

LEGIONELLA POLICY & MANAGEMENT PLAN

Regulation ISSR:

Reviewed and updated by: Mrs M Rigby (DFO) & Mr S Spivey (Estates Manager)

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INTRODUCTION

Legionnaires' disease is a type of pneumonia caused by organisms found in water. It is the most well-known and serious form of a group of diseases known as Legionellosis. Legionellosis is the term used for infections caused by legionella pneumophila and other similar bacteria. Infection is caused by inhaling fine air borne water droplets or particles containing the viable bacteria; the disease cannot be passed from one person to another. Everyone is potentially susceptible to infection but some people are at higher risk, for example those over 45 years of age, smokers and heavy drinkers, those suffering from chronic respiratory or kidney disease, and people whose immune system is impaired. Infection can also cause less serious illnesses which are not fatal or permanently debilitating but which can affect all people. All outbreaks of the disease are avoidable if simple precautions are taken.

The incubation period ranges between two and ten days and usually begins with a headache, muscular pain and a general feeling of being unwell. These symptoms are followed by high fever and shaking chills. Nausea, vomiting and diarrhoea may occur. On the second or third day dry coughing develops and is often accompanied by breathing difficulties. Effective treatment may be achieved by the use of antibiotics.

Infection is attributed to inhaling legionellae, either in water droplets which are small enough to penetrate deeply into the lung, or in droplet nuclei (the particles left after the water has evaporated). Legionellae are common in natural sources of water such as rivers and ponds. They may enter man-made systems or water services, where they can multiply under certain conditions and, if there is a means of creating and transmitting water droplets, people in the vicinity may be at risk. Most cases and outbreaks of Legionellosis have been attributed to water services in buildings, cooling towers and whirlpool spas. Other sources have been identified in foreign outbreaks including a humidification system, industrial coolants and respiratory therapy equipment.

SCOPE

This policy provides guidance for all parts of the Alderley Edge School for Girls Estate involving a work activity and or premises where water is used or stored and where there is a means of creating and transmitting water droplets, and thereby causing a reasonably foreseeable risk of Legionellosis.

DEFINITIONS

Duty Holder

The Head Teacher is the School's 'duty holder'. The Approved Code of Practice (ACoP) L8 requires the duty holder to appoint a "Responsible Person" to take responsibility for the day-

to-day management of the water systems. This person shall be hereafter referred to as the “Responsible Person”.

The employment of contractors or consultants to implement the necessary controls to prevent the proliferation of legionella bacteria can be implemented, but the responsible person must ensure they are competent to undertake the tasks required.

The Responsible Person

The “Responsible Person” should be a director or a manager and shall have sufficient authority to act on behalf of the Duty Holder.

GENERAL POLICY STATEMENT

All reasonable steps will be taken to identify potential legionellosis hazards in the workplace and to prevent or minimise the risk of exposure.

If employees are concerned about the risk of an outbreak, they should report concerns to their line manager so that the School can take appropriate measures to eliminate or reduce the risks.

Where potential exposure to infection cannot be prevented, there is a written control scheme to minimise exposure. The Estates Department holds managerial responsibility for implementing and supervising the scheme.

RESPONSIBILITIES

Head Teacher

The Head Teacher shall undertake the duties of the “Duty Holder” and appoint a person to take day-to-day responsibility for controlling any identified risk from legionella bacteria. Having made the appointments the Head Teacher is to have in place suitable and sufficient monitoring regimes to ensure that their responsibilities are being discharged.

Responsible Person

The Estates Manager is the “Responsible Person” and shall ensure that a suitable and sufficient assessment is conducted in order to identify and assess the risk of exposure to legionella from work activities and water systems on the premises under the control of the Head Teacher, and any necessary precautionary measures required to reduce the risk of exposure to as low as reasonably practicable.

The “Responsible Person” is to ensure that organisations such as water treatment companies or consultants together with School staff are competent and suitably trained and have the necessary equipment to enable them to carry out their duties in a safe and proper manner.

The “Responsible Person” shall ensure that appropriate records are kept, including:

- Details of the persons responsible for managing, conducting the risk assessments and implementing a written scheme.
- The significant findings of the risk assessments and any remedial action taken.
- The written scheme required for controlling the risk to exposure and details of its implementation.
- The dates and results of any monitoring, inspections, tests or checks carried out, including information as to whether the system is in operation or not.
- Calibration certification of temperature measurement equipment used.

The above-mentioned records should be retained for a minimum of five years.

