



## