



Industrial Laundry

This facility washes shop towels, uniforms, and floor mats from a variety of industrial clients. The wastewater has heavy metals, hydrocarbons, and oil/greases. The staff has heavily modified the treatment system with mixing tanks and longer detention time for the chemicals to work. The treatment consisted of lime addition, calcium Chloride, an aluminum based coagulant, and an anionic flocculant. The treatment kept them just under the wire for compliance, but the chemical costs were high relative to other similar facilities.

In a search to reduce costs and improve discharge compliance, the facility contacted Integrated Engineers to evaluate the Floccin-H as an alternative. Floccin-H was tested and proved to reduce the effluent limits to well below compliance and provided a non-leachable sludge (see the analytical data below, units in ppm).

Metal	Treated
Cadmium	<0.0020
Chromium	0.0069
Copper	0.10
Lead	0.037
Nickel	<0.010
Silver	<0.0050
Zinc	0.14

TCLP Test (Method 1300/6010B)

Arsenic	<1.0
Barium	<2.0
Cadmium	<0.10
Chromium	<0.50
Lead	<1.0
Mercury	<0.010
Selenium	<0.40
Silver	<0.50



The cost benefits are being evaluated since the new sludge will not leach the heavy metals reducing the sludge haul-off costs.