Case Study
Wastewater Treatment: Grit Lines

CiDRA's SONARtrac® VF-50 system provided accurate flow measurement profiles to help control pump speeds and optimize grit separation.

Customer:
Wastewater Treatment Plant

Application:
Grit Separation

Challenge:
A Wastewater Treatment Plant uses vortex units in their grit separation process. In order to separate grit properly, the vortex units require a specific flow profile. Changes in the pipe system at the treatment plant caused the pumps to increase their speed, which resulted in premature failures due to clogs, overflows, and poor flow profiles. Ultimately, these issues led to both poor grit quality (very wet or high organic content) and low separation efficiency as the plant needed to recycle and retreat the grit.

Solution:
The customer utilized a SONARtrac VF-50 flow monitoring system on their ductile iron pipe to the vortex units. The SONARtrac system, which installed safely and easily on the outside of the pipe, provided accurate and repeatable volumetric flow measurements. Plant operators were able to use these measurements to control pump speeds, eliminate grit separation issues, and improve grit quality.

Benefits:
- No process downtime required for installation
- No maintenance or recalibration required
- Reduces operational costs
- Lower total cost of ownership
- Improves process control
- Compatible with most pipe materials/schedules
- Can be installed in tight, remote location
- Works in the presence of scale or entrained air

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