



Case Study

Odor Control

VALADCO CO-OP / Minnesota Pollution Control Agency

Dr. Al Heber, Ph.D. P.E.

Purdue University

FACILITY

The facility involved in the test was a 14,600-head nursery/finisher in Olvia, MN. The unit had 24" pull plugs that were recharged with lagoon water. The storage system consisted of a 20 million-gallon, 6 acre primary lagoon and an 8 million-gallon secondary lagoon. Maximum depth in the primary reached 12 feet deep.

PRE-PITCHARGER ENVIRONMENT

This facility was being monitored by the Minnesota Pollution Control Agency (MPCA) for hydrogen sulfide violations at the property lines. Between April and September, hydrogen sulfide readings were taken every 30 minutes, 24 hours per day. In addition, manure had built-up in the pull plug pits as well as the primary lagoon.

PITCHARGER BIOSYSTEM ENVIRONMENT

PitCharger was added to both the lagoons and the buildings in April. Within 30 days the hydrogen sulfide emissions from the buildings were reduced by 60%. Hydrogen sulfide emissions from the primary lagoon continued to drop through the spring and early summer. Small-scale aeration began on July 8th in the primary lagoon and by mid-August the facility was in compliance with the MPCA until the test ended September 11th.

IN CONCLUSION

The end results of treatment were lowered effluent readings of several key indicators of wastewater strength: biochemical oxygen demand, chemical oxygen demand, volatile fatty acids and suspended solids. These reduced values were directly correlated to reduced hydrogen sulfide emissions at facility property lines and significantly reduced odor levels.

www.pitcharger.com

info@pitcharger.com • 888-231-1002