Appointed Persons

Appointed persons are typically Estates Department staff specifically charged with:

- Checking temperature control / foreign bodies etc. in water systems and reporting concerns to the Responsible Person and the Estates Department.
- Being responsible for implementing and maintaining waterlog books in accordance with guides.
- Advising any changes to the water systems to enable the risk assessment / written scheme to be updated accordingly.
- Carry out routine testing and maintenance in accordance with the findings of the external risk assessment. In any case this will include routine water temperature checks, de-scaling and cleaning of water equipment including showerheads and regular flushing through of outlets not in regular use.
- Undertake the periodic temperature testing programme. In the event of difficulties in implementing the risk control programme or test results falling outside of the required limits, they will report this immediately to the Estates Manager or Director of Finance & Operations and action is taken as necessary to resolve the problem.
- Maintenance and testing logs will be kept up-to-date and readily available for inspection.
- Attending appropriate training courses arranged by the School.

Records of regular monitoring, servicing and maintenance will be kept by the Estates Staff. Oversight of this process is the responsibility of the Estates Manager. The water systems will be monitored regularly, and as summarised in the table of Routine Control Actions found at Appendix 1. Any changes or modifications to the plant, equipment or pipe work infrastructure must be properly documented. This is the responsibility of the Estates Manager.

The Director of Finance & Operations, with support from the external service provider company will ensure that appropriate training is provided for the persons managing the water systems at the site.

Employees

All water system operators and maintenance staff should take reasonable care of themselves and conduct their duties safely by following the instructions and training provided.

COMPETENCE

Those who are appointed to carry out the control measures and strategies should be suitably informed, instructed and trained and have their suitability assessed. They should be trained to a standard which ensures that tasks are carried out in a technically safe and competent manner. Competence is dependent on the needs of the situation and the nature of the risks involved. To maintain competence periodic refresher training should be provided and records maintained of all training undertaken. Although training is an essential element of competence, experience, knowledge and other personal qualities are needed to undertake their role safely.

HEALTH SURVEILLANCE

People exposed to significant occupational risk of infection will receive instruction about the nature of the risks and the means of controlling exposure. Staff should report relevant symptoms.

ACTION IN THE EVENT OF AN OUTBREAK

There is a contingency plan in case of an outbreak of Legionellosis. This will include the:

- Identification of people who may have been exposed.
- Involvement of public health authorities.

- Dissemination of information to employees and other interested parties as to the nature of the risks.

Cases of Legionellosis are reportable under the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR). A confirmed case of Legionellosis (i.e. by a GP or medical practitioner's note) must be reported by the employer in accordance with procedures.

Where the above applies to a member of staff or contractor working on the School Site then the incident must be reported as follows:

- On receipt of the GP or medical practitioner's note confirming a case of Legionellosis the line manager is to report to the Director of Finance & Operations who in turn will report the incident to the RIDDOR Incident Contact Centre.
- Where there is a confirmed case of Legionellosis reported to the Director of Finance & Operations, details of where the person works etc. should be passed to the Duty Holder and Responsible Person.

SELECTION AND TRAINING OF STAFF

Persons carrying out control measures will receive appropriate training and supervision to ensure they are able to perform their duties competently.

All personnel required to assess risk and apply controls must be competent, adequately trained and aware of their responsibilities. Water system operatives and maintenance staff must also be suitably trained to ensure that their tasks are conducted in a technically competent manner.

Refresher training should be provided at intervals not exceeding two years. If there is a significant change/modification to the system or written procedures, appropriate training must be provided immediately with adequate supervisory support.

RISK ASSESSMENT

Hazard identification as part of the risk assessment process should identify the need for an assessment of risk from exposure to Legionella associated with work activities and water systems on the premises, including any necessary control measures. The assessment should include:

- Identification and evaluation of potential sources of risk.
- The particular means by which exposure to Legionella is to be prevented, or
- If prevention is not reasonably practicable, the particular means by which the risk of exposure from Legionella is to be controlled.

Where the risk assessment demonstrates that there is no reasonably foreseeable risk or that the risks are insignificant and unlikely to increase, no further assessment or measures are necessary. However, should the situation change, the risk assessment must be reviewed and any necessary control measures implemented.

The risk assessment will be contracted by an external company and must be reviewed every two years (as a maximum) or earlier if there is reason to believe that the original assessment is no longer valid.

SAFE SYSTEM OF WORK

A comprehensive programme of hazard control should reduce the risk of occupationally acquired Legionellosis to a very low level in most workplaces.

Avoidance of Conditions Favouring Growth of Organisms

As far as practicable, water systems should be operated at temperatures that do not favour the growth of Legionella. The recommended temperature for hot water is 60°C and either above 50°C or below 20°C for distribution, as care must be taken to protect people from exposure to very hot water.

The use of materials that may provide nutrients for microbial growth should be avoided. Corrosion, scale deposition and buildup of bio films and sediments should be controlled, and tanks should be lidded.

Avoidance of Stagnation

Dead-legs, which occur when water services leading from the main circulation water system to taps or appliances are used only intermittently, and other parts of systems which may provide a reservoir for infection should be eliminated.

