



Vericon Systems: Legionella Risk Management & Compliance System

A Single, Unified Asset Intelligence Platform Delivering Value Across Housing, Assets, and Residents

01242 582 555

www.vericonsystems.com

hello@vericonsystems.com

@vericonsystems

Unit 5, Churchill Industrial Estate,
Churchill Rd, Cheltenham GL53 7EG

Introduction & The Problem

Executive Summary

Legionella risk is one of the highest personal liability compliance responsibilities faced by dutyholders in housing, healthcare, education, defence, and large commercial estates. Vericon provides a purpose built Legionella risk management system that goes beyond monitoring to actively prevent non compliance. Vericon detects, evidences, and actively corrects risk at outlet level — automatically, continuously, and with defensible records.

At the heart of the system is a dual sensor (hot and cold) architecture combined with intelligent tap control, enabling Vericon to:

- Continuously monitor both hot and cold water behaviour
- Identify stagnation and temperature non compliance
- Autonomously flush through the correct tap (including IR taps)
- Maintain compliance in voids, under used outlets, and restricted access areas
- Produce tamper proof, audit ready records

This makes Vericon the most complete standalone Legionella control system currently available for dutyholders managing real-world risk — while also forming the foundation of a future multi compliance platform.

Understanding Legionella Requirements

Legionella risk management in the UK is governed by:

**Health and
Safety at Work
etc. Act 1974**

**COSHH
Regulations
2002**

**HSE ACOP L8 &
HSG274 Part 2**

Under these standards, dutyholders are legally required to maintain water systems so they do not pose a risk of Legionella proliferation.

Failure to do so can result in improvement notices, significant civil liabilities, and, in serious cases, criminal prosecution for breaches of duty.



Temperature Control

- Hot water stored at **$\geq 60^{\circ}\text{C}$**
- Hot outlets must reach **$\geq 50^{\circ}\text{C}$ within 1 minute**
- Cold outlets must reach **$< 20^{\circ}\text{C}$ within 2 minutes**

Regular Outlet Usage / Flushing

- Weekly flushing of under used outlets
- Reducing stagnation, which is one of the strongest predictors of bacterial growth

Identification of System Risks

- Aerosol producing outlets
- Dead legs / little used pipework
- Risks to **vulnerable persons** (elderly, immune deficient individuals)

Accurate Record Keeping

- Duty holders must keep **verifiable, tamper proof records** demonstrating compliance activity

The Solution & Technology

The Vericon Platform

Vericon is a single unified intelligence platform that understands, integrates with, and communicates directly with buildings, their assets, and residents. Through real-time monitoring, analytics, and engagement, the platform enables proactive management rather than reactive response, improving outcomes for residents and asset owners alike.

LegionellaGuard - intelligent Legionella risk control

LegionellaGuard is a battery powered, intelligent Legionella risk control device that detects, evidences, and automatically corrects stagnation and temperature risk at the outlet. It has been designed to eliminate stagnation risk, reduce manual compliance activity, and provide **defensible audit evidence**—even in **hard to reach, remote, or restricted access areas**.

It operates alongside Vericon's **EmeRed emergency lighting testing platform**, allowing dutyholders to reuse infrastructure and reduce total compliance cost. It uses the same proven network and compliance infrastructure, enabling estates to consolidate safety systems and reduce long term costs.

Dual Sensor Outlet Intelligence (Hot + Cold)

LegionellaGuard uses **two independent, clip on sensors** at each outlet—one on the hot feed and one on the cold feed. This enables accurate verification of hot and cold temperature performance at the actual point of use, identification of stagnation risk, detection of partial flow or blending, and early identification of failing heaters or calorifiers **before non compliance occurs, complaints, enforcement action occurs.**

No pipe cutting. No disruption. No intrusive works.

Dormant by Design – Measures Only When It Matters

The system remains dormant until water is used. During tap operation, LegionellaGuard records temperatures **every 10 seconds for up to two minutes**, capturing starting temperature, final temperature, and **rate of temperature rise.**

This delivers regulator grade insight that spot checks cannot provide—highlighting degrading heating performance and issues that only appear during real use. All data is written automatically into the audit trail, creating **evidence regulators, auditors, and insurers trust, not assumptions.**

Autonomous Auto Flushing Through the Correct Tap

When a tap has not been used for 7 days and a compatible automatic tap is fitted, LegionellaGuard autonomously identifies the under used outlet, performs a controlled flush through that tap, verifies temperature and duration, and logs the entire event automatically.

This is **true autonomous control**—not PIR guesswork, unverified timed flushing, or blanket routines that generate no defensible evidence.

PIR & Automatic Tap Connectivity (No Lock In)

LegionellaGuard connects directly to PIR / infrared taps to enable validated auto flushing. Where automatic taps are not already installed, **Vericon supplies a compatible range**, including domestic, healthcare, DDA compliant, and vandal resistant options.

This removes procurement risk and allows direct replacement of **non compliant PIR flushing solutions that generate no defensible evidence.**

Built for Remote, Secure & Hard to Reach Areas

LegionellaGuard is ideal where access is restricted or weekly flushing is impractical, including void properties, secure accommodation, riser cupboards, plant rooms, NHS, defence, and sheltered housing estates.

Compliance is maintained **without engineer visits** unlocking some of the highest cost savings in Legionella management, delivering significant cost reduction while reducing risk.

