



BS 8580-1:2019

Water Quality. Risk assessments for Legionella control

The British Standard on conducting Legionella risk assessments has been updated in line with changes to the HSE's Code of Practice.

BS 8580-1:2019 Water quality. Risk assessments for Legionella control. Code of practice applies to risk assessments undertaken on premises, plant and systems and where control measures may have been implemented.

This revision now aligns the standard with HSE ACoP L8 and its associated guidance documents.

Legionella risk assessment is a legal requirement, making this standard invaluable to anyone responsible for the safe management of water systems, especially within hospitals, the wider healthcare industry, leisure centres and schools.

Revised British standard on Legionella Risk Assessment

The first British Standard on assessing the risk of Legionella was published in 2010. Now a significant revision to the standard has been released.

Outbreaks of Legionnaires' disease continue to happen today. In England and Wales Government statistics reported 469 cases

in 2018. Legionellosis is a collective term for diseases caused by bacteria of the genus Legionella, an opportunist pathogen which normally inhabits warm, moist or aquatic environments. The most serious and potentially fatal is Legionnaires' disease.

Why is the incidence of Legionnaires' Disease increasing?

Throughout the world, there are increasing reports of Legionnaires' disease; the reasons for this, are a complex combination of improved medical science, demographics, technological advances and climatic change. Some argue the following factors may be relevant.

- **Improved ascertainment** – as a consequence of greater suspicion by clinicians and improved more rapid diagnostics
- **An increased proportion of the population that is susceptible** – including an increasingly ageing population, people with chronic illnesses who are surviving longer, people treated with immunosuppressants, increasing numbers of people with chronic diseases, such as diabetes
- **Increased travel** – a significant proportion of cases, particularly in northern Europe, are associated with travel, where modern hotels have complex water systems with bathroom facilities for each room, spa pools, hot tubs, irrigation systems and cooling towers
- **Increasing complexity of our artificial water systems** – exposure to them leads to a greater tendency for us to be exposed to colonised systems
- **The drive for energy and water conservation** – some argue this can lead to an increase in the likelihood of the colonization of systems with Legionella
- **Application of anti-scalding measures** – although such measures reduce the risk of scalding, some suggest they can increase the risk of systems becoming colonised with Legionella and causing the disease
- **Increased average ambient temperatures** – some believe the effects of global warming upon the likelihood of legionellae growing in natural environmental sources, although rarely directly a source of Legionnaires' disease, can lead to the more frequent contamination of our water supplies and man-made water systems. If cold water supplies are warmer, these help support the growth and survival of legionellae, the cause of Legionnaires' disease

“Legionnaires' disease is an example of a consequence of humans adapting their environment to suit themselves and, coincidentally, creating conditions conducive to the growth of other organisms that may cause disease to humans. Unfortunately, we adopt new ideas and concepts and overlook their potential effects on the microbial world and consequent increased risk to the health of humans.”

John V Lee BSc, PhD, FRSPH, FWMSc, FPWTAG, independent consultant, public health microbiologist and Chair of BSI's Legionella Risk Assessment panel

The regulations

Under the Management of Health and Safety at Work Regulations 1999, and the Control of Substances Hazardous to Health Regulations 2002, employers or those people in control of premises are responsible for understanding the associated health risks, and for carrying out Legionella risk assessments.

Nine years since the first standard on Legionella Risk Assessment was published, a significantly revised version has just been released. The new standard, BS 8580-1: 2019 Water quality, risk assessments for Legionella control — Code of practice, gives recommendations and guidance on the assessment of the risk of Legionellosis presented by artificial water systems.

Why the need for a new standard?

In 2014, the UK's Health and Safety Executive (HSE) updated its Approved Code of Practice and guidance for controlling Legionella bacteria in water systems, known as ACoP L8. It separated ACoP L8 from its technical guidance, this was further developed by industry groups into three distinct parts:

- **HSG 274 Part 1** is concerned with cooling towers
- **HSG 274 Part 2** is concerned with hot and cold water services
- **HSG 274 Part 3** is concerned with "other" systems

The revised standard has been updated to bring it in line with the revised HSE documents and

guidance. BS 8580 is referenced in, and is an important supplement to, the HSE documents. This revision of the original British Standard published in 2010, takes into account:

- the separation of the ACoP L8 and HSG documentation
- the shift from a single description of the risk assessment process and outputs, to the recommendations for the frequency of inspection in each of the individual industry groups (HSG 274 Parts 1, 2 and 3)
- new information published in 2017 as HSG 282 – control of Legionella and other infectious agents in spa pools.

What's changed in the standard?

The most significant changes relate to the competence of risk assessors (Section 5.1) and the preparation of the risk assessment report (Section 9).

Sections 8 'Evaluation of the Risk' and section 10 'Risk Review and Reassessment' have also had some reorganisation and modification to improve clarity.

The annexes have been updated in particular:

- annex B on hot and cold water systems has been extensively revised
- annex D, Spa Pools, has been updated to encompass the nomenclatural and other changes within HSG 282
- annex E, Other Systems, includes more information on humidifiers, vehicle wash systems, and thermal processing of food

Benefits of using the new BS 8580-1

This guidance should lead to the production by competent individuals of brief, clear, user-friendly reports lacking superfluous information.

“BS 8580-1:2019 is a significant revision of the existing British standard BS 8580 published in 2010. BS 8580:2010, on the assessment of the risk of legionellosis presented by artificial water systems, was a widely applied and recognised standard throughout the industry. The revision, BS 8580-1:2019, now reflects current practice and should enhance standards even further.” **Water Management Society**

Parts 1 and 2?

The standard's name has changed from “BS 8580” to “BS 8580-1” because the drafting panel believed it necessary to develop a similar risk assessment standard for *Pseudomonas* – another pathogen, widely found in soil, water and plants, which can cause infections in humans. This will be published as “BS 8580-2”.

New for 2019: Tracked-changes versions of Revised Standards

This year, BSI is offering tracked-changes versions of key standards that have been revised, to help users see clearly what's changed and what's stayed the same. BSI is pleased to say that BS 8580-1 can be bought as a simple standard or as a 'Tracked-changes package' where customers receive both the new standard and a tracked-changes version. Both versions can be purchased in hard copy or PDF.

Make sure you are working with the latest standard in this compliance and safety-critical area, get yours today.

BS 8580-1:2019

The standard gives recommendations and guidance on the assessment of the risk of Legionnaires' disease, which is a legal requirement, presented by artificial water systems.

Available in PDF or Hard Copy.

Price: £246 (BSI Members get 50% off)

BS 8580-1:2019 + Tracked Changes

This package includes a copy of the new standard, along with a track-changed version which shows clearly what has changed from the 2010 standard, and what has remained the same.

Available in PDF or Hard Copy.

Price: £320 (BSI Members get 50% off)

