Legionella Policy
and
Written Scheme

Document Control

Date	Revision amendment details	By whom
Feb 2022	Policy drafted for Ops to recommend to Trust Board	Ops Group
Feb 2022	Policy approved and thereby adopted	Trust Board
Feb 2023	Proposed review date subject to any earlier identified statutory requirement to update	Ops Group

Elliot Foundation Academies Trust Values

1. Put children first

a. We trust and value your professionalism
b. We share the responsibility for the learning and welfare of all of our children
c. Our purpose is to improve the lives of children

2. Be safe

a. Don't assume that someone else will do it
b. Look after yourself, your colleagues and all children
c. We are all responsible for each other's safety and well being
d. Discuss any concerns with an appropriate member of staff

3. Be kind & respect all

a. People are allowed to be different as are you
b. Kindness creates the positive environment we all need to flourish
c. This kindness should extend to ourselves as well as to others

4. Be open

a. If you can see a better way, suggest it
b. If someone else suggests a better way to you, consider it
c. We exist to nurture innovators and support those who take informed risks in the interests of children

5. Forgive

a. We all make mistakes
b. Admit them, learn from them and move on

6. Make a difference

a. Making the world a better place starts with you
b. Model the behaviour that you would like to see from others

Definitions

- Where the word 'Trust' is used in this document it refers to The Elliot Foundation Academies Trust.

Related Policies and documents

- Health and Safety local policy and Trust-wide policy
- Health and Safety at Work etc. Act 1974
- Management of Health and Safety at Work Regulations 1999 (as amended)
- Control of Substances Hazardous to Health Regulations 2002
- Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 2013
- HSE (2013) Legionnaires' Disease
- HSE (2014) Sensible H&S Management in schools
- DfE (2021) Health and Safety : responsibilities and duties for schools
- Legionella ACoP L8 HSG 274 (Part 2 & 3)

1. Statement of Intent

The Elliot Foundation Academies Trust (TEFAT) has a duty to assess, prevent and control any risks from harmful bacteria, such as legionella, and to implement suitable precautions to ensure the health and safety of staff, pupils and the school community. TEFAT will follow the measures set out the approved code : HSG 274 Part 2

Legionnaires' disease is a potentially fatal form of pneumonia caused by the inhalation of water droplets infected with the legionella bacteria. Legionella bacteria can occur naturally in lakes, rivers, etc. and in the water systems of buildings, such as schools. The bacteria thrive between temperatures of 20°C and 45°C; however, it can be killed by elevated temperatures or chemical treatment methods. This policy outlines how we aim to mitigate any risks involving legionella bacteria.

2. Routine controls to mitigate risk

- A legionella risk assessment to identify risks and how best they might be controlled
- Avoid water temperatures and conditions that favour the growth of legionella
- Ensure water cannot stagnate in the system by keeping pipe lengths as short as possible, with no deadlegs
- Keep systems and water clean, including fitting lids to tanks
- Treat the water to limit growth of legionella
- Flush infrequently used outlets at least weekly
- Clean and descale shower heads and hoses at least quarterly

3. Roles and Responsibilities

The Trust:

- Appointing a single provider for statutory compliance including all aspects of legionella management including:
    - Production and annual review of site specific legionella risk assessments and written schemes for prevention and control
    - Undertaking and recording routine water quality testing and remediation aligned to the findings of risk assessment and scheme

- Routinely quality assuring the appointed contractor in respect of value for money and compliance

- Providing site managers with training and guidance on implementation of safe processes and procedures
- Monitoring the effectiveness of legionella control measures across the estate
- Reporting cases of legionnaire's disease to the HSE, if necessary
- Investigating and responding to trends in elevated legionella risks

The Academy:

The Principal, who may delegate the function to other appropriate Academy post holders, is responsible for:

