

# Legionella Risk Assessment



Client name:

Assessor name: Reference: 000 Assessment date: 16/10/2020 Property type: House

### Management responsibilities

Name of Duty holder: unknown Name(s) of responsible person(s): unknown

### **Existing information**

Does a policy exist which clearly lays out individuals' responsibilities? Unknown Are persons identified within the policy trained/competent? Unknown Have contractors been approved and are they competent? Unknown Does a written scheme of control currently exist for the property? Unknown Has a schematic drawing been supplied by the client? No

Is property currently occupied?\* Yes

\* Please note that if the dwelling is not occupied at time of inspection it is not possible to assess the risk of persons who may be vulnerable to Legionnaire's Disease. Therefore, the assessment will require review once the property is occupied. Properties which are unoccupied for periods of 2 weeks or more present a risk due to water stagnation- further details are contained in section 8 of this assessment.



# Contents

About Legionella	3
The Law	3
Level of Risk	4
Details of Water System(s)	5
Water temperature at outlets	6
Cold water Storage	9
Hot water Storage	10
Little used/unused Outlets	14
Shower heads, taps and other spray outlets	15
Blind ends in pipework	17
Spa pools/hot tubs/whirlpool baths	19
Unoccupied properties	20
Tenants	21
High Risk groups	22
Further photos	23
Duties of Care for Legionella Control	25
Assessment Summary	26
Certificate of Compliance	27
Schematic Drawing of Water System	28



# **About Legionella**

Legionnaires' disease is a potentially fatal form of pneumonia which is contracted by inhaling small droplets of water containing the Legionella bacteria.

Legionella bacteria are present in low numbers in natural water systems such as rivers and ponds, and can be present in domestic and commercial hot and cold water systems. If conditions are favourable, the bacteria may multiply to dangerous levels in 9-10 days and it is possible to contract Legionnaires' disease, or the less harmful Pontiac Fever as a result of exposure to contaminated water.

Legionnaires' disease mainly affects people in 'high risk' groups including those over the age of 45, new born babies, smokers, heavy drinkers, those with heart disease and anyone who has a weakened immune system.

# The Law

The control of Legionella in rented property is a legal requirement, and duties of care are placed on Landlords as 'self-employed persons'. House of Commons Briefing Paper 07307 (October 2015) states:

'Landlords of residential accommodation have a responsibility to take measures to ensure that their properties are free from health and safety hazards, this includes taking measures to combat Legionnaires' Disease.'

The duties of care placed on Landlords are detailed in the following generic HSE guidance and regulations:

- The Health and Safety at Work etc. Act 1974
- The Control of Substances Hazardous to Health Regulations 2002
- The Management of Health and Safety at Work Regulations 1999

Specific guidance on the control of Legionella bacteria is contained in the following publications:

- Legionnaires' Disease: The Control of Legionella Bacteria in Water Systems- Approved Code of Practice L8 2013 (HSE)
- Legionnaires' Disease: Part 2: The Control of Legionella Bacteria in Hot and Cold Water Systems HSG274 2014 (HSE)
- BS 8580-1:2019 Water quality. Risk assessments for Legionella control. Code of practice



# Level of Risk

The level of risk is determined by assessing the likelihood of a hazard occurring and the severity of the effects of the hazard. This Risk Assessment has been produced using a simple 6 level risk system as follows:

Rating	<b>Risk Level</b>	Details
None	No risk	There is no significant present risk and no action is currently required other than to ensure the risk assessment is reviewed at regular intervals.
Minor	Minor risk	There is a low risk but not under normal conditions. A written Scheme of Control is not required but could be implemented.
Low	Low risk	There is a low risk under normal conditions. A written Scheme of Control should be implemented and control measures detailed in this report followed
Medium	Medium risk	There is a significant risk but not under normal conditions. A written Scheme of Control is required and control measures recommended in this report should be followed, which may include changes to the design of the system.
High	High risk	There is a significant risk under normal conditions. A written Scheme of Control is required and control measures recommended in this report should be followed immediately, which may include changes to the design of the system and/or use of chemical disinfectants.
Critical	Critical risk	There is an immediate risk and urgent action is required. This may include isolation of the system and water sampling, and could include disinfection if necessary. A written Scheme of Control is required and control measures recommended in this report should be followed immediately. A further risk assessment is recommended following implementation of control measures.

Each risk factor is assessed individually and then an overall rating is given in the Assessment Summary section.



# **Details of Water System(s)**

#### Scope of assessment

The whole property

\*Please note that inaccessible sections of pipework such as those situated under floors or recessed in walls have not been inspected as part of this risk assessment.

