

CAF® CASE STUDY



Tortilla Plant

Problem:

A major tortilla plant, producer of corn and flour tortillas, tortilla strips and taco shells, was having problems with high levels of contaminants in their wastewater. Their major sources of waste are from their corn cooking operation and from their principal plant clean up performed twice a week. Although minor, boiler blow down and fryer cleaning are also waste sources for this client.

The plant's only form of wastewater treatment prior to discharge was screening; there was no equalization, pH adjustment, etc. The wastewater characteristics included high concentrations of organic and suspended material as well as a low pH. The contaminants of greatest concern in the effluent stream were averaging 5,247 mg/l of TSS and 20,048 mg/l of COD.



CAF Installation at a Tortilla Plant.

Solution:

The tortilla plant used source control combined with minimal wastewater treatment prior to discharging effluent to the local sanitary sewer. However, due to an increase in production, the plant was experiencing problems with particulate matter (corn skin, traces of lime, wheat flour, and soap) in their effluent. They were required to remove a significant portion of organic and suspended solid material or face additional sewer connection fees and annual surcharge fees.

| CAF Performance | | | |
|-----------------|-----------------|-----------------|--------------------|
| | <u>Influent</u> | <u>Effluent</u> | <u>% Reduction</u> |
| TSS | 6,590 | 220 | 97 |
| COD | 32,600 | 14,100 | 57 |

An economic analysis was performed and the capital, operating, and maintenance costs for the wastewater treatment system were compared to the capital costs to increase sewer capacity units and the current operating costs reflected in the annual surcharge fees. The comparison clearly showed that the Hydrocal CAF wastewater treatment system was economically the best alternative.

The customer installed a CAF-10 to operate 24 hours; 7 days per week.

The Solution is Clear.

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