



Treating the Hard to Treat

With 525 consults per year, our experts are trusted tank side. To stay within discharge limits, you must know what's in your wastewater and how it got there. Our experts can help you optimize your treatment plan, even if it means making changes upstream.

5 ways to remove five metals in your wastewater

Have you struggled with removing metals from your wastewater stream? Hubbard-Hall will look at the top five ways to remove chrome, nickel, copper, zinc, and cadmium from metal finishing wastewater. We will also go over hydroxide versus sulfide as well as metal precipitants and how to use them. Learn:

- Hydroxide versus sulfide precipitation.
- Metal precipitants: how and when to use them.
- Flocculants: the differences in them, their makeup, and their use.
- Mechanical treatment, such as membrane filtration, electrocoagulation, and ion exchange.

Phosphates: How they impact your discharge

To meet EPA regulations, a facility needs to understand how to remove phosphorus from its water. This session will cover two processes – chemical and biological removal. The presentation looks at what the future holds and further discussion around additional work that is being done - such as the Hypoxia Task Force, industry research for better practices, and nutrition management plans for the recovery of impaired water. Learn:

- About the element phosphorus and its uses.
- How it can ultimately lead to the eutrophication of our water supply and how to alleviate this issue.
- How to remove phosphorus from wastewater—chemical and biological.
- What the future of wastewater looks like.

5 ways to future proof your wastewater system

Whether you are scaling up production or just want to ensure that your wastewater system is running smoothly for the future, planning is crucial. Let's look at changes and precautions that a plant can do to ensure that its wastewater system is up to par with the production demands. Learn:

- If production increases, can your wastewater system keep up with the increased flow?
- How do you remove the metal contaminants from the wastewater effectively?
- Has phosphorus showed up on your discharge permit; are there concerns about how to remove it effectively?
- Let's discuss the top ways to remove phosphorus from your wastewater system.

Start to finish... upstream solutions for hard-to-treat metals in wastewater treatment

Metal finishing operations struggle with removing metal ions in their wastewater treatment process. This presentation covers how to maintain regulated levels of metal with a concentration on less cost and chemistry. Learn:

- How to implement solutions in the upstream operations to mitigate metal problems.
- The benefits of choosing a better cleaning chemistry.
- How to achieve higher efficiency and lower cost in wastewater treatment.

Wastewater treatment for metal finishers

Often the manufacturing world looks at wastewater treatment as a baffling process. The treatment systems are given the least amount of attention in a plant. The thought is that if there are no violations from the wastewater treatment, then everything is going smooth. This is a process that never makes a dime for the plant, and often costs thousands to run. In this discussion we showcase ways to prevent fines that come along with regulation level violations. Learn:

- Ways that LEAN wastewater treatment practices can help reduce the overall cost.
- How to maintain the requirements set by the discharge permits.
- How manufacturing facilities were able to save money and bring their treatment plants into compliance.
- How to maintain the levels that are compliant with constant regulation changes.