#### Limitations

There were no limitations.

#### Type of hot and cold water system

**Initial questions** 

Is water from a wholesome supply? Yes Are all visible materials and fittings used suitable for application? Yes

#### Brief overview of system including boiler/water heater, rooms served and outlets

The cold water is supplied via a mains fed pressurised system. The hot water is supplied from a hot water cylinder which is heated by a gas boiler. There are hot and cold outlets to the kitchen sink and all of the bedroom ensuites.

#### Description of current control strategy, if any

none.



### Water temperature at outlets

1. Water temperature at outlets

Is cold water temperature below 20°C? Yes Highest recorded temperature (°C) 60 Is hot water temperature above 50°C at outlets? Yes Lowest recorded temperature(°C) 14 Are TMV's present? No Is hot water temperature from TMVs (if fitted) 39-43°C at outlet(s)? N/A

Issue(s) identified/comments

none

**Risk rating** 

Risk level 1 - Minor

Recommendation(s)

Photo of water outlet









#### Water temperature- control measures:

Ensure boiler/water heater is set to 60°C so that water reaches outlets at above 50°C. Ensure cold water does not exceed 20°C by making sure pipes and storage tanks are insulated. Ensure water temperature at outlets is 39-43°C where TMVs are fitted, or above 50°C at the hot pipe feeding the TMV if it is accessible. TMVs should be tested at least annually.



# **Cold water Storage**

#### 2. Cold water storage

Is a cold water storage tank present? No Is its location suitable? N/A Does it have a close-fitting lid and is it compliant with HSE guidance? N/A Is it insulated? N/A Is water in the tank free from rust, biofilms, scale and debris? N/A

#### Issue(s) identified/comments

none

Risk rating

Risk level 0 - None

Recommendation(s)

Photo of cold water storage

#### Cold water storage- control measures:

If rust is present on the tank it may require replacement. If debris, scale or biofilms are present in the tank it will require draining and cleaning out. A cold water tank should be constructed of a suitable material which is not prone to corrosion, have a close-fitting lid and comply with all other guidance given in document HSG 274, including being sufficiently insulated.



### Hot water Storage

#### 3. Hot water storage

Is a hot water cylinder present? Yes Is the cylinder insulated? Yes Is a cylinder thermostat present? Yes Is the temperature on the cylinder thermostat set to 60°C or above? No Is the temperature of the flow pipe 60°C or above? No Is the temperature of the return pipe 50°C or above? (recirculating systems only) N/A Does the overflow from the calorifier go to a tundish or drain? N/A Does the storage vessel comply with relevant HSE guidance? Unknown

#### Issue(s) identified/comments

The cylinder stat is set at 45 degrees, however the water is 60 degrees at the outlets. This suggests the stat may be faulty. Although this does not pose an immediate risk, as the temperature is good, should somebody change the stat to 60 degrees there may be a risk of scalding.

It would be advisable to have this checked by a suitably qualified contractor.

#### **Risk rating**

Risk level 1 - Minor

Recommendation(s)

Photo of hot water storage













#### Hot water storage- control measures:

Ensure hot water is stored at 60°C. The cylinder should be insulated to help maintain the correct temperature and to prevent heat loss. If a cylinder thermostat is fitted it should be set at the correct temperature and not adjusted. The overflow from a cylinder should go directly to a tundish or drain, not back into the cold water tank.



## Little used/unused Outlets

4. Little used/unused outlets

Are there any outlets which are used less than once per week? No

Issue(s) identified/comments

none

**Risk rating** 

Risk level 0 - None

Recommendation(s)

#### Photo of little used/unused outlets

#### Little used/unused outlets control measures:

Any little used outlets should be flushed through weekly by running the outlet for at least two minutes. Spray/aerosol production should be minimised when carrying this out. Consideration should also be given to removing little used outlets and dead legs (pipes leading to an outlet through which water flows but the outlet is unused/rarely used) where possible.



# Shower heads, taps and other spray outlets

5. Shower heads, taps and other spray outlets
Are there any showers present? Yes Are there any spray taps present? No Is there a garden hose present? No
Issue(s) identified/comments
none
Risk rating
Risk level 0 - None
Recommendation(s)

Photo of Shower heads, taps and other spray outlets





Shower heads and other spray outlets- control measures:

Any showers/spray/taps/garden hoses should be flushed through weekly. Shower heads and other outlets should be de-scaled at least every 3-6 months. Consideration should be given to replacing spray taps with normal taps.



# Blind ends in pipework

6. Blind ends in pipework

Are there any blind ends (lengths of redundant pipework which have been capped off) present? Yes

Issue(s) identified/comments

There is an outside outlet to the rear of the property which is uninsulated.

