

Case Study on a Power Plant

A Power Plant located in northern CA operates a 50 megawatt waste burning power. They use a cold lime water softening process to soften their processed water, R/O, cooling tower makeup, gas scrubber, etc. The solids generated from the process are primarily calcium carbonate and magnesium hydroxide.

The original design was for belt press dewatering, which was difficult to operate and was abandoned. The wet solids were dealt with in another way, until about 2012 when the dewatering of this waste stream became important.

A local engineering company was contacted and samples of the waste were lab tested for feasibility confirmation. Full scale pilot testing would have been performed if the lab testing wasn't extremely successful.

Based on the solids generated by the plant, a relatively small 15 cu ft., 800 mm plate size, 32mm cake thickness, 28-plate gasket press was supplied. The plates supplied have a unique handle design with rollers on one handle side to facilitate easy movement of the plates without a shifter.

Challenges they faced:

They use a cold lime water softening process to soften their processed water, R/O, cooling tower makeup, gas scrubber, etc. The solids generated from the process are primarily calcium carbonate and magnesium hydroxide.

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Solution:

An engineering company in CA specializing in wastewater treatment was contracted to solve the problem. They lab tested samples of the waste. Based on the solids generated by the plant, their engineering team worked together with Hengda Filter Press to supply a relatively small 15 cu ft, 800 mm plate size, 32 mm cake thickness, 28-plate gasket press. The plates supplied by Hengda Filter Press have a unique handle design with rollers on the handle side to facilitate easy movements of plates without shifter.



Benefits:

The result was an easy to operate filter press that allows their solid waste to be treated and all waste water generated on-site is recycled in the process.