

Wastewater Case History

Eliminated Hazardous Waste Disposal with RM-10®

Challenge

An aerospace facility had a plating line that utilized hexavalent chromium. During the plating process, wastewater contaminated with chromium was produced causing wastewater treatment to be required to reduce the chromium to a less hazardous and a less soluble state.

The previous wastewater treatment program applied at the plant featured a conventional all-organic polymer for flocculation and settling out of the precipitated metals and other suspended solids in a settling tank. The settled sludge was then dewatered in a filter press to reduce water content. When the Toxicity Characteristic Leaching Procedure (TCLP) was performed on the resulting filter cake, it was classified as hazardous waste. Disposal of hazardous waste is typically three to four times the cost of non-hazardous waste and it requires more administration and additional documentation for waste manifests, reporting and record keeping.

CETCO Solution

CETCO Energy Services applied its patented RM-10® bentonite-based flocculent in place of the conventional flocculent. The bentonite particles in RM-10 absorb the Chrome (III) in the wastewater and render the metal non-leachable. TCLP testing of the cake resulting from the CETCO process proved the waste to no longer be hazardous. This allowed for less costly disposal and a decrease in the client's overall waste treatment costs.

Outcome

CETCO's RM-10 flocculent was successfully applied in the aerospace sector, turning a previously hazardous waste product into a delisted sludge while considerably reducing costs for the aerospace client.

