

# CASE STUDY

## Solid Chemistry Program Reduces Biofilm Blockage and Eliminates Odor

### BACKGROUND

A large industrial manufacturer in the USA was faced with major biofilm issues which caused several issues in their processes. Not only was odor an issue, but biomass was causing blockages in the water cooling process. This caused unplanned shutdowns and lost revenue. Traditional liquid biocides were difficult to implement as space was limited and access to the location was difficult even with 5 gallon pails.

The previous water treatment company recommended biocide floats which lacked in working for an extended period of time. Refilling the floats was cumbersome and often forgotten, and so the problem was consistent and worsening.

### SOLUTION

AP Tech, the manufacturer of highly active biocides in compact sizes, was contacted for a solution. When studying the problem, it was decided that a continuous oxidizing biocide feed with ORP control would be able to provide a safe and effective program. The piece of equipment best suited for this application was the Ultra-T due to its size, ease of use and cost. The dissolver was coupled with a small ORP controller that was plumbed inline of process water. The system was mounted onto a panel and hung on a railing for easy access.

For the oxidizing biocide, DuroKleen 101 was recommended. This is a calcium hypochlorite product that is 65% active as free chlorine and comes in 8 pound bottles for extended run times. Using biocides in recyclable bottles also allowed for easy management of inventory and refills, and helps reduce waste to landfills.



Before Solid Treatment



After Solid Treatment

### RESULTS

Within the first week, water troughs and holding tanks saw a major reduction in biomass. Upon startups after water had been sitting, the sulfur odor previously observed was eliminated. The customer has been extremely happy with the results and asked for the implementation of the system on the rest of their lines in the facility.

 **100%**  
CUSTOMER  
SATISFACTION

 **MAJOR  
REDUCTION**  
IN BIOMASS & ODOR

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APTECHSOLIDS.COM

### PRODUCTS USED

*Chemistry*  
**DUROKLEEN 101**  
EPA Registered  
Oxidizing Biocide

*Dissolving Equipment*  
**enduroTEQ ULTRA-T**  
Gravity Feeder

 **AP TECH**