- Adopting this policy and approach
- Working collaboratively with the Trust and its appointed specialist contractor
- Monitoring the work of the specialist contractor
- Appointing a designated staff member to understand the systems and equipment and associated risks from exposure to legionella including:
    - Whether water is stored or re-circulated
    - Where there are infrequently used outlets and ensuring that these are routinely flushed on a weekly basis
    - Where there are potential sources of rust, sludge, organic matter etc
- Ensure records are held on site detailing locations, dates and detail of flushing, temperature checks, sampling, cleaning and disinfection/treatment carried out
- Escalating repeat non compliant temperature readings and high risk system configuration to the Trust's Estates and H&S Director

Annex 1

WRITTEN SCHEME FOR CONTROLLING THE RISK OF EXPOSURE TO LEGIONELLA BACTERIA IN THE ACADEMY PREMISES

In accordance with the HSE's Approved Code of Practice and Guidance Document L8, the control of legionella risk is managed in all TEFAT academies by :

- Appointing a statutory compliance provider (currently 3D Facilities Management Ltd) to :
    - Conduct risk assessments for all academies - reviewing risk assessments at least every two years.
    - Prepare and implement a Control Scheme – taking account of the measures identified in all of the risk assessments conducted thus far with the view to prevent or minimise the risk of exposure to legionella bacteria throughout the portfolio.
    - Implement on each site, a monitoring and recording procedure, including the taking of Water Samples for laboratory analysis, using BS 7592 (Sampling Water Systems for Legionnaires' disease) as guidance, to ensure that measures put in place are adequate, effective and well documented.
    - Providing training for site managers on a regular basis to ensure they have the knowledge and competence to carry out the tasks to which they have been assigned.
- Purchasing and installing equipment for new projects, schemes or refurbishment programmes that help to prevent and or minimise the risk of exposure to legionella bacteria.

(a) Schematic Diagram

The schematic diagram for the Academy premises is contained in the Water Services Log Book. Basic copies are incorporated within the Legionella Risk Assessment

(b) Description of correct and safe operation of systems

The water services systems at the premises operate under the following conditions of temperature:

Cold water storage: below 20◦C within 2 minutes running

Hot water storage: at least 60◦C

Hot water distributed at between: 50–55◦C

Hot water service return: 50◦C or above

All outlets to be flushed weekly unless used more frequently

Hot water outlets with blending valves set to 41-46◦C as appropriate and thermostatic mixing valves to be located within 1m of the outlet served.

(c) Precautions to be taken

- The primary objective is to avoid conditions which permit legionella bacteria to proliferate and to avoid creating a spray or aerosol.
- Design and construction of new systems and alterations to be in accordance with HSE ACoP L8, BS8558 and conform to Water Regulations.
- New and modified pipework to be disinfected and sampled as per BS8558.
- All water spray should be controlled and should not create an aerosol where possible.
- Water temperatures and conditions that favour proliferation of legionella bacteria and other microorganisms should be avoided.
- Water stagnation is to be avoided
- The use of materials that are not WRAS approved and harbour bacteria and other micro- organisms, or provide nutrients for microbial growth should be avoided.
- Hot water outlets which pose a scalding risk to be fitted with thermostatic mixing valves depending on the risk assessment for the particular outlet and persons at risk.
- Showers and outlets shall be flushed in a manner that removes the possibility of creating an aerosol
- With flexible shower hoses, the spray head should be lowered temporarily into a bucket placed on a stool, and the water run to drain that way without creating an aerosol.
- Where it is difficult to carry out weekly flushing, the stagnant and potentially contaminated water from within the shower/tap and associated dead legs needs to be purged to drain before the appliance is used.
- When undertaking maintenance procedures, cleaning and decontamination work, it will be necessary for operatives (both Contractors and academy staff) to ensure that adequate safety precautions are taken and that suitable protective wear and equipment is utilised as required to comply with the Health & Safety etc Act 1974.
- All maintenance contractors employed by the academy, will be required to submit a copy of their Safety Procedures, Risk Assessments and Method Statements before undertaking any activities on the premises.

