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1. Purpose

1.1. It is the policy of West Berkshire Council (WBC) to ensure that appropriate precautions for the control of Legionella bacteria are identified through a 'Legionella' risk assessment process and implemented to ensure, so far as is reasonably practicable, the health, safety and welfare of its employees and others who may be affected by our work. The minimum standards to be met include;

- Preparation of a written scheme for preventing or controlling the risk
- Implementation, management, monitoring and recording of precautions to include regular inspection, microbiological monitoring, temperature checks and flushing.
- Seeking suitable advice and assistance from specialist competent persons.
- Appointment of a person or persons to be managerially responsible.
- To otherwise meet the requirements of the Approved Code of Practice; 'legionnaires disease; The Control of Legionella bacteria in water Systems. 2000 (L8)'

2. Scope and Application

- 2.1. This policy applies to all water systems including hot and cold water supply systems, spa baths, pools and showers where WBC is either the 'employer' or is in control of the premises.
- 2.2. In accordance with the WBC's 'Statement of Policy on Health Safety and Welfare, Directors are responsible for applying the Council's Health and Safety Policy within their respective Service Areas through the arrangements detailed within the 'responsibilities' section of this Code of Practice.
- 2.3. Within Community and Voluntary Controlled schools, WBC is the employer and as such requires schools to meet the minimum standards defined within the above policy statement. Although these schools may put in place their own arrangements to meet these standards it is advised that adoption of the arrangements in section 3 may be the simplest option for the school. This policy does not apply to Foundation or Voluntary Aided Schools (as the Governing body is the 'employer') although they may wish to adopt this as a ready-made means of securing legal compliance.

3. Background

- 3.1. Legionella bacteria are naturally present in the environment and if water conditions are favorable to the bacteria i.e. warm, nutritious and stagnant, they will proliferate. Disturbance of this 'contaminated' water can cause tiny droplets to become airborne which, if inhaled, can cause a potentially fatal type of pneumonia called legionnaires disease. Those people especially at risk are the old or those who are ill as their immune system is less able to fight the disease.
- 3.2. Making sure adequate & appropriate management arrangements exist for controlling Legionella is a Legal requirement defined within "Legionnaires disease; The Control of Legionella bacteria in water systems'. Approved Code of Practice and Guidance L8" (third edition 2000). The purpose of the Council's Code of Practice (COP) is to define the split in responsibilities between parties owing a duty of care in this respect.
- 3.3. The following Code of Practice defines the system by which WBC manages the risk from Legionella and is focused upon preventing water conditions 'favorable' to the bacteria existing in any of the councils managed water systems including hot and cold water services, spa baths, pools and showers. This requires the commitment of both the Council as the 'landlord' and the occupants of the building.

- 3.4. This Code of Practice excludes detailed technical guidance, which is readily available within various publications (see section 6 for further information and guidance).

4. Definition of Terms

Legionella. *A potentially dangerous type of bacteria, which grows best in warm, nutrient rich water (including domestic water systems).*

Legionella Risk Assessment *A specialist type of risk assessment carried out by a water quality specialist.*

Responsible Person (RP) who manage schools / premises. *The RP or Local Appointed Person who has 'control' of the building and its facilities. Where buildings or sites are shared or disputed then there is a legal requirement to appoint a single manager or committee with overall control.*

Local Competent Person (CP). *e.g. Facilities staff / caretaker who is appointed by the RP to perform water checks and to record these in the log book provided.*

Log Book. *A record book provided to record all local checks and tests carried out e.g. hot water temperatures.*

Maintenance. *Cleaning, repair, tests etc required to minimise bacterial growth. Split between the WBC Property Services maintenance contractor and the Local appointed person.*

5. Responsibilities

5.1. Corporate Directorators

- 5.1.1. Provide suitable and sufficient resources for Heads of Service and management in order for them to carry out their duties and responsibilities in accordance with this Code of Practice.
- 5.1.2. Monitor the application of this procedure.

5.2. Heads of Service

- 5.2.1. Formally identify the manager who will be responsible for each premise.
- 5.2.2. Allocate a named person(s) to act as a contact for authorising Legionella maintenance expenditure.

