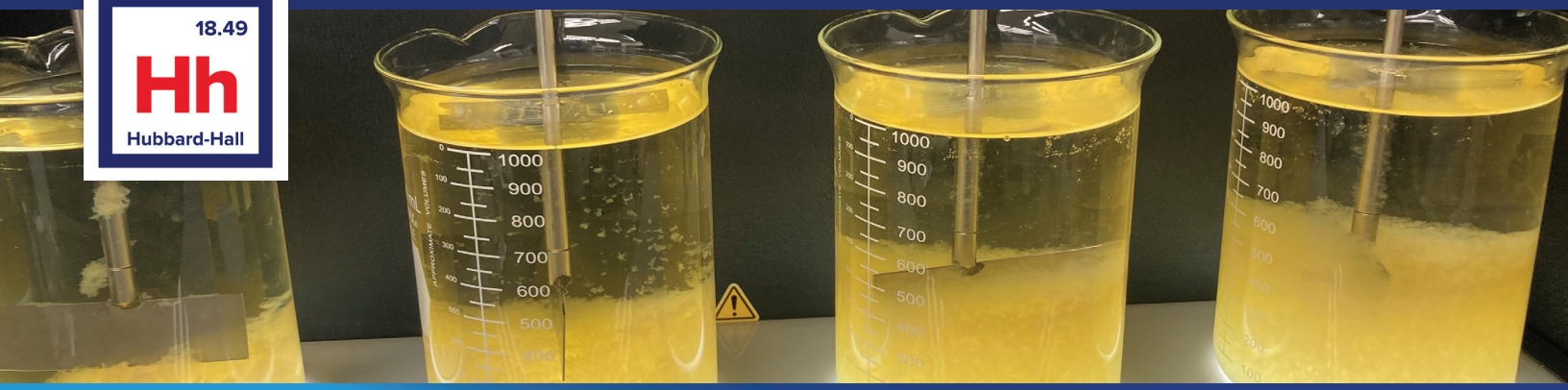


Treating the hard to treat

Case Study: AquaPure

Getting Out of a Pickle: In-house Treatment Saves Manufacturer Almost $200,000

The Challenge

A manufacturer was not utilizing their wastewater treatment system for its pickle tank, which was part of their finishing operation. Instead, the company was hauling it offsite to be treated at about $10,000 per batch. When the manufacturer looked into having the pickle tank treated in-house, it was told by its former supplier that the chemical cost would increase from $100,000 to $400,000 per year to convert the system to treat the pickle tank, too. The matter also concerned the manufacturer's 'cradle-to-grave' approach to the product's life cycle, especially its ultimate disposal.

The Approach

Step one was to audit and define the equipment and current flows of the existing system. Then, Hubbard-Hall helped define the manufacturer's goals for treating the current system and adding the pickle tank. It was decided that the optimum solution would be to treat the pickle tank in-house at a cost significantly less than hauling it away.

Step two was to use a chemistry approach, utilizing jar testing, to define the best **AquaPure** product treatment options for the existing water and the water after the measured addition of the pickle tank.

Step three involved applying a chemical engineering approach to tailor the **AquaPure** products into specific feed recommendations that worked in the manufacturer's existing equipment and calculating

Executive Summary

Hubbard-Hall helped a manufacturer cut costs and improve sustainability by enabling in-house treatment of its pickle tank.

- The manufacturer sought to eliminate expensive offsite waste treatment for its pickle tank.
- Hubbard-Hall provided a cost-effective AquaPure solution without additional capital expenses or a $300,000 chemical cost increase.
- The new in-house treatment saved the manufacturer $195,000 annually while enhancing process control and sustainability.

projected operating costs for treating the existing water with and without the extra pickle feed addition.

Step four involved demonstrating the proposed system in the manufacturer's laboratory. A series of jar tests showed the system was robust and could successfully treat the water, even with significant variables in the pickle concentration and treatment feed rates.

Step five is the inline trial. Performed under the supervision and assistance of the AquaPure Technical Team, the trial was successful, and the projected treatment required results and cost savings goals were achieved. The manufacturer now treats the pickle material in-house, thus eliminating the costly hauling.

The Outcome

The **AquaPure** chemistries effectively treated the pickle tank without requiring the manufacturer to purchase additional equipment. They also saved $120,000 in waste hauling expenses; the chemical costs have a net saving of about $75,000 annually compared to when they were hauling away the pickle tank.

The result was that the manufacturer also met its 'cradle-to-grave' obligations but treated the pickle tank in-house, where they had more control of the process than before.



"Hubbard-Hall's solution helped us bring treatment in-house, saving nearly $200,000 a year while maintaining process control and sustainability."

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