(d) Checks to be carried out to ensure effectiveness of scheme

Checks, their frequency and the persons responsible for carrying them out are in accordance with **Table 1 & 2 of this document**.

RESPONSIBILITIES

Under the 'Approved Code of Practice and Guidance' entitled "Legionnaires Disease: The control of Legionella Bacteria in water systems" L8 owners and operators of water systems are required to: -

- Appoint a responsible person – who is responsible for ensuring the implementation of the control scheme and ensuring a suitable and complete record system is in operation.
- Record the name and position of each individual responsible for carrying out tasks and an indication of the lines of communication.

Details can be found in the Site Water Maintenance Log Book.

The person(s) responsible are clearly defined by the trust (TEFAT) as detailed below.

Statutory Duty Holder - Director of Estates and Health & Safety

TEFAT, as the statutory duty holder, has appointed the Director of Estates and H&S as the person taking director responsibility and ensuring a trust wide process is in place and followed, and that appropriate funding is made available to carry out any capital and revenue implications of legionella control.

Nominated Responsible Person - Principal

The duty holder has appointed the individual academy Principal/Executive Principal to take day-to-day responsibility for ensuring the control measures are in place. They may delegate the day to day operation of legionella control to an appropriate person, eg Site Manager, but must ensure that the TEFAT process is being applied at academy level.

Operational Staff – Site Manager / Operations Manager

The site manager / operations manager oversees the day to day legionella management regimes, including :

- Ensure that the appointed statutory compliance water quality contractor (3d FM) carries out Risk Assessments at least bi-annually and after any change or alteration to the water systems.
- Implement any remedial actions / recommendations from Risk Assessment
- Ensure work is carried out in an efficient and timely manner - by both the appointed water quality contractor and locally - as recommended by Risk Assessment
- Ensure all records are signed by those people performing the various tasks assigned to them.
- Identify training requirements and report to the Nominated Responsible Person for approval of the request.
- To receive reports and take immediate action where required

- Record and sign checklists by person (s) carrying out the various tasks
- Monitor and report any issues
- Carry out tasks correctly as referenced in **Table 2.**

Contractors

All contractors employed by the Academy to work on water systems shall hold relevant certificates of competence and shall be responsible for ensuring the works comply with relevant water regulations and L8. Work on water systems includes connection to, modification or maintenance to the water system.

Written Method Statements and Risk Assessments, Health & Safety Policy and insurance details are to be submitted for approval before work commences.

The Contractor will complete the Log Book held on site. This entry confirms the contractors' attendance on site and what work was carried out.

Table 1 - Actions taken by water quality contractor (3DFM)

Frequency	Check	Standard to meet		Notes
		Cold water	Hot Water	
Monthly	Sentinal taps	The water temperature should be below 20 C after running the water for up to 2 minutes	The water temperature should be at least 50C within a minute of running the water	This check makes sure that `the supply and return temperatures on each loop are unchanged i.e. The loop is functioning as required
	If fitted, input to TMV's on a sentinel basis		The water supply to the TMV temperature should be at least 50C within a minute of running water	One way of measuring this is to use a surface temperature probe
	Water leaving and returning to calorifer		Outgoing water should be at least 60C return at least 50C	If fitted the thermometer pocket at the top of the calorifier and on the return leg are useful points for accurate measurement. If installed these measurements could be carried out and logged by a building management system
Quarterly	Showerheads			wash/clean/descale
Six monthly	Incoming cold water inlet (at least once in the winter and once in summer)	The water should preferably be below 20C at all times		The most convenient place to measure is usually at the ball valve outlet to the cold water storage tank
	Expansion vessel			Flushing recommended 6 monthly
Annually	Representative number of taps on a rotational basis	The water should be below 20C after running the water for 2 minutes	The water temperature should be at least 50C within a minute of running the water	This check makes sure that the whole system is reaching satisfactory temperatures for legionella control
	Cold water storage tank			Recommended to inspect annually
	Legionella			Sampling recommended
	TMV Servicing			