5.3. Responsible Person - who are responsible for premises

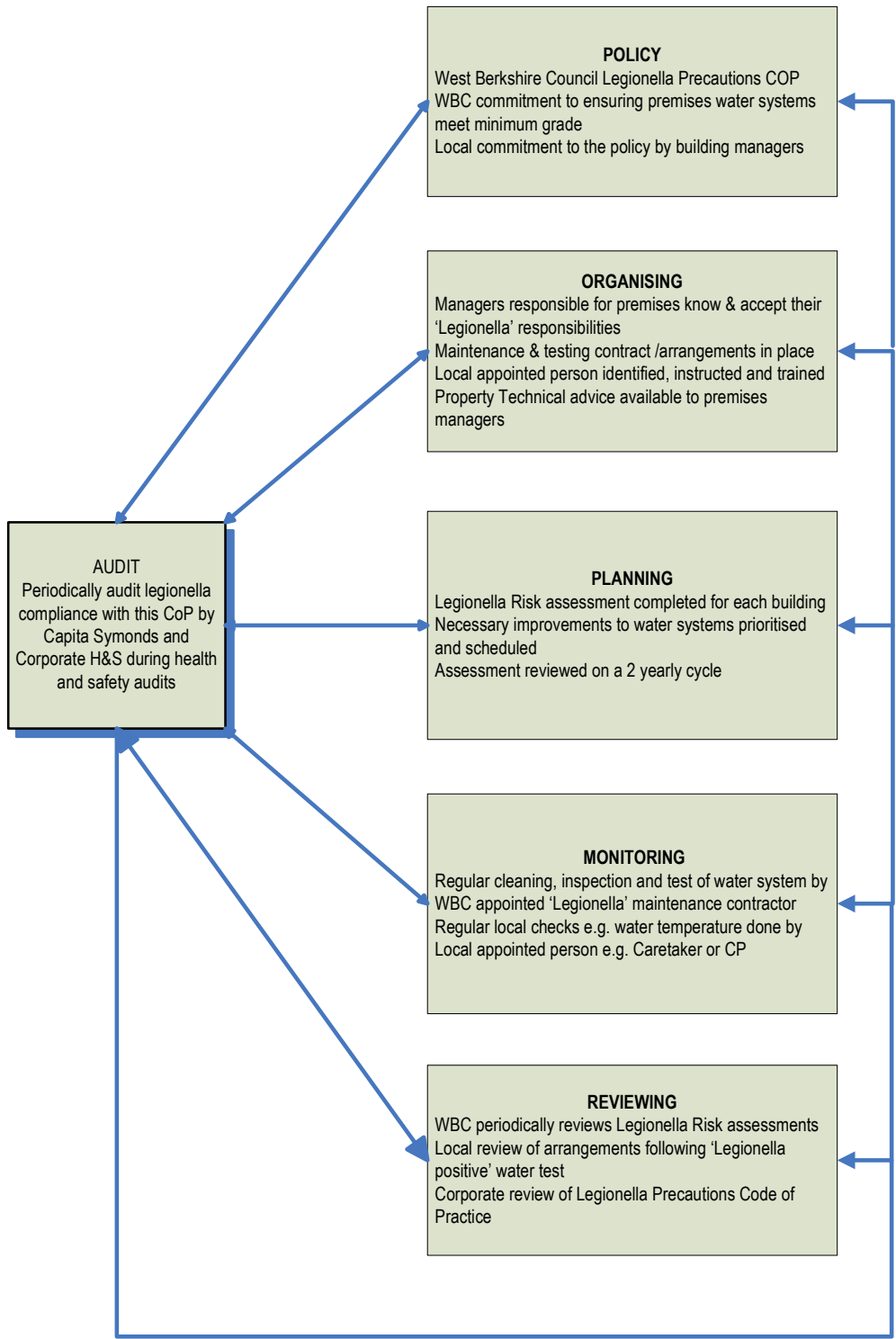
- 5.3.1. Ensure the Legionella risk assessment addresses all water systems in the premises.
- 5.3.2. Buy in to the Property Services corporate maintenance contract OR ensure an equal standard is met i.e. 'Approved Code of Practice L8'. (the latter is not recommended but if taken, specialist advice should always be sought).
- 5.3.3. Identify, appoint, instruct and train a member of staff to carry out regular visual inspections and temperature checks in accordance with the log book. An appropriate thermometer should also be provided and maintained for this purpose e.g. digital probe thermometer.
- 5.3.4. Notify WBC of any alterations to the water systems e.g. use premises alteration form.
- 5.3.5. Monitor the controls to ensure they remain effective. e.g. inspect log book to ensure maintenance and inspections are actually done and recorded.
- 5.3.6. Ensure the risk of Legionella is considered at the design stage of any building/ structural alteration project. Notify WBC.

