

COLIFORM CONTROL FOR DRAINS + FLOOR TOOLS CASE STUDY

AREA OF CONCERN

Sterilex was contacted by a global manufacturer of bread and baked goods with concerns about their environmental surfaces—particularly drains and floors. The plant was having high coliform and *Listeria* results in some of these areas.

ISSUE

High total coliform and intermittent *Listeria* positives on floors and in drains, potentially risking cross-contamination to food contact surfaces or product

RECOMMENDATIONS

Sterilex recommended the addition of their comprehensive Drain Program, which is powered by Sterilex's patented EPA-registered PerQuat® technology to help kill hard-to-reach organisms and remove biofilm. Sterilex representatives recommended the following procedure for ongoing treatment and the duration of the study:

P.P.E. (Personal Protective Equipment)

All sanitation technicians performing this sanitation procedure must wear PPE: goggles and/or face shield, gloves, apron, rubber boots, rain suits, hard hat, ear plugs, hairnet.

Note: *The area is to be properly ventilated with an emergency eye-wash station available. Always follow corporate safety and labeled procedures.*

Pre-Cleaning

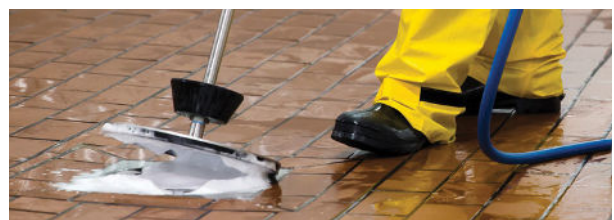
Remove drain cover, basket, and any other items associated with drains, including screws. Empty basket of any large soils.

BACKGROUND

The source of the problem was suspected to be a lack of biofilm control on environmental surfaces in the facility. Sterilex was brought in to recommend an SSOP for biofilm control and resistant organism control.

Disinfection + Biofilm Removal

1. Add 12.8 fl oz of **Sterilex Ultra Disinfectant Cleaner Solution 1 (Solution 1)** and 12.8 fl oz of **Sterilex Ultra Activator Solution (Solution 2)** per gallon of water to a foamer.
2. Repeat the mixture to service the total amount of drains for your facility.
3. Attach the proper drain foam attachment to a dedicated foamer.
4. Place the drain attachment disk/plunger over the top of the drain and apply the foam to the drain until the entire drain cavity and area surrounding the drain is covered by a thick, shaving-cream like foam as shown in the picture below.
5. Replace the drain cover/plate (if present, basket) and then foam Sterilex solution until the drain cover/plate is completely covered with foam.

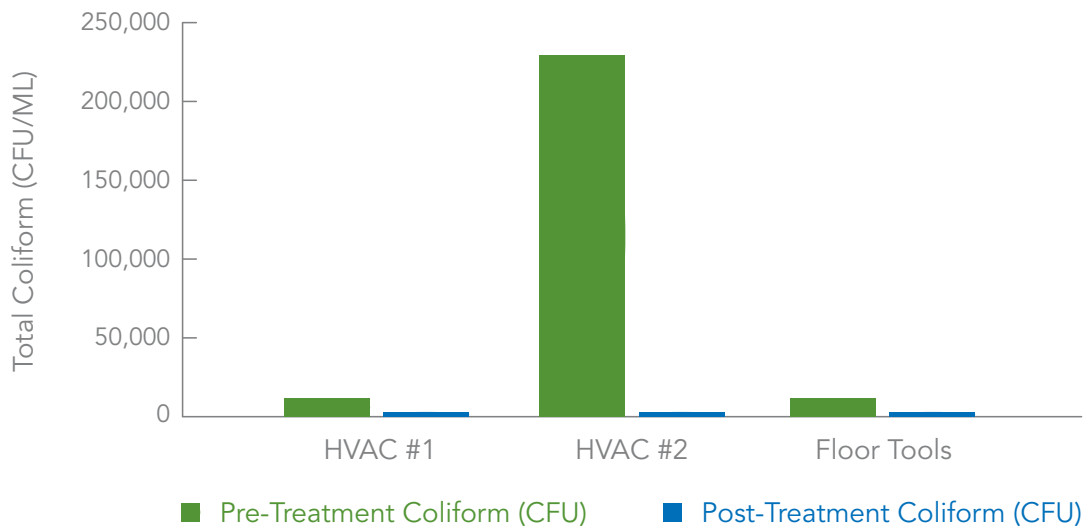


RESULTS

Microbial Testing

A large drop was observed in the coliform results on the three areas tested.

Location Name	Pre-Treatment Coliform (CFU)	Post-Treatment Coliform (CFU)
HVAC Drain #1	5000	<10
HVAC Drain #2	235,000	200
Floor Tools	6000 (17 <i>E. coli</i>)	<10



CONCLUSIONS

As observed in this trial, treatment of drains and floor tools with with Sterilex PerQuat technology resulted in a large reduction in coliforms found. Coliforms like *E. coli* are protected and housed in biofilm colonies, and Sterilex's PerQuat solutions were developed to target this biofilm reservoir of bacteria. This case study suggests that Sterilex PerQuat technology is effective at penetrating and removing biofilm in hard to reach areas, which enables kill of biofilm pathogens as well.

Similar results may be observed in any plant with drains by following a similar protocol.