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	Cold water storage tank			Recommended to inspect annually
	Legionella			Sampling recommended
	Calorifiers			Blown down annually

Table 2

Actions completed by Site Managers

Task	Frequency
Wash / Clean / descale of tap heads	Monthly
Little used outlets	
Flush frequently to simulate moderate usage	Weekly
Closed Periods	
Flush all outlets	On return from closed periods
Flushing	
Shower Flushing /Testing run for 2 minutes twice a week or 5 minutes once a week	Weekly
Flush Drinking Fountains / Water Coolers	Daily / twice per week in non-term time
Bib Taps	Weekly
Flush upper ground floor kitchen areas hot water	Weekly
Out of Term Time all outlets should be flushed more frequently. (i.e twice per week instead of once)	

Water Temperature check (undertaken by appointed specialist contractor - 3D FM)

Method – Run taps fully open until maximum (hot) or minimum (cold) temperature is reached.
Using an electronic probe thermometer, take the temperature of the water stream and record when the temperature is stable.

Readings should be taken after 2 minutes for cold water outlets and 1 minute for hot water outlets (although hot water outlets fed via small capacity sources may drop rapidly during that timescale).

Records – in writing to include
Dates, locations, water temperatures, name(s) of person(s), signature

Notify to - Site Manager / Operations Manager

Water Outlet Flushing

Flush through and purge to drain, or purge before use, without release of aerosols.

All hot water supplied showers and spray taps unused for in excess of one week.

Method – Run water at full flow and maximum temperature for five minutes, direct to drain or into a suitable container for discharge to drain

To minimise aerosol production and exposure

Where possible, showers should be removed and discharged direct to the drain The flushing should be carried out with no other staff present

Where showers and taps have been in excess of a week without flushing, staff carrying out the activity should wear suitable face masks

Records in writing to include
Dates, locations, name(s) of person(s)

Water samples for analysis, where appropriate, are to be taken at the same time as the visual survey is undertaken. In addition samples will be taken at a greater frequency, in the event of an outbreak.
Instructions may include closure of the water services affected

Action to be taken in the case of a Water Sample giving a positive Legionella test result

In the event that the statutory compliance contractor (3D) , through its periodic testing and sampling, reports a positive test result :

- 3D will alert the academy (site manager) and TEFAT.
- The outlet causing concern is taken out of use
- A set of actions is agreed between TEFAT, the academy and the contractor

Under the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR), any cases of legionellosis in an employee who has worked on hot and cold water systems that are likely to be contaminated with legionella must be reported.

Definitions and explanations:

Sentinel tap: a 'sentinel' is a sentry who stands guard over something, watching and keeping an eye on safety, and the term is used to describe the taps which are used regularly to monitor, sample and check the water quality and temperature. Basically, the sentinel taps are defined as the first and last ones on the system. For the cold water, they will be the taps nearest to and furthest from the incoming cold water main or cold water storage cistern, and for the hot water, they will be the nearest to and furthest from the hot water source, be it calorifier, vessel or water heater. All buildings will have at least two mains cold water, two stored cold water and two hot water sentinel taps, and they are usually easy to identify. For larger buildings, there may be more sentinel taps, which can be identified by reference to the water services schematic diagram for the site. Once identified and labelled, they will not change unless some major alterations are done to the water systems.

Calorifier: a calorifier is nothing more than an industrial-size version of the indirect domestic hot water cylinder found in houses. Calorifiers tend to be fitted in larger premises, whereas smaller properties often have point of-use electric water heaters, which pose fewer risks. Calorifiers rely on thermal stratification where the hot water collects at the top and is drawn off for use. A pumped circulation main is often fitted in larger premises, and the returning slightly cooler water is injected back into the calorifier cylinder part way up. Cold feed water from a tank enters at the bottom. Close control and monitoring of the temperatures in and around the calorifier and pipework is necessary to ensure that water is heated to and held at 60 degrees C before being drawn off, in order to kill any bacteria present in the feed water.