Advancing Water Treatment With Responsible Innovation™

Case Study: Wastewater Treatment, Equalization Tank Odors

INTRODUCTION:

A Florida wastewater treatment plant had a recurring process problem with odors that seemed to fluctuate with different times of the year and the weather, but never completely went away. The odors generated numerous complaints from the public.

After working with other companies with no lasting resolution, United was asked to investigate and provide a solution.

INVESTIGATION:

The initial investigation found that influent into the plant was flowing through large equalization tanks, which is where the odors were developing. All of the wastewater for the district flowed through these tanks.

As the flow into the tanks diminished, slowing the overall flow through the tanks, grease in the wastewater floated to the top creating large grease caps. Particularly with warmer weather, the grease caps combined with the unpleasant organic orders that are part of wastewater developed stronger odors that were a nuisance for all nearby and resulted in the complaints.

IMPLEMENTATION:

A liquid bacteria and enzyme combination was fed into the tanks at a regular rate to help break through and control the amount of grease in the tanks, while controlling odors.

Product used:

- **United 384 PRE-TREAT Stabilized Liquid Bacteria and Enzyme Concentrate** – Automatically fed directly into the equalization tanks at timed intervals with a peristaltic metering pump to reduce the grease cap and provide continued control of grease buildup.

RESULTS:

The grease caps and their resulting odors in the tanks were significantly reduced, eliminating the complaints from the public.

CONCLUSION:

Even with changing weather conditions (i.e. increased temperatures and drier, low flow seasons), the use of the proper combination of liquid bacteria and enzymes in equalization tanks will considerably reduce grease caps and odors. Feeding product automatically with a peristaltic metering pump best allows for applying the proper feed rates throughout the day.