

Legionella Control in the University of Sheffield

Background

Legionnaires' disease is a potentially fatal form of pneumonia which can affect anybody, but which principally affects those who are susceptible because of age, illness, immunosuppression, smoking etc. It is caused by the bacterium *Legionella pneumophila* and related bacteria. Legionella bacteria can also cause less serious illnesses, which are not fatal or permanently debilitating. The collective term used to cover the group of diseases caused by Legionella bacteria is Legionellosis. On average there are 200-300 reported cases in England and Wales each year and it can be fatal. Legionnaire's disease is normally contracted by the individual inhaling Legionella bacteria either in tiny droplets of water or in droplet nuclei (particles left after the water has evaporated). Incubation period is 2-10 days (usually 3-6 days).

Legionella bacteria are found in natural and man-made water systems, and thrive at temperatures between 25 - 45°C. Although easily killed by disinfectants, water systems, especially in large buildings, frequently have stagnant areas, e.g. tanks and "dead-legs", where disinfectants introduced by the water undertaker no longer have effect, so water systems where temperatures are inadequately controlled will harbour Legionella bacteria. Most outbreaks of Legionellosis are associated with showers, spray taps, air conditioning systems, misting equipment, aerosols and cooling towers, but Legionella bacteria have also been found in bench top autoclaves, water baths and other equipment. All water-related equipment can harbour Legionella unless specific measures are taken to ensure its control.

The HSE view Legionellosis as a "preventable" disease which can be prevented through the application of sound water supply management techniques. The actions needed to control Legionella, as specified in the HSE document "The Control of Legionella Bacteria in Water Systems" (ACOP L8) are: -

- a) A systematic identification, assessment and documentation of the water-related assets, and levels of risk posed by those assets, to building users and others from the water systems present.
- b) Written schemes for preventing or controlling the risks identified.
- c) Records of preventative and controlling measures for all assets inspected, disinfected etc.
- d) A formally appointed individual to be responsible for the management of Legionella in the University (the Responsible Person), with other nominated persons to assist the Responsible Person to manage and monitor the systems in the University to control Legionella.
- e) Adequate funding.

The current position with regard to the control of Legionella bacteria in the University of Sheffield

1. A Policy has been produced for the control of Legionella in the University of Sheffield, including procedures for managing water assets as necessary.
2. Mr Neil Cameron, the Director of Estates, is the nominated "Responsible Person" for Legionella and Mr Barry Whittles the "Deputy Responsible Person". The Policy identifies the organisation necessary to manage Legionella control throughout the University (including University owned and operated residences) and existing staff within the Estates Department have been allocated those roles and responsibilities. Departmental "nominated persons" have also been identified where relevant.
3. All buildings likely to pose a significant risk of Legionella have been identified and those likely to pose the greater risks have been assessed initially, although further work is required to trace pipe runs. Risks are being fully documented and preventative and control measures identified. Work is underway to identify Departmental, School or Divisional water-related assets capable of harbouring Legionella and which fall under the remit of this Policy. A treatment and sampling regime has been in place for many years and is being informed by this process.
4. All Estates Services personnel involved in the management of Legionella are appropriately trained and this training is being extended to ensure all relevant persons are fully aware of the risks posed by Legionella and of the practices necessary for its control. This will include staff representing relevant interests in departments and residences throughout the University.
5. A cross-campus group (Legionella Steering Control Group) has been established as a Sub-committee of the Health & Safety Committee, and will report to that Committee, to direct the activities necessary to manage Legionella, to monitor the effectiveness of the measures taken to control Legionella and to identify the long term investment required to eliminate and / or reduce risks. The Group is to meet quarterly until the Policy and Procedures are embedded and annually thereafter. It will take the lead role on Legionella matters, e.g. developing and monitoring the Policy and practices, providing guidance and informing relevant personnel about key issues.