

The 30-day Blind Spot: Is it Time to Rethink Water Compliance Monitoring?

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For decades, water temperature monitoring has relied on a familiar model. An engineer visits a building, takes a temperature reading, records the result and moves on. That reading is valuable. It helps demonstrate compliance and provides facilities teams with an important record of system performance.

But it also raises a simple question.

What happens when the engineer isn't there?

A temperature taken at 10am on a Tuesday tells you what was happening at 10am on Tuesday. It doesn't necessarily tell you what happened on Monday, what will happen on Wednesday or whether something changes significantly during the weeks before the next visit.

I've worked in water treatment for more than nine years. I'm a chemical engineer by trade and have worked across cooling towers, steam boilers, closed systems and water hygiene in environments ranging from hospitals and universities to manufacturing and pharmaceutical sites.

The industry has changed considerably during that time.

And I believe the way we use data needs to change with it.

From snapshots to trends

There has been a significant increase in interest in remote temperature monitoring over the last few years.

The reason is relatively straightforward: rather than relying solely on individual readings, IoT sensors can provide facilities and water treatment teams with a much richer picture of how a system is performing over time.

That distinction matters.

If temperatures begin moving outside expected parameters, continuous data can help us identify a trend earlier. Instead of discovering an issue during the next scheduled visit, teams have an opportunity to investigate what is happening and determine whether intervention is required.

It moves the conversation from “What was the temperature when we visited?” towards “What is actually happening within this system?”

For me, that’s where the real value of the technology lies.

More data doesn’t have to mean more work

One of the misconceptions around connected buildings is that more data simply creates more information for facilities teams to manage.

Used properly, the opposite should be true.

At PTSG, our work with remote monitoring has shown how data can help us understand not just temperatures, but how buildings and individual outlets are actually being used.

At one location, for example, data showed a recurring pattern of outlet use. When we investigated, it coincided with a regular meeting taking place within the building.

That might sound like a small detail.

But previously, a water hygiene provider wouldn’t necessarily have had that visibility. With it, we can start making more informed decisions about flushing regimes and where engineering resource is genuinely required.

Multiply that thinking across a large national estate and the potential becomes significant.

Putting engineers where they’re needed

This is particularly relevant for FM teams managing geographically dispersed estates.

If an engineer has to travel several hours simply to carry out a routine check or flush an outlet, there is a cost attached to that journey in time, money and carbon.

There is also a health and safety consideration that shouldn’t be overlooked.

Every journey we can safely remove is one less period of road-risk exposure for an engineer.

Remote monitoring doesn’t mean engineers disappear from the process. Far from it.

Water treatment remains a specialist discipline requiring competent people, sound risk assessment and

expert interpretation.

Technology simply gives those specialists better information.

If data tells us everything is operating as expected, we can avoid unnecessary activity. If it indicates that something isn't right, we can focus our people and expertise on investigating the issue.

The objective isn't fewer engineers. It's smarter engineering.

A better audit trail

There is another benefit facilities professionals will recognise immediately: records.

Compliance has traditionally generated enormous quantities of paperwork. Logbooks need to be completed, retained and made available when required.

Digital monitoring provides an opportunity to create a much clearer history of what has happened within a system.

Rather than searching through cupboards of historic logbooks, authorised users can access data, look at trends and understand how a system has performed over time.

That ability to look backwards is important.

But increasingly, the real opportunity is using the same information to look forwards.

Where does it go next?

Temperature monitoring is only one application.

Across water treatment we're already looking at opportunities around tank levels, flow monitoring, cooling towers, boilers and other areas of condition monitoring.

The technology itself will continue to develop.

For facilities professionals, however, I think the more interesting question is what we choose to do with the information it gives us.

PTSG delivers more than 170 specialist services, the majority driven by safety and compliance requirements. Across the wider built environment, there is enormous potential for connected technology to help specialists understand assets, identify changing conditions and intervene more intelligently.

That doesn't mean putting a sensor on everything simply because we can.

Technology has to solve a problem.

It has to improve safety, strengthen compliance, increase efficiency or give customers information that helps them make better decisions.

Expertise, enhanced

I don't believe the future of compliance is people versus technology.

It's people with technology.

The knowledge and judgement of experienced engineers remain fundamental. But if we can give those people access to better information, identify potential issues earlier and remove unnecessary activity from their working day, we should.

Ultimately, the goal isn't to collect more data.

It's to turn that data into something useful.

Better visibility. Earlier intervention. Smarter decisions.

And, ultimately, safer buildings and safer people.

Hear more from Damon

Damon Bhakta recently joined Ben Ings of Invisible Systems for a podcast exploring remote temperature monitoring, IoT, Legionella risk and the future of technology-enabled water compliance.

Listen to the full conversation to hear Damon and Ben explore the technology, its real-world applications and where connected compliance could go next.