#### **Risk rating**

Risk level 1 - Minor

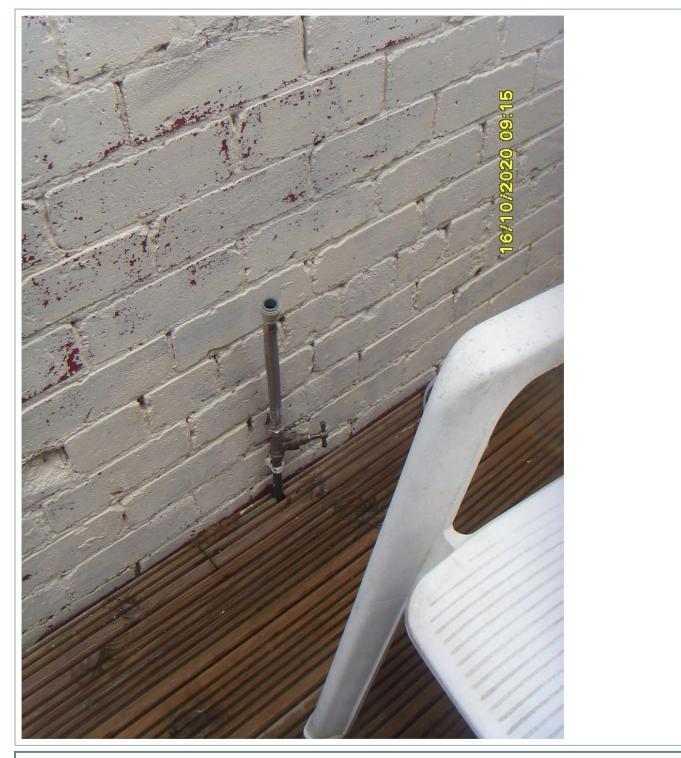
Recommendation(s)

This outlet should be lagged with appropriate pipe insulation to prevent the pipe bursting in freezing conditions.

Alternatively, the outlet could be removed if its unused.

Photo of Blind ends in pipework





### Blind ends in pipework- control measures:

Any blind ends in pipework should be removed to ensure water cannot stagnate in the water system.



### Spa pools/hot tubs/whirlpool baths

7. Spa pools/hot tubs/whirlpool baths
Is a spa pool/hot tub present? No Is a whirlpool bath present? No
Issue(s) identified/comments
none
Risk rating
Risk level 0 - None
Risk level 0 - None Recommendation(s)

Spa pools/hot tubs/whirlpool baths- control measures:

Spa pools/hot tubs and whirlpool baths should be cleaned and disinfected in accordance with manufacturers' guidelines, along with regular visual inspection.



# **Unoccupied properties**

#### 8. Unoccupied properties

Is the property unoccupied for periods longer than two weeks? Unknown

Issue(s) identified/comments

#### **Risk rating**

Risk level 0 - None

Recommendation(s)

#### Unoccupied properties control measures:

If the property is unoccupied for periods of longer than 2 weeks all hot and cold water outlets systems should be flushed through at least weekly for at least two minutes. For longer periods consideration should be given to draining the system completely. The system should be flushed through before it is re-occupied by running all outlets for at least two minutes. Spray/aerosol production should be minimised during this process.



# Tenants

#### 9. Tenants

Are tenants aware of the risks of Legionnaire's Disease? Unknown Are tenants aware of their responsibilities to minimise this risk? Unknown

Issue(s) identified/comments

### **Risk rating**

Risk level 2 - Low

Recommendation(s)

#### Tenants- control measures:

Tenants should be given an advice document informing them of the risks of Legionnaire's Disease from hot and cold water systems, as well as relevant information relating to the system in place. They should be advised not to alter hot water temperatures on boilers/water heaters and/or cylinders.



# High Risk groups

#### 10. High risk groups

Is the property occupied by persons vulnerable to Legionellosis? Unknown Are there any regular visitors to the property who are vulnerable? Unknown

Issue(s) identified/comments

### **Risk rating**

Risk level 2 - Low

Recommendation(s)

