



● COMMERCIAL HEATING/COOLING

Office Complex Cooling-Tower Water Treatment US Southeast

Cooling-tower bio-counts fell from 100,000 to below 1,000 CFU within days, alongside reduced scale and biofilm and an estimated six-month ROI.

>99%

Bio-Count Reduction

<1,000

CFU Within Days

~6 month

Estimated ROI



Scale & Biofilm Accumulation



BEFORE & AFTER

● BEFORE

- Bio-counts reached 100,000 CFU
- High cycles caused severe scale
- Severe biological fouling developed

● AFTER

- ✓ Bio-count fell below 1,000 CFU
- ✓ Scale accumulation was reduced
- ✓ Biofilm accumulation was reduced



BEFORE

Heavy scale and biofilm on cooling-tower



AFTER

Cleaner chiller tubes after treatment



OVERVIEW

A large US Southeast commercial complex includes 2.3 million square feet of offices across six buildings, more than 50 restaurants and shops, and three hotels with over 4,000 rooms. To manage high water costs, the north and south tower cooling systems operated at high cycles of concentration, reducing water use but creating significant scale and biological fouling.



CHALLENGE

The cooling towers needed better biological control without compromising the site's water-saving strategy.

- Bio-counts reached approximately 100,000 CFU
- Required target was below 10,000 CFU
- Scale and biofilm affected cooling and chiller surfaces



SOLUTION

One *HydroFLOW*® Custom 14" unit was installed on the south-tower cooling and chiller water system. A planned 90-day trial led to the unit being purchased outright.

UNIT INSTALLED

1x *HydroFLOW*® Custom 14"

INITIAL APPLICATION

South-tower cooling and chiller system

PLANNED TRIAL

90 days



INSTALLATION

HydroFLOW® Custom 14" on pipework



SITE

South-tower cooling tower



RESULTS

📈 >99% Bio-Count Reduction

Bio-counts fell from 100,000 to below 1,000 CFU.

🕒 Target Exceeded Within Days

Bio-counts fell below 1,000 CFU, far exceeding the <10,000 CFU target.

🛡️ Scale Accumulation Reduced

Reduced scale was reported in the cooling tower and chiller tubes.

💧 Biofilm Accumulation Reduced

Reduced biofilm was reported across cooling-tower and chiller surfaces.

💰 Roughly Six-Month ROI

The initial *HydroFLOW*® installation achieved an estimated six-month ROI.

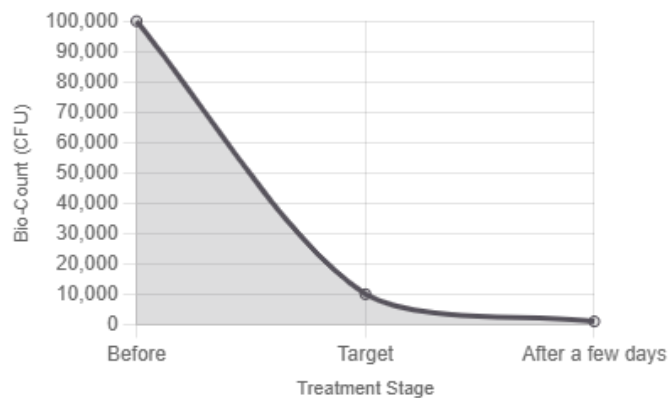
↗️ Success Expanded Site-Wide

Results led to additional *HydroFLOW*® units across the complex.



GRAPHS

Bio-Count: Target vs Result



Bio-count fell from 100,000 to below 1,000 CFU within days, well below the <10,000 CFU target

KEY TAKEAWAY

Summary

One *HydroFLOW*® Custom 14" unit was installed on the south-tower cooling system. Within days, bio-counts fell from 100,000 to below 1,000 CFU, well below the <10,000 CFU target. Scale and biofilm were reduced, with an estimated six-month ROI and further units installed across the complex.

>99%

LOWER BIO-COUNT

<1,000

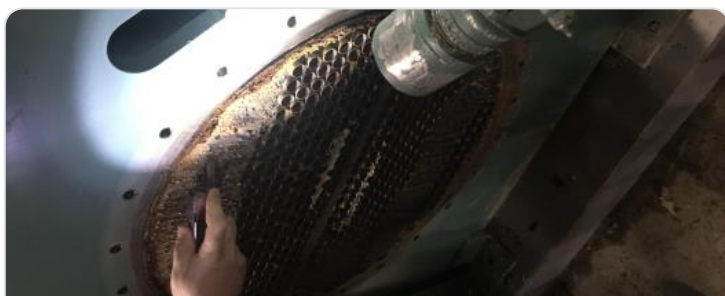
CFU AFTER TREATMENT

~6 months

ESTIMATED ROI



ADDITIONAL PHOTO EVIDENCE



INSPECTION

Chiller opened to inspect tube condition



BEFORE

Biological fouling on cooling-tower fill



INSTALLATION

Additional HydroFLOW® unit installed on site



INSTALLATION

Additional HydroFLOW® unit installed on site

HYDROPATH

The Forefront of Sustainable Water Treatment

HydroPath Technology is a world leader in sustainable water treatment solutions, providing chemical-free alternatives for industrial and commercial applications across more than 50 countries.

50+

COUNTRIES

30+

YEARS EXPERIENCE

1M+

UNITS INSTALLED

RELATED CASE STUDY

Domestic Hot Water Scale Control Case Study

London, Ontario, Canada

Two HydroFLOW® i60 units were installed at Northview REIT to treat scale in a domestic hot water boiler system. The pilot eliminated existing scale and stopped new buildup, removed the need for Parafoam chemical feed and delivered calculated annual savings of \$11,639.16.

\$11,639 Annual Savings

Minimum calculated annual savings from energy, chemicals and longer boiler life.

2.01 Year Payback

Installed unit costs of \$23,441.85 delivered a calculated minimum ROI of 2.01 years.

\$139,670 Lifespan Savings

Calculated savings reached \$139,669.92 across the projected 12 year lifespan.



Ready to optimise cooling-system water treatment?

Speak to HydroPath about controlling scale and biological fouling in cooling systems.

✉ sales@hydropath.com ☎ +44 (0)115 986 9966 🌐 hydropath.com

✓ ISO 14001:2015

✓ ISO 9001:2015

✓ GREENPRO

✓ SOLAR IMPULSE