The Control of Legionella Procedure

Contents

1.0 Scope
2.0 Introduction
3.0 WHA’s duties under the law
4.0 Identification and assessment of risk
5.0 Risk assessment procedure - WHA
6.0 Preventing and controlling risk
7.0 Managing the risk
8.0 Record keeping
9.0 Response to an outbreak
10.0 Monitoring and evaluation/quality assurance
11.0 Review
12.0 Useful links/guidelines/appendices

Page
2
2
2
3
4
4
5
6
6
7
7
7
1.0 Scope

1.1 This procedure applies to all parts of Westway Housing Association (WHA) except where a landlord of the Partnership has its own procedure in place.

1.2 This procedure is divided in two parts:
   - Part 1 explains WHA’s duties under the law
   - Part 2 provides some guidance on the technical aspects of the control and management of legionella risks.

2.0 Introduction

2.1 The purpose of this procedure is to provide a comprehensive set of instructions to WHA staff regarding the management and control of legionella in all WHA properties, buildings and offices.

2.2 Legionella are bacteria that are common and can be found in environmental water sources such as lakes, rivers and reservoirs as well as in artificial cold and hot water systems (i.e. storage tanks, taps, showers, pipe work etc.), although legionella presence is usually associated with large water systems used in hospitals, schools etc., it can also be found in smaller water supply system used in homes and in other residential accommodation.

2.3 Legionnaire’s disease is a potentially fatal pneumonia caused by legionella bacteria. It is normally contracted by inhaling viable legionella bacteria in a sufficient quantity, either in tiny droplets of water (aerosols) or in droplet nuclei (the particles left after the water has evaporated) from water contaminated with legionella, deep into the lungs.

2.4 Legionella’s behaviour at water temperature is:
   - Between 0°C – 20°C legionella will remain dormant
   - Between 20°C - 45°C legionella will multiply
   - Between 46°C – 70°C legionella will not multiply and will die in time
   - Above 70°C - no viable legionella

3.0 WHA’s duties under the law

3.1 Under the general Health & Safety Law, as a landlord (and/or person in control of premises/responsible person) and an employer WHA must:
   - Identify and assess sources of risk
   - Prepare a course of action for preventing and controlling the risk
   - Implement and manage any identified courses of action by appointing a person/s to have management responsibility (also known as the ‘responsible person’)
• Keep records and check the effectiveness of past actions completed
  If appropriate, notify the local authority of ownership of a cooling tower on site

4.0 Identification and assessment of risk

4.1 Existing properties

4.1.1 WHA owns a variety of self contained flats and maisonettes, houses in multiple occupation. The Maintenance Surveyor will in consultation with the Housing Services Team, have the responsibility to assess the level of risk of the occurrence of legionella.

4.1.2 WHA will continue their legionella risk assessment programmes to determine compliance with the requirements of the control and management of legionella, under the Health & Safety Law. This will be carried out on a high-low risk basis of the WHA buildings:

  • Houses in multiple Occupation • WHA offices
  • Any other premises that are believed to be at a high risk

4.2 Identification of installations at risk

4.2.1 Legionnaires Disease is most commonly caused by the inhalation of contaminated water droplets. It is therefore necessary to identify the sources of possible infection where respirable water sprays or aerosols are created.

4.2.2 The Approved Code of Practice (ACOP) and Guidance (L8) require that all systems susceptible to colonisation by legionella and which may create water droplets must be identified and then risk assessed.

5.0 Risk assessment procedures – WHA

5.1 The ACOP clearly states the requirement for employers and others to undertake assessments to establish the risk of Legionella (Appendix 1). The risk can be dealt with by identifying potential sources of transmission and preventing conditions that may allow the proliferation of the legionella bacteria.
  • The presence of the bacteria
  • Condition of the water and the existence of suitable conditions for the organism to grow and multiply in the storage and distribution systems, i.e. suitable temperatures ideally between 20°C and 45°C and a source of nutrients e.g. organic matter such as sludge, scale, rust or algae
  • The presence of people
• Means of creating an aerosol or small breathable droplet such as the ones from a shower, fire-sprinkling system, hosepipes, spray taps in sinks and wash hand basins and so on

5.2 A site survey of the water system(s) should be undertaken for each building and it should identify all plant and equipment such as humidifiers, cooler coils, calorifiers (hot water storage tanks), boilers and pumps etc. connected to water systems or producing water as a by-product of its normal working processes.