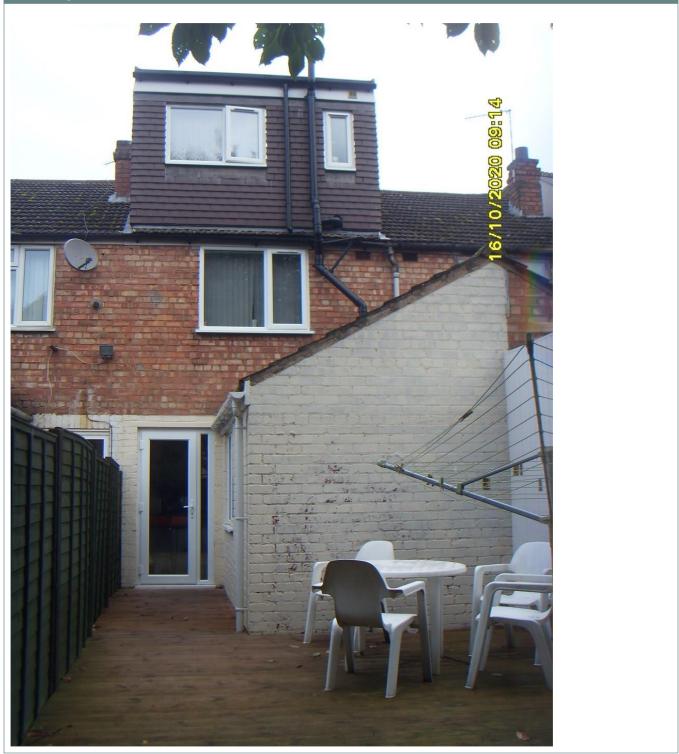
#### High risk groups- control measures:

The presence of vulnerable tenants and regular visitors to the property should be re-evaluated on change of occupancy. TMVs may need to be installed where vulnerable persons are at risk of scalding. Consideration should also be given to removing unnecessary spray outlets such as spray taps.



# **Further photos**

### Further photos



Elmhurst Energy Systems Legionella Software (2.01r0015)







# **Duties of Care for Legionella Control**

#### Landlord/ Managing Agent responsibilities include the following:

- Ensure hot and cold water systems are maintained as per the guidance contained in the Control Measures sections of this report and detailed in HSE document HSG 274 Part 2
- Ensure stored hot water is heated to 60°C or above and all hot water reaches outlets at 50°C
- Flush through hot and cold water systems prior to letting if a property has been unoccupied for 2 weeks or more (respiratory protection is advised during this process)
- Provide tenants with written information about the risks of Legionella and the correct operation of the hot and cold water system installed in the property

#### Tenant Responsibilities (if appropriate and detailed in tenancy agreement) include:

- Regular cleaning of shower heads, taps and other spray outlets every 3-6 months
- Flushing through of any little used/unused outlets every 1-2 weeks
- Reporting of any issues identified with the hot and cold water system
- Ensuring heating controls are not altered from their required settings



# **Assessment Summary**

#### Summary of Risk Assessment

The temperature at all outlets was acceptable and there is low risk at this property.

#### **Overall Risk Rating**

Risk level 1 - Minor

#### Assessment review date

Assessment review date 16/10/2020

\*This risk assessment should be reviewed on change of occupancy or changes to the water system.

### Disclaimer

This risk assessment has been carried out using information provided by the client and the property's occupants at the time of assessment. It is hereby understood and agreed that the person/s named in this risk assessment shall not be liable in respect of any claim or costs or expenses arising out of the following:

- Any neglect, error or omission occurring or committed prior to the date of this document in respect of Legionella risk assessments
- The collection of water samples for Legionella testing, the cleaning of water systems, Legionella testing and/or putting in place physical Legionella controls.

Further information on Legionella control is available in the following publications, which are available to download free from the HSE website www.hse.gov.uk

- Legionnaires' Disease: The Control of Legionella Bacteria in Water Systems- Approved Code of Practice L8 (2013) HSE
- Legionnaires' Disease: Part 2: The Control of Legionella Bacteria in Hot and Cold Water Systems HSG274 (2014) HSE





# **Certificate of Compliance**

Legionella Risk Assessment

For

# 79, Bolingbroke Road, COVENTRY, CV3 1AP

Assessor's accreditation number: EES/019540 Assessor's Name: Mr. Antony Bruce Email: antony@coventrypropertysurveys.co.uk Assessment Date: 16/10/2020

This Legionella risk assessment has been produced by a competent assessor in accordance with the requirements of Approved Code of Practice L8, HSG 274 Part 2 and other relevant HSE guidance. If you have any queries with this certificate please contact the assessor that produced it in the first instance, their details are shown above.

Elmhurst Energy Systems Limited

Elmhurst Energy Systems Limited 16 St Johns Business Park, Lutterworth, Leicestershire, LE17 4HB

T: 01455 883 250 F: 08715 289 419 E: existingdwellings-support@Elmhurst <u>W: www.elmhurstenergy.co.uk</u>



# **Schematic Drawing of Water System**