- 5.3.7. Keep records to provide evidence you are complying with the above standards
- 5.3.8. Notify the Head of Property and the Assurance Manager of any planned or unplanned visits by any enforcement authority (i.e. Thames Water, HSE).
- 5.3.9. Notify any problems with the water system / Legionella precautions immediately to Property Services and Compliance Officer.
- 5.3.10. Monitor the works of any contractors carrying out work on any water systems in the premises for which you are responsible.
- 5.4. Building Competent Person(s) (for each premises)
 - 5.4.1. Complete the log book (see template at appendix 8.2) ensuring instructions are followed (appendix 8.1). Contact Property Services for any additional advice and support. Ensure contractors complete log requirements.
 - 5.4.2. Notify any concerns/abnormal results to the Responsible Person.
- 5.5. Staff
 - 5.5.1. Do not interfere with water systems/Legionella precautions/equipment in any way.
 - 5.5.2. Follow any instructions provided by the manager responsible for the premises.
 - 5.5.3. Notify any problems with the water system/Legionella precautions immediately to the manager responsible for premises. (see appendix 7.5 for more detail)
- 5.6. Property services
 - 5.6.1. Supply a service to appoint and monitor compliance with an appropriate 'Legionella' maintenance contract covering WBC buildings.
 - 5.6.2. Arrange a specialist contractor to carry out and regularly review 'Legionella' risk assessments for water system facilities.
 - 5.6.3. Arrange a specialist contractor to carry out remedial works/recommendations arising from risk assessments.
 - 5.6.4. Arrange and instigate necessary remedial works following recommendations on contract service report and/or the identification of a 'Legionella positive' water sample for buildings under WBC Control.
 - 5.6.5. Provision of advice and support in relation to this Code of Practice.
 - 5.6.6. Monitor compliance with the requirements of this COP and provide timely reports to the Head of Property Services.
 - 5.6.7. Ensure the risk of Legionella is considered at the design stage of any building/ structural alteration project.
- 5.7. Corporate Health and Safety Team
 - 5.7.1. Provide Training for managers responsible for premises (e.g. part of the 'Buildings Competent Persons' safely course).
 - 5.7.2. Provision of advice and assistance in support of this Code of Practice.
 - 5.7.3. Periodically audit building arrangements for appropriate Legionella precautions (Senior Corporate Health & Safety Adviser, Senior Schools Safety Adviser and Compliance officer.)
- 5.8. Maintenance Contractor (Legionella)
 - 5.8.1. Conform with the requirements of the corporate Legionella contract.

6. Flow Diagram/Procedure

OVERVIEW OF LEGIONELLA PRECAUTIONS MANAGEMENT

6.1. The following figure provides an overview of Legionella management precautions in WBC.



7. Training

- 7.1. (RP & CP) Training to support managers responsible for premises, including their responsibilities under this policy will be provided as part of the corporate health and safety training programme. Contact Learning and Development for more details.
- 7.2. Managers responsible for premises must ensure the Competent Person nominated to perform temperature checks etc. fully understands the instructions provided at appendix 8.1. If required, further support, advice & training is available from Property Services and Health and Safety.
- 7.3. Managers must ensure records of all training & instruction are held.

8. Advice and further information

- 8.1. Further advice, information and guidance to support this procedure can be obtained from a number of sources including;
 - Property Services Manager: 01635 519831
 - Property Helpdesk: 01635 519869
 - The Health & Safety Team: 01635 519(863/942/174) and 01635 503244
 - The Compliance Officer: 01635 519204
 - West Berkshire Intranet site (see Health and Safety link)
 - The Directorate specific Intranet site
 - The Internet e.g. the official Health and Safety Executive website <http://www.hse.gov.uk/>.
 - COSHH Regulations 1999 (including the General and Biological Agents ACOP).
 - Legionnaires' Disease; The Control of Legionella bacteria in water systems. Approved Code of Practice 2000 (L8).
 - IND (G) 253(L) Controlling Legionella in nursing and residential care homes.
 - HS(G) 104 Health & Safety in Residential Nursing Homes

Appendix 7.1 Log book completion Instruction

(for use by Buildings Competent Person/s)

Introduction

This log book has been prepared to comply with the Approved Code of Practice 'The Control of Legionella bacteria in water systems 2000' (L8). The required actions to control the risk from Legionella are split between a council appointed maintenance contractor (conducting more technical aspects seen as the shaded part of the log) and each site (nominated person) conducting e.g. water temperature checks. These can be carried out by a Competent Person /caretaker to help reduce costs. The water services you have within your premises will determine the frequency of visits and tasks required to be carried out under these regulations, generally as defined in the following log book.

