



Truck Wash

This facility washes out the internal tanks of tanker trucks. Generating 10,000 gallons/day of wastewater consisting of the residual liquid within the tanks combined with soaps, acids, and caustic cleaning products.

The wastewater flowed into a central sump and was pumped into one of their two 5000 gallon Reaction Tanks. The operator then added Ferric Chloride (40 gallons), sulfuric acid (10 gallons), caustic (25 gallons), and finally lime (25 pounds). After mixing for 45 minutes, a polymer (flocculant) was added to increase the flock size and enhance settling, mixed an additional 5 minutes. The mixer was then turned off and the solids required a settling time of 6 hours prior to decanting. After decanting, the solids were pumped to a sludge holding tank, through a 6 cubic foot filter press, and the water discharged to the city.

The Floccin-1107 was tested and it was found that the process could be performed in a shorter amount of time. The pH was adjusted from 13 to a pH of 7 using sulfuric acid (10 gallons). Then the wastewater was treated with Floccin 1107 (200 lbs on average) and mixed for 15 minutes. Adding these two chemicals took 20 minutes to perform. The water required only 1 hour to settle before decanting. The solids from 2 batches filled 1 press load, thereby doubling the press capacity and generating less solids/batch.



Floccin Savings:

The savings for the facility came in the form of labor, wastewater throughput, and being in discharge compliance. The cost of treatment for the chemistry remained the same, but the chemicals used decreased from 5 (acid, caustic, lime, ferric, polymer) down to 2 (sulfuric acid and Floccin-1107). The labor savings is ½-manday/day as less time is used to clean the press and manage the chemistry and mistreatments and retreating batches.

The Floccin Benefit:

The Floccin-1107 saves operator time, treats more reliably, reduced the facility costs, and provides discharge compliance.