Commercial Impact: Immediate & Measurable

Major Measurable Reduction in Engineer Visits

- Weekly flushing visits removed where LegionellaGuard is deployed
- Particularly high savings in void and low use properties

Lower Risk, Lower Cost, Lower Legal Exposure

- Problems identified earlier (before failure or enforcement)
- Fewer emergency call outs
- Reduced reliance on manual logbooks

Platform Efficiency

- Shares infrastructure with **EmeRed emergency lighting compliance**
- One system, one audit trail, one supplier

In Summary: Why Buy LegionellaGuard

- ✓ Dual hot & cold clip on sensors at the outlet
- ✓ Autonomous, validated flushing through the correct tap
- ✓ Works in voids and restricted access areas
- ✓ Non intrusive installation
- ✓ Early warning of heater / calorifier issues
- ✓ Tamper proof audit evidence
- ✓ Significant reduction in compliance costs
- ✓ Integrates with wider Vericon compliance systems

LegionellaGuard doesn't just monitor risk. It removes it—automatically, defensibly, and at significantly lower operational cost.

Compliance, Risk Reduction & Tangible Outcomes

The Vericon solution is designed not just to meet regulations—but to reduce operational risk, legal exposure, and costs.

66%**Reduction in
Standard Visits**

Routine compliance visits reduced from 12 per year to exactly 4 per year for standard properties

93%**Reduction for Void
Properties**

Site attendances reduced from 56 per year to just 4 quarterly visual inspections

(HSG274 part2 – 52 weekly flushing visits & 4 quarterly inspections)

52**Manual Visits
Replaced**

Weekly flushing visits replaced by automated interventions for void/high-risk properties

Cost Impact: Depending on property status, the Vericon system eliminates between 8 and 60 engineer visits annually:

- 8 visits removed for standard occupied dwellings (12 routine visits reduced to 4).
- Up to 60 visits removed in void dwellings where weekly flushing and monitoring are normally required.

✓ Improved Legal Protection for Dutyholders

- Digital, tamper-proof records strengthen audit defence
- Reduces exposure to enforcement action under HSE ACOP L8
- Supports insurers with credible, independent data

✓ Significant Reduction in Stagnation & Non-Compliance Events

- Automated interventions prevent stagnation before risks develop
- Exception reporting flags properties that need intervention
- Ideal for voids, sheltered accommodation, and high-risk sites

✓ Protection of Vulnerable Residents

Vericon directly reduces exposure risk for individuals most susceptible to Legionnaires' disease, including:

- Elderly residents
- Those with chronic respiratory conditions
- Immunocompromised people

Automating proper water hygiene in these environments significantly reduces the chance of exposure.

✓ Real-Time Evidence Dashboard

Provides dutyholders with:

- Live temperature compliance
- Real-time flushing evidence
- Portfolio-wide risk rankings
- Automated audit reports
- Clear exception-based workflows

✓ Independent Validation

Vericon is currently engaging with LCA registered specialist consultants to provide independent validation of the system's methodology and compliance performance.

Future-Proof Scalability: An Optional Multi-Compliance Ecosystem

The Vericon Legionella solution is designed to operate flawlessly as a powerful, standalone water hygiene system. However, for dutyholders looking to consolidate their building safety technologies over time, the system is built on a highly secure ZigBee-based mesh network.

This means your initial investment in Legionella compliance establishes a "future-proof" backbone. If and when required, dutyholders have the option to seamlessly activate additional compliance functions through the exact same platform, without installing new network infrastructure:



Emergency Lighting Testing

- Automated monthly function tests
- Automated annual 3 hour drain tests
- Digital pass/fail logs reduce inspection burden

Fire Door Safety Monitoring

- Sensors detect wedge misuse, forced doors, and failed self-closers
- Improves fire safety compliance and reduces manual inspections

Integrated Building Safety Compliance

By combining water safety, fire safety, and building safety into one connected platform, dutyholders achieve:

- Lower total compliance costs
- Exceptional audit readiness
- A single source of truth across large asset portfolios
- Higher safety assurance for residents and service users

The Standalone Advantage with Ecosystem Potential: Whether deployed purely for best-in-class Legionella management or expanded into an integrated building safety platform, Vericon guarantees exceptional audit readiness, lower total compliance costs, and a single source of truth for your asset portfolio.

Legionella Compliance Matrix

HSE Requirement	Industry Method	Vericon Monitored	Captured at Install	Quarterly Requirement
Hot water stored $\geq 60^{\circ}\text{C}$	Measure at calorifier outlet	Yes	N/A	Optional
Hot outlet $\geq 50^{\circ}\text{C}$ in 1 min	Measured at sentinel taps	Yes	N/A	Optional
Cold outlet $< 20^{\circ}\text{C}$ in 2 min	Measured at sentinel taps	Yes	N/A	Optional
Identify under-used outlets	Engineer logs usage manually	Yes	N/A	Engineer verifies
Confirm flushing occurred	Engineer records flushing	Yes	N/A	Yes
Aerosol outlets identification	Engineer identifies shower/spray taps	Yes	Yes	Quarterly descaling
Quarterly shower descaling	Engineer removes/descal heads	No	N/A	Yes
TMV inspection	Engineer inspects TMVs	No	Yes	Yes
System design risk identification	Engineer surveys site	Yes	Yes	As needed
Schematic updates after plumbing changes	Engineer updates drawings	No	Yes	As needed
Cold water tank hygiene	Engineer inspects tank	No	N/A	Yes
Detect scale/sediment/biofilm	Visual inspection	No	N/A	Yes
Identify vulnerable persons	Engineer assesses population risk	Yes	Yes	As needed
Aerosol outlet usage monitoring	Engineer estimates	Yes	Yes	Quarterly check
Record keeping compliance	Engineer keeps logbooks	Yes	Yes	Yes