Thermometers (purchasing and maintenance)

In order to check water temperatures you are required to purchase and maintain a basic thermometer suitable for checking water temperatures range 0 °C - 100 °C e.g. digital probe thermometer. These are widely available and cost only a few pounds. To ensure the thermometer remains accurate you should calibrate this annually. The simplest way to do this is to use boiling water and crushed ice water to check 100 °C and 0 °C respectively. Adjust accordingly and keep records. If more than 1 °C out then please purchase a new thermometer.

Completing and recording water temperatures

Water temperature record sheets need to be filled in and kept within the logbook. You need to record the water temperature from every tap at least once annually. It is usual to spread this over the 12 months. I.E. if you have 24 taps you need to sample 2 per month. Outlets failing to meet the required temperature should be reported for suitable action and retested in subsequent months until satisfactory. Hot Water should be at least 50°C after 1 minute and cold water below 20°C after 2 minutes flow. Also record temperatures monthly from hot water cylinders.

All electronic temperature recording equipment must be calibrated and maintained to ensure accurate recording takes place. Minimum certificated calibration check 12 months. Where temperature gauges are not present suitable surface thermometers may be required.

Flushing infrequently used taps and showers

Water left in pipes for long periods can allow Legionella bacteria to multiply presenting a risk when finally discharged e.g. school showers after summer holidays. Identify infrequently used taps and showers on the 'Weekly flushing record sheet' and record when flushing takes place. Flush each tap/shower for several minutes to ensure stagnant water is fully discharged. Flush all sentinel taps monthly.

Health and Safety

Completion of the above checks presents little risk to health and safety. Perhaps the greatest risk arises from potential contact with scolding water from hot taps where care should always be taken. Flushing infrequently used 'dead legs' could present a small risk of legionnaires disease if the water is agitated and droplets become airborne. Always flush 'dead legs' carefully to ensure this does not happen. Placing a plastic bag over showerheads while flushing is one means of achieving this.

Further Information

First point of contact if you have any queries contact:
Property Services Manager: 01635 519831 Helpdesk: 01635 519869
Second point of contact Compliance Officer: 01635 519204

Appendix 7.2 Log book template (for use by Buildings Competent Person(s)).

All WBC sites have been issued with an **ENVEX** Legionella Log Book which is the recommended document for recording the required data. The checklist and recording sheets attached with this Code of Practice are to ensure that all appropriate information and suitable recording formats are available where the **ENVEX** log book does not exist. Contact Property Services for further information as to where an **ENVEX** Legionella Log Book can be obtained.

Property Services Helpdesk: 01635 519869

HOT AND COLD WATER SYSTEMS CHECKLIST

BUILDING:NAME OF APPOINTED PERSON				
Action	Interval	Record results on	Month/ Date	Signed
Check calorifier secondary return water temperatures are above 50°C.	Monthly	<i>Hot Water Record Sheet</i>		
Record calorifier temperature from gauge	Monthly	<i>Hot water storage / calorifier sheet</i>		
Check cold-water temperatures at remote and little-used outlets. Note time to reach minimum temperature.	Monthly	<i>Cold Water Record Sheet</i>		
Check hot water temperatures at remote and little-used outlets.	Monthly	<i>Hot Water Record Sheet</i>		
Weekly flushing of outlets, especially taps and showers not in regular use. These should be carried out and dates logged.	Weekly	<i>Weekly flushing record sheet</i>		
Check accuracy of thermometer and record date of check	Annually	<i>Make note in file</i>		
Showerheads and hoses dismantled cleaned, de-scaled and disinfected	Quarterly			
Check incoming cold water inlet temperature	Six Monthly			
Samples to be taken from cold water tanks for laboratory analysis for TVC*	Annually			
Samples to be taken from calorifier drain for laboratory analysis for TVC*	Annually			
Check water temperature in tank. Record results on <i>Cold Water Record Sheet</i>	Annually			
Check internal condition of cold water storage tanks, note appearance of water, stagnation, odour, rust scale, sediment, debris, paint/liner, condition and biofilm accumulation	Annually			
Check accuracy of calorifier temperature gauges and thermostat operation	Annually			
Check the condition of accessible pipework and insulation	Annually			
Check that cleaning and chlorination of all storage-fed water services have been carried out by inspecting certificates/reports, etc.	Annually			

Shaded areas denote corporate contractors responsibilities. See contractors service sheets for further information on these checks.

Further information:

Use the above checklist to keep up to date with water systems maintenance requirements for your site.