5.3 The assessment must be reviewed whenever there is a reason to believe that the original assessment may no longer be valid due to:
• Changes to the plant and water systems in use
• Changes to the use of the building
• The results of checks indicating that control measures are no longer effective
• The availability of new information about risks or control measures

6.0 Preventing or controlling the risk

6.1 WHA must have a written course of action that outlines WHA’s approach to control the risk from legionella.

6.2 WHA will design, maintain and operate water services under conditions which prevents or control the growth and multiplication of legionella and will:

- Avoid water temperature and conditions that help legionella growth (recommended temperature for hot water is 60°C (thermostats need to be set above 50°C and maintained at an appropriate level and an adequate insulation installed) or below 20°C for distribution (water can be stored with adequate insulation)

- Ensure that water cannot stagnate anywhere in the system by keeping pipe lengths as short as possible or removing them where applicable (known as dead-legs, which occur when, water services leading from the main circulation water system to taps or appliances, are used only intermittently)

- Avoid usage of certain materials that are prone to legionella growth (use of materials that may provide nutrients for microbial growth should be avoided)

- System Maintenance -keep water systems clean and treat water systems by disinfecting them before taking into service and after shut downs over five days or longer

6.3 It should be noted that hot water coming out of taps above 43°C poses the risk of scalding. Hot water pipes and radiators carrying water above 43°C could pose a hazard where vulnerable people may lean against them, e.g. residential homes. Ideally, water should be circulated at 50°C, with scalding hazards controlled by fitting thermostatic control valves (TCV) to radiators and to the water supply for baths, showers and hand basins.
7.0 Managing the risk

7.1 WHA will appoint ‘the responsible person/contractor’ for all of our operational areas. The responsible person needs to have sufficient knowledge and experience to appoint and manage specialist contractors in relation to legionella.

7.2 The responsible person needs to ensure that the water treatment to WHA buildings is carried out to a required standard, where work is carried out by a contractor or other third party.

7.3 ‘As-fitted’ drawings or a schematic diagram showing the configuration of services shall be produced as well as a description of the water system indicating the normal operating parameters, maintenance schedules and actions to be taken should abnormal situations occur. Where there is a risk, the significant findings should be recorded and employees informed.

7.4 Actions identified to control the risk should be monitored at suitable intervals to ensure effectiveness. They must be reviewed at least every two years or more frequently if changes to the system are made or risks change. A detailed list of considerations is contained in Part 1 of the ACOP.

8.0 Record keeping

8.1 Records should be kept for a minimum of five years.

8.2 In order to provide an audit trail and compliance with the law, the records should include:
   - Details of risk assessments carried out
   - The written scheme or course of action
   - The names and responsibilities of the responsible person/s under the scheme
   - Details of the installation
   - Details of precautionary measures which have been carried out
   - Monitoring details (i.e. reports)
   - The signature of the person/s carrying out various tasks or other forms of authentification

9.0 Response to an outbreak

9.1 In the event of an outbreak of legionellosis, the “Responsible Person” will follow their emergency and/or contingency plan that should include:
   - Identification of people who may have been exposed
   - Involvement of Public Health Authorities
   - Notifying the members of the Senior Management Team
10.0 Date for review

11.1 This procedure was approved by ,,,,,,,,,,,,,, 2010

11.2 This policy will be reviewed 12 months after the above date

12.1 Links, guidelines and appendices

12.2 www.hse.gov.uk
    www.dwi.gov.uk/cpp/pagea.shtm
    www.wras.co.uk/publications/directory.htm