



WATER TREATMENT

# Settling process and filter press

**CASE STUDY TAG 41A40**

# ANALYSIS OF THE RESULTS

TAG 41A40



WATER TREATMENT

## PLANT:

Cardboard box plant in Quebec.

## SETUP:

In the 1990s, I worked with Cascades to develop a wastewater treatment system to dewater sludge using a filter press. It was the first project of its kind to be completed in Canada (North America). For this type of water, the cardboard industry used to use rotary drum technology. In 2002, the volume of sludge to be treated increased and batch treatment was no longer feasible. The plant wanted to use continuous wastewater treatment and chose the system recommended by TAG Canada.

## CURRENT PROGRAM:

The program involved building a system comprising coagulation, flocculation, settling, and dewatering on a filter press. The setup and performance of each step was to keep operator intervention to a minimum (less than one hour per day).

## TAG PROGRAM:

TAG 41A40 was used for the size and strength of the floc. Analyses determined that the optimal dosage of TAG 41A40 was similar to the coagulant dosages previously used.

## RESULTS AND ADVANTAGES:

The system was able to treat all the water in the plant. The sludge dewatered by the filter press had the consistency of solid shoe wax. The operator's intervention was limited to once a day and a light was installed in the plant to signal when the filter press was ready to be emptied.

## CONCLUSION:

The client was very satisfied with the program; operator intervention was reduced by 90%. No chemicals needed to be handled, except when filling the hopper with a powder flocculant and installing the hose for transfer from the TAG41A40 tank.

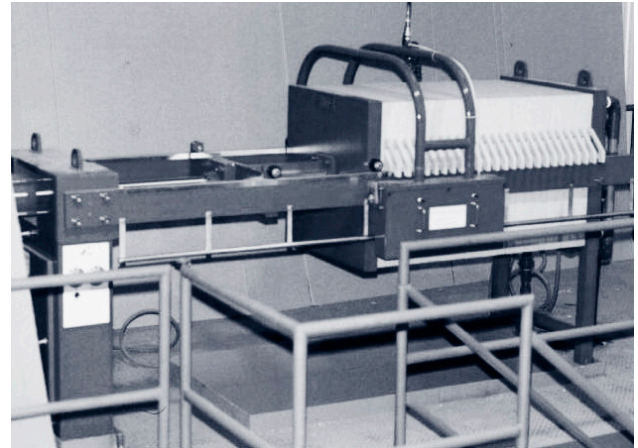
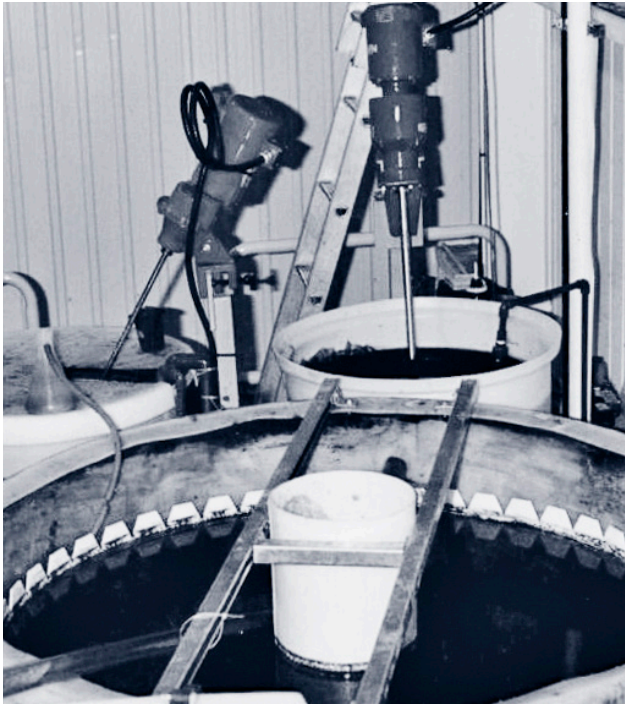
# STEPS

## IN THE WASTEWATER TREATMENT PROCESS

TAG 41A40

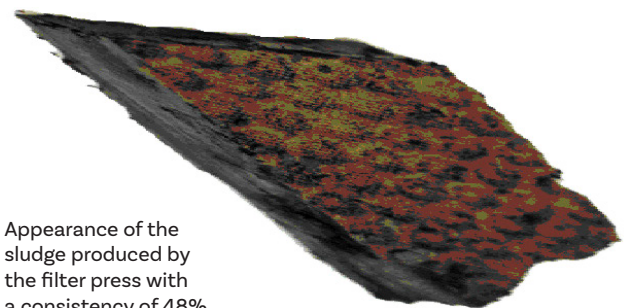


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The flocs at the bottom of the decanter were pumped into the filter press. At that point, the percentage of solids increased from 3% to 5% for the sludge to about 45% to 55% in the filter press cake.

- Wastewater was sent to a small tank for coagulation.
- Then the water was transferred to the adjacent tank for flocculation, which consisted of making a large floc with the ink sediment.
- The flocs and water were transferred to the center of the clarifier to help separate the water from the sediment.



Appearance of the sludge produced by the filter press with a consistency of 48%..