N/A to items not relevant to your site, i.e. you may not have showers.

Fill in dates of when work is carried out and initial in the signed columns.

See further Record sheets .

Appendix 7.3 Local Management Plan for Legionella Risks in Water Supply System.

Building Name :

Responsible Person:

Competent Person:

Specialist Risk Assessment undertaken by:
(Company Name)

Risk Assessment (RA) Date: **RA Renewal Date:**

Does RA Contain an Action Plan for REMEDIAL work? (Yes / No)

Does RA Contain an Action Plan for ROUTINE MAINTENANCE work? (Yes / No)

If REMEDIAL work required, date completed:

Routine water temperature checks and routine flushing will be undertaken by;

Quarterly Cleaning/Disinfection of Showerheads & Hoses will be done by :

(NOTE: All temperature checks & flushing to be recorded in Legionella Log Book)

Does Risk Assessment require Bacteriological Water Testing? (Yes/No):

If yes, list the last 4 results;

Date	Sampling Company	Sample Location	Pass/ Fail

Appendix 7.4 Test Equipment : Calibration

Ice Water Method for Calibrating Thermometer

Equipment and Materials Required.

Large glass container (15.0cm height and 10.0cm diameter)

Thermometer

Watch

Ice, crushed

Cold Water

Method

1. Fill glass container with crushed ice.
2. Add cold water to within 2.5cm of top of container. Stir mixture well and stand for one minute.
3. Insert thermometer in to the centre of the crushed ices, so that the sensing area of the probe is completely submerged.
4. Do **NOT** let the thermometer probe touch sides or bottom of container
5. After 30 seconds then take a reading and note on log sheet.
6. If the thermometer has a reset button, push.
7. Repeat process with each thermometer.

Thermometers

In order to check water temperatures you are required to purchase and maintain a basic thermometer suitable for checking water temperatures range 0 °C - 100 °C e.g. digital probe thermometer. These are widely available and cost only a few pounds. To ensure the thermometer remains accurate you should calibrate this annually. The simplest way to do this is to use boiling water and crushed ice water to check 100 °C and 0 °C respectively. Adjust accordingly and keep records. If more than 1 °C out then please purchase a new thermometer.

Hot and Cold Water Temperature Monitoring

A schedule for precautionary checks on hot, cold water taps and shower, which the responsible person should organise to be carried out at the frequencies indicated below. Where the temperatures fall outside the standards Health & Safety and Property Services should be immediately informed.

Appendix continued 7.4 Test Equipment : Calibration

Weekly Checks

Showers

Showers that are not in uses for over a one week period must be flush from 2 minutes at both maximum and minimum temperature.

A plastic bag should be secured over shower head with corner cut off to allow water to escape.

Monthly Checks

Taps

Temperature of cold water sentinel taps (nearest and furthest to the storage tank), to check that water is below 20 °C.

Run cold tap for 2 minutes then measure temperature by inserting calibrated digital thermometer in the water flow and record reading.

Temperature of hot water sentinel taps (nearest and furthest to the calorifier (water heater), to check that water is above 50 °C .

Run hot tap for 1 minute then measure temperature by inserting calibrated digital thermometer in hot water flow and record reading.

Appendix 7.5 Key actions in the event of positive test results

In the event of a positive temperature test result being noted, (ie either Hot water below 50c or cold above 20c) by the RP or CP the following actions should be carried out.

If hot water

- then the boiler settings need to be reviewed to ensure that the temperature can be raised.
- Further additional temperature checks should be made after 48 hours to ensure that the problem does not persist.
- If the temperature can not be raised to the required level then further action needs to be taken to ensure the boiler is serviced / checked.

If cold water

- then the situation should be monitored more closely for a period.
- In the event that the temperature remains above the required 20c then further advice needs to be sought from Property Services.

In either case if monitoring indicates an ongoing issue then the water supply must be tested by a suitably qualified contractor to ensure that Legionella is not present in the water supply.

In the event that a test of the water supply indicates that Legionella is present in high concentrations then the following actions need to be carried out:

- To inform the Assurance Manager immediately. The Assurance Manger will contact relevant officers to ensure that the issue can be monitored, including the Council's Environmental Health Team.
- To shut down any processes which are capable of generating and disseminating airborne water droplets and keep them shut down until remedial cleaning or other work has been done.
- To immediately arrange emergency disinfection be undertaken if required.
- Depending on the client group or staff group that may have been exposed – monitor client / staff health to discern whether there are any undiagnosed cases of illness.