

# Automated Chemical Treatment

# CASE STUDY:

## CLIENT PROFILES

A dye house for 25 years that shifted manufacturing processes to another facility. Now at the facility, the only cloth dyeing occurs in small-volume piece dyeing. Because of the reduction of dye processing, space was created for a bleaching operation.

## OPERATIONAL CHALLENGE

The waste stream characteristics drastically changed after the new processes were implemented and created several challenges. Color removal, which is of paramount importance to the local publicly owned treatment works (POTW), remained an issue, and the added concern of how the bleaching operation would affect the internal waste water plant's clarifier became a focus.

The increased use of hydrogen peroxide and bleach was concentrated in dumps, at which points the sludge bed would rise at an alarming rate and sludge would begin to overflow the clarifier and be discharged to the POTW.

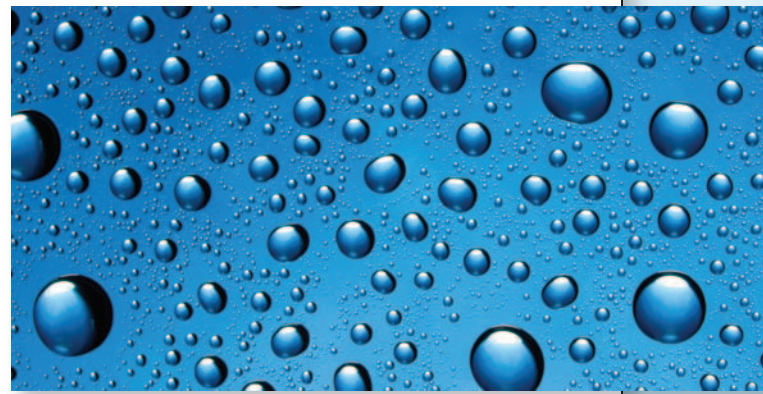
## CHEMICAL SOLUTION

Kroff Chemical Company, Inc. engineered an automated chemical treatment program that settles the solids in the clarifier and eliminates any chance for operator error. Several monitoring procedures now provide early warning signs if sludge rises in the composite tank.

KCC also implemented a protocol for when sludge levels hit 4 feet from the top of the clarifier whereby emergency procedures increase the lime feed, the polymer feed, and utilize a submersible pump to pull solids back into the center well.

## BOTTOM-LINE RESULTS

As a direct result of Kroff's chemical treatment program, the plant can now operate continually to meet customer demands without interruption while meeting all of the POTW discharge parameters.



*Kroff Chemical Company, Inc. provides custom-blended chemicals and specialty services that improve clients' critical water and process system performance, which helps maximize efficiency of operations and lower costs of operation.*

*Kroff Chemical's services focus on energy efficiency, regulatory compliance, waste minimization and water reuse, fully automated and integrated chemical applications, and a safety-conscious approach.*

*With the support of Kroff Chemical Company, Inc., facilities operate with less staff, but they operate safely, efficiently and profitably. Clients focus more on their core competencies and look to Kroff Chemical Company, Inc. to treat, operate and maintain their critical water and process systems.*