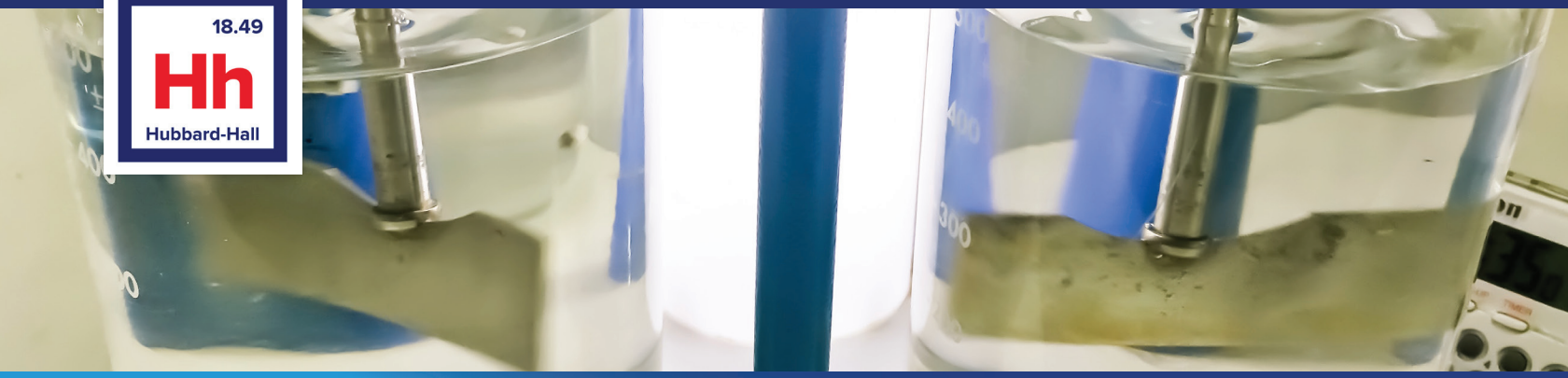

Treating the hard to treat

Case Study: AquaPure I-300

Removing Increased Zinc Concentration in the Waste Stream

The Challenge

A leading shooting sports manufacturer faced compliance issues as elevated zinc concentrations in their wastewater threatened their discharge limits. The problem arose when the company reduced water flow to conserve resources, unintentionally increasing zinc levels in their waste stream. This situation caused significant stress for the Environmental Health and Safety (EHS) Manager, who was concerned about maintaining compliance. The company turned to Hubbard-Hall to resolve the issue and prevent future problems.

The Approach

Hubbard-Hall's team began with a comprehensive systems audit to evaluate the facility's equipment, current chemistry, and operational processes. The personalized assessment revealed that the aluminum-based chemistry being used was not settling contaminants quickly enough, leading to carryover and elevated discharge levels.

To address the issue, Hubbard-Hall recommended switching to a combination of **AquaPure I-300**, an iron-based blend, and **B-Cat Polymer.** This solution proved more effective at capturing contaminants and clearing the water, resulting in faster settling and reduced zinc concentrations.

Beyond simply implementing a new chemistry, Hubbard-Hall provided hands-on training for the facility's operators. The team demonstrated jar testing as a method for determining optimal chemical dosing.

Executive Summary

Hubbard-Hall helped a shooting sports manufacturer reduce zinc in wastewater caused by lower water flow, achieving compliance and empowering operators.

- Reduced water flow inadvertently caused elevated zinc levels in the waste stream.
- Hubbard-Hall conducted a systems audit and identified chemistry inefficiencies.
- **AquaPure I-300** and **B-Cat Polymer** were introduced to resolve the issue.
- Operators received training to perform jar testing for ongoing self-management.

This training empowered the operators to monitor and adjust their wastewater treatment processes in real-time, ensuring continued compliance even as wastewater conditions fluctuated throughout the day due to production changes.

The Outcome

The introduction of **AquaPure I-300** and **B-Cat Polymer** successfully resolved the issue of increased zinc concentrations, bringing the company's discharge levels well below regulatory limits. Operators gained the knowledge and tools needed to independently manage their wastewater treatment processes, reducing reliance on external support and providing long-term operational stability.

Before Hubbard-Hall's team left the facility, the company reported, "Our numbers have never been this low." The EHS Manager now enjoys peace of mind, knowing the facility is operating well within compliance standards and is prepared to address any future challenges proactively.

> "Our numbers have never been this low, and now we have the knowledge and tools to manage our wastewater effectively on our own."
>
> **Facility Operator**

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