

## Wastewater Case History

# RM-10<sup>®</sup> Removes Hexavalent Chrome at Metal Fabricating Plant

### Challenge

The metal fabricating plant generates between 400 and 800 gallons of vibratory water per week, containing soap and suspended solids. The plant was unable to directly discharge its process water back into the environment since it did not meet government regulations. The problem was that the biochemical oxygen demand in process water was more than 10,000 parts per million (PPM), when it needed to be below 500 PPM for safe discharge. The plant attempted to address the issue with the use of a centrifuge unit, but this alone did not treat the vibratory water sufficiently so they turned to CETCO Energy Services for an alternative wastewater treatment.

### CETCO Solution

CETCO subsequently identified its flocculant, RM-10<sup>®</sup> as the ideal solution to the plant's issue. RM-10 causes fine particulates to clump together into floccules. These clumps will then float or sink and are suitable for filtering. The RM-10 encapsulates the hazardous components; the resulting clumps are safe and non-leachable, allowing for simple and safe disposal.

The plant subsequently purchased a SA 200 Wastewater Treatment System and utilized CETCO's RM-10 flocculant. The versatility of RM-10 chemistry allows the plant to treat a new wastewater stream containing hexavalent chrome. By first converting the hexavalent chrome to trivalent chrome, the plant could then apply a single addition of RM-10.

### Outcome

The RM-10 flocculant was successful in the removal of hexavalent chrome from the vibratory water, allowing for safe release. With the vibratory water now meeting all government water regulations, the plant is now able to quickly and safely release its wastewater, reducing costs and allowing continuous operations at the plant.