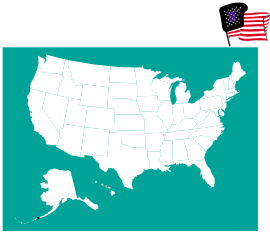


AccuSine[®] reduces harmonic current distortion at a Waste Water Treatment Plant

USA



Wastewater treatment

Accusine Power Correction System

Schneider Electric continues to deliver comprehensive power quality solutions to customers. AccuSine[®] provides active harmonic control by monitoring a distorted electrical signal, and then canceling harmonics with the dynamic injection of opposing current.

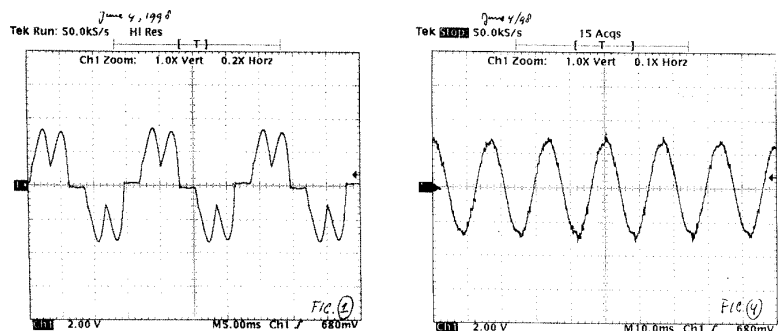
Potential downtime risked dumping partially treated sewage

A wastewater treatment plant installed variable frequency drives (VFDs) to improve control of raw sewage pumps and to decrease operating costs through variable speed operation. A variety of unexpected problems occurred, including interference with the computer management system. Depending upon the speed of the VFD raw sewage pump system, the circuit breaker protecting the management control system would trip, shutting the plant down. The downtime risk included the potential for partially treated sewage to be dumped into a nearby river.

Consultants were hired to analyze the situation. It was determined that harmonic control would be necessary to insure system integrity. First, an input line reactor was installed and it was partially successful. However, the problem persisted when the system operated at near full load and speed conditions. Installation of an AccuSine[®] Power Correction System eliminated the problem completely.

AccuSine[®] eliminates downtime

This installation required an AccuSine[®] rated at 50 amperes and 480 volts performing active harmonic control, cancelling the harmonic current demanded by a VFD rated at 125 horsepower. AccuSine[®] successfully reduced the total harmonic current distortion (as defined by ANSI/IEEE std 519-1992) from 39.0% to 4.1% insuring trouble free operation of the plant. See the chart recordings below.



For more information, contact the Schneider Electric Power Quality Correction Group at (905) 459-8805 or pqc@squared.com or visit www.reactivar.com

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- Merlin Gerin
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