

Case studies — Meat processing plant

Problem

Periodic testing of various surfaces revealed elevated levels of microorganisms, which meant a potential threat to the spread of foodborne illness. With subsequent increases in the number of recalls, they put in place additional sanitation measures requiring longer and more frequent shutdowns. The addition of third-party sanitation services was costly and provided inconsistent results that left the company with higher cleaning costs and minimal reduction to the problem.

The company was looking for a cost-effective way of reducing microbial levels in air and surfaces to ensure food safety and reduce business risk and shutdown time. It had considered fogging with peracetic acid and treating with chlorine dioxide gas but felt both approaches had significant drawbacks: (i) they could not be deployed in occupied spaces, so they were not 24/7 solutions and required production shutdowns; and (ii) they degraded materials (plastics, rubbers, metal, electronic components) used in the facility.

Pyure impact

A Pyure controlled solution was installed into the ductwork of the air handling system to treat the entire building (~30,000 sq ft). Wall mounted units were installed in spaces that did not have ducted air supply. The system provided 24/7 treatment of air and surfaces.

A reduction of over 90% in the levels of microorganisms detected on various surfaces (swabs and Petri dishes), including inside the ductwork. Employees reported that the facility smelled fresher and that there was a significant reduction in bothersome odors.

The consistency and effectiveness of in-house sanitation efforts vastly were improved, resulting in consistently low levels of microorganisms detected, even in hot spots.

Customer benefits

The addition of the Pyure solution allowed the company to stop using supplemental, third-party sanitation services and decrease the amount of time and labour dedicated to the cleaning process.

No recalls were experienced after implementation, and fewer are anticipated due to the lowered levels of microorganisms — saving direct and reputational costs.

Ten yearly production days were added by eliminating unscheduled sanitation shutdowns from elevated microbial counts and lower frequency cleaning of air ducts.

The payback was estimated to be less than 6 months, based solely on cost reductions and increased production time, without factoring in the value and benefits of reduced business and reputational risk.

