

aluminum can manufacturer reduces wastewater treatment costs by 44% by using KlarAid* tannin technology

challenge

The wastewater flow scheme for this aluminum can manufacturer involved three streams:

1. Washer rinse water
2. Demineralizer regenerant
3. Lube oils and cleanup water.

The mixture, containing oil and grease, is fed into a steam-heated, "oil split tank," where it is treated with acid. The outlet stream from that tank, after suitable chemical treatments, is fed into a Dissolved Air Flotation (DAF) unit. Properly set up, the DAF process was intended to capture most of the solids, preventing carryover into a discharge to the sewer.

Replacing a former supplier of water and wastewater treatment services, SUEZ worked with the manufacturer to identify problems in operation of the waste water treatment process:

1. There was excessive DAF solids carryover, causing compliance problems and pipe fouling.
2. Sludge volumes were unnecessarily high.
3. There was a lot of drum handling required with the existing chemical supplier.
4. Costs for wastewater treatment were running at 15 cents per 1000 cans.

solution

SUEZ helped to develop a solution whereby the DAF feed was given consecutive treatments in a fast mix tank and a slow mix tank (see schematic diagram). With pH adjustment at two points as shown, a KlarAid

tannin product was introduced into the fast mix tank. Then a SUEZ Anionic Emulsion polymer was introduced into the slow mix tank.

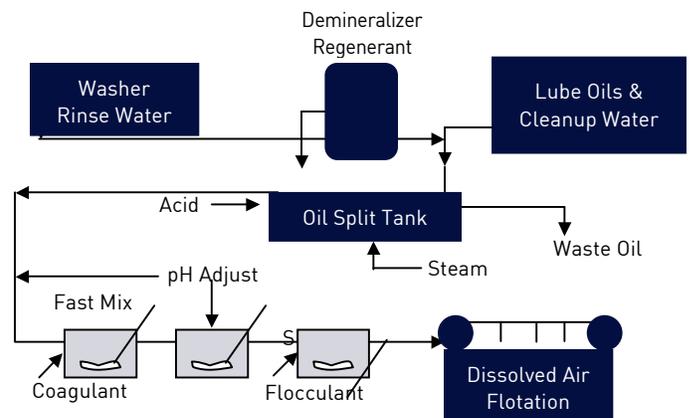
Finally, operation of the DAF process itself was improved by better control of air pressure in the saturation tank. Also, operation of the skimmer was adjusted.

results

To maintain results, a SUEZ service program was established and bulk delivery and storage of chemicals was arranged instead of delivery in drums.

Previous Cost	Current Cost	Savings
15 Cents/100 Cans or \$180 /day	8 Cents/1000 Cans or \$96/day	7 Cents/1000 Cans or \$74/day
Based on production of 1.2 million cans per year		

Wastewater Flow Scheme



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