Minimisation of Water Sprays

The dissemination of organisms should be reduced by careful design of equipment and the use of drift eliminators to stop excessive circulation of potentially contaminated air or enclosure.

System Maintenance

Water systems should be disinfected by an effective means before being taken into service and after shut downs of five or more days. Plant must be regularly and effectively inspected and maintained (e.g. by monthly visits from a water treatment specialist). Plant should be disinfected periodically (normally twice yearly) by chlorination or by temporarily raising water temperatures. Biocides may be used to control microbial growth. Maintenance personnel must wear appropriate protective clothing.

Sampling

Sampling for Legionella should not normally be necessary, unless in the case of an outbreak or to monitor the effectiveness of precautionary measures. Weekly monitoring of chemical and microbiological water quality may give a useful indication of the state of the system.

Maintenance Procedures

Staff involved in plant maintenance or who might otherwise be at significant risk will require safe systems of work. The following should be their priorities:

- Design procedures to minimize exposure, e.g. by prior disinfection.
- Avoid creation of water sprays, e.g. by high pressure jetting.
- Avoid exposure of others in the building to water sprays, e.g. by carrying out maintenance out of normal working hours.
- Wear HSE-approved respiratory protection, normally high efficiency, positive pressure respirators with either a full face piece or hood and blouse.
- Take necessary precautions when entering confined spaces, e.g. permits to work.
- Handle biocides and water treatment chemicals with care.
- Report relevant symptoms of illness to the Estates Manager immediately.

RECORD KEEPING

Accurate and comprehensive records are essential in order to demonstrate that due diligence and reasonable precautions have been put in place in order to avoid non-compliance with the regulations.

All Legionella related documents arising from activities will be retained and controlled by the “Responsible/Appointed Person” in order to fulfil the above requirements.

The following to be formally recorded:

- Names of people responsible for carrying out various tasks under the written scheme.
- A Risk Assessment and written scheme of action and control measures.
- Plans or schematic drawings of the system.
- Details of precautionary measures carried out including dates and evidence to suggest. That these have been carried out correctly.
- Remedial work required and carried out including dates.
- Log detailing visits by contractors consultants and other personnel.
- Cleaning and disinfection.
- Results of analysis of water samples.
- Training records of personnel.
- Name and position of people or persons who have responsibilities for implementing the scheme, their respective responsibilities and their lines of communication.
- Current state of operation of the system.
- Signature of the person carrying out the work where appropriate.
- Calibration certification of temperature measurement equipment used.

Records to be retained for at least five years.

SUMMARY POLICY STATEMENT

Legionellosis is a serious and potentially fatal disease in susceptible persons. Ensure:

- All systems in the workplace that could be a potential source of infection are identified and assessed for risk.
- A control scheme is implemented to ensure the risk of exposure is minimized.
- Special instructions are issued to plant maintenance staff.

Legionella Routine Control Actions

Item	Task	Who	Frequency
Whole Site	Risk Assessment carried out by competent person and report issued. It should be reviewed if any significant changes are made to the plant or pipe work.	Mitie External Company	Every two years
Showers and spray outlets	Where showers and spray outlets are not in use or are used less than weekly, the outlets need to be flushed on a weekly basis to prevent stagnation in the supply pipe work by the and records kept.	Estates Team	Weekly
	Dismantle, clean and de-scale all showerheads and spray nozzles to minimise the risk of colonisation by Legionella.	Mitie	Quarterly
Hot & cold water outlets	Where rooms or outlets are not in use or are of low usage, the outlets should be flushed on a weekly basis to prevent stagnation in the supply pipe work and records kept.	Estates Team	Weekly
	Temperatures at Sentinel outlets shall be checked on a Monthly basis and recorded in the Legionella Management Plan. Control: Hot outlet or supply to TMV >50oC after one-minute running. Cold outlet <20oC after two minutes running.	Estates Team	Monthly
	Temperatures at all outlets shall be checked on an annual basis and recorded in the Legionella Management Plan. Control: Hot outlet or supply to TMV >50oC after one-minute running. Cold outlet <20oC after two minutes running.	Mitie	Annually
Hot Water Calorifiers	Flow temperature checks should be made on any calorifiers on at least a monthly basis and the temperatures recorded. Control: Flow >60oC, (Return >50oC. where appropriate)	Estates Team	Monthly
	Where a drain cock is fitted to the calorifier, the condition of the drain water should be checked and recorded at least annually. Where feasible the condition of the internal surfaces of the calorifiers should also be checked and recorded.	Mitie	Annually
Cold Water Tanks	Tank inlet and stored water temperatures need to be checked and recorded in the Legionella Management Plan. Control: < 20oC.	Mitie	Six monthly
	Cold water tanks shall be inspected for internal and external condition at least annually. An annual check on the water turnover of the systems shall also be	Mitie	Annually

	made. Ideally water storage volume should not exceed 24 hours supply for the system being fed.		
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