statutory Compliance and Reactive Maintenance Scheme and those which are not. Please ensure that you read and apply the correct information.

1. Summary

Legionella bacteria are common and found naturally in rivers, lakes and reservoirs. As a result, low levels of legionella bacteria will enter schools' water systems through the mains water supply. In most instances, the bacteria pass uneventfully through the system as water is used for washing, cooking and flushing before being drained away.

In certain circumstances, the bacteria can proliferate within a water system to levels that might present a health risk if they were subsequently inhaled as water aerosol - as is created, for example, by a shower. Inhaling legionella bacteria in this form can lead to an uncommon illness called Legionnaires' Disease that when diagnosed can usually be treated effectively with antibiotics but in some cases, can be more serious. For scale, only about 200 cases are reported per year in the UK and children are not considered to be a susceptible population. Those at greatest risk are adults over 45, smokers, diabetics and those with cancer or chronic respiratory or kidney disease. People who have an impaired immune system are also more susceptible.

It is important to understand that inhalation of water aerosol is the **only** significant means by which a health risk associated with legionella is presented. Drinking, washing, food preparation and toilets are not significant sources of risk associated with legionella bacteria.

The risk of health issues related to legionella bacteria within school environments is therefore generally low and schools should ensure that the management action taken is **proportionate** to that risk.

However, all schools must act to reduce the likelihood of legionella bacteria proliferation and to fulfil statutory obligations.

2. Local Authority responsibilities

For schools in the LA Statutory Compliance and Reactive Maintenance School the LA will:

Ensure a written process is in place to risk assess and maintain all hot and cold-water systems to ensure that any risk from Legionella bacteria is reduced as far as is reasonably practicable.

Appoint a competent person with responsibilities for devising, implementing and monitoring the scheme of assessment and preventative maintenance.

Put in place control strategies where a significant potential risk exists. These should follow the principles of system modification (removal of dead ends/legs) and temperature control as a means of eliminating or reducing the risk.

Have in place and operate an immediate response Legionella plan for dealing with the discovery of levels of bacteria above prescribed limits so as to prevent or minimize any potential hazardous exposure.

To keep written records of control measures in place i.e. temperature checks, water tests, system cleaning.

The local authority will monitor the arrangements for the management of Legionella as part of its regular health and safety monitoring visits to schools.

3. School responsibilities

The extent of management action necessary will vary from school to school depending on the hot and cold-water systems and pipework that is present and in all instances, it is important to have a competent person carry out an assessment of the school water system and to make a subsequent assessment of risk. This assessment of risk will identify the appropriate action to be taken.

Schools that are members of the local authority's Statutory Compliance and Reactive Maintenance Scheme will have these assessments made as part of that scheme. All other schools and academies are responsible for ensuring these assessments are made by a competent person.

All schools must identify a named person to take responsibility for the management of legionella. This person should have sufficient authority to be able to influence management decision and budget spend to ensure that the risk assessment process occurs and that all subsequent actions are completed. The named person can rely on expert opinion from another competent person but remains responsible and accountable for the overall management of the risk.

If some instances, localised routine maintenance functions may fall to school staff to complete to avoid the expense of having a contractor undertake them. This may include recording water temperatures; flushing taps and showers; and recording that these actions have been completed. No specialist skills are required to undertake these tasks but it is important that the initial induction is completed by a competent person to ensure school staff have a clear understanding of the tasks to be done and the reason why they need to be done.

Schools undertaking their own temperature tests may wish to ask their competent contractor to carry out a temperature check on one of their planned visits and to check the school records to ensure the system is operating correctly.

Schools should avoid disproportionate actions based on theoretical legionella risks or what might fall outside of being reasonably practicable. These include removing roses from watering cans; avoiding the use of water for play or learning purposes; discontinuing the use of pre-packaged garden materials and excessive flushing regimes in low-risk situations.

The assessment of risk presented by the water system will obviously change each time any amendment is made to the system. Schools must always review assessments after any addition/removal or other significant change to the system. For those schools within the local authority's Statutory Compliance and Reactive Maintenance Scheme, it is essential that any amendments are notified to the scheme in-order to pre-empt the re-assessment.

The remainder of this document sets out standard legionella control strategies and represents the broad approach of the LA. In all instances though the school must take account of its own assessment of risk and act accordingly.

Control Strategy Principles

Legionella bacteria require three simultaneous factors to be present to support growth:

1. Water temperatures within the 20°C to 45°C range;
2. A supply of nutrients such as algae and other bacteria found in sludge and scale;
3. Time.

Each of these elements can be contained by good maintenance and procedures.

1. Water temperature

Legionella bacteria cannot survive below 6°C or above 60°C so an effective hot water system operating at temperature above 60°C will eradicate any legionella bacteria. Above 50°C will deter growth.

Regular maintenance will ensure that water temperatures remain high enough to restrict growth and measurements should be taken to ensure that water at the furthest point of the system is retaining that level of temperature.

To reduce the risk of scalding, thermostatic mixer valves should be installed in order that the water is delivered at the required temperature of not more than 43°C.

2. Supply of Nutrients

Avoiding water stagnation will prevent the growth of biofilm and keeping the system clean will avoid the build-up of sediments which will encourage bacteria proliferation. Having the right size water tanks will prevent excessive water from being held in the system and inlet and outlet pipes at opposite ends of tanks will create a more efficient through-flow of water. The removal of dead-legs and other redundant parts of the water system will avoid having pockets of water permanently in the system. Covering water tanks with a lid will also help prevent the growth of biofilm.

3. Time

In normal circumstances water will flow through the school's system steadily as taps are run and toilets are flushed. Unlike our own homes though, the flow through is probably less during evenings, weekends and of course school holiday periods. This additional time spent in the system increases the risk for levels of bacteria to become elevated. To address this, a regime of flushing is recommended.

The LA position is that engaging additional resources to conduct and maintain this flushing regime throughout school holiday periods is not an action which it considers to be proportionate to the risk - **providing that water aerosol producing facilities are not used during that period and that the flushing is undertaken prior to the commencement of the new school term and normal usage of outlets resumes**

• Showers

When showers are not in regular use, weekly flushing must be undertaken to release water held in the pipework, allowing time for the maximum water temperature to be achieved.

To control any risk to the person undertaking this task, a plastic bag can be placed over the shower head with a corner cut off to allow water to escape or the showerhead can be removed or the shower hose can be placed directly over the drain outlet.

Showerheads and hoses should be dismantled, cleaned, disinfected and de-scaled every three months.

Records of showerhead flushing and cleaning must be kept.



- **Taps**

Taps are less likely than showers to generate aerosols, but it remains good practice to run taps that are not used regularly so that water is not left in pipes for long periods. Taps identified as low usage by the risk assessment should be run for a short period every week to release water held in the pipework. A record of this flushing must be kept.

- **Hoses and High-Pressure Washers**

Garden hoses and high-pressure washers should be drained after use particularly if they are left outside where ambient temperatures are high. If this is not possible the hose should be run for a short while either without the head on or directly down a drain or into the ground.

- **Hydrotherapy Pool**

Special schools may have a hydrotherapy pool. These are a much higher risk in respect of legionella and must be subject to a specific maintenance regime in line with the manufacturers and installers instructions.

Action in the event of a positive water test result for Legionella bacteria

The LA contractor, or the school's own contractor, will inform the school of any positive analysis of water samples. It is important that any sources of aerosols are immediately isolated and prevented from being used. The school, or the LA Statutory Compliance and Reactive Maintenance Scheme Operator, must arrange for the necessary corrective treatment to take place at the earliest opportunity.

Provided the school can operate without using the isolated facilities there is NO NEED for the school to close in the intervening period. Schools should consider informing parents about the ongoing work to avoid rumour or misrepresentation of any theoretical health risk. A standard letter for this purpose is available on Right Choice. The corrective treatment needed to eradicate legionella is relatively straightforward, but it normally takes up to 14 days after the treatment before the eradication of the bacteria can be confirmed (this is the incubation period of the bacteria). Only once this confirmation has been received should isolated facilities be brought back into use in line with the contractor's advice.

In the unlikely event of very elevated results being discovered in maintained schools then the local authority will notify Public Health England in line with precautionary protocol regarding communicable disease control. Other schools/academies should make this provision unilaterally by contacting swhpt@phe.gov.uk

4. Key information and definitions

Water aerosol describes the very fine water droplets that can be generated by air conditioning plant, showers, spray taps, cooling towers, Jacuzzis, water pressure hoses and other similar equipment.



Spray from normal taps and toilets are not considered to represent a significant risk.

A **competent person** will be someone who has the necessary understanding, experience and authority to be able to assess risks and act accordingly.

5. FAQs

Q. Does the school need to routinely clean and disinfect the water system?

A. This will depend on the type of water system and the requirements should be identified in the risk assessment.

Q. The school has a pond, does this present a risk of Legionella to the children?

A. The only health risk comes from the inhalation of water aerosol in which the bacteria are present, a pond is unlikely to generate such droplets. A water feature or fountain may create a risk and should be included in the risk assessment.

6. Success indicators

The school has a suitable and sufficient Legionella risk assessment in place.

The school has a Legionella management plan based on the findings of the risk assessment.

Complete records of routine tasks related to the management of Legionella (temperature checks, flushing of outlets etc) are held.

7. Further help and information

HSE – [Legionnaires' disease – A brief guide for duty holders](#)

HSE – [The control of Legionella bacteria in hot and cold water systems](#)

FM Support Helpline

Tel: 0300 456 0101.

Health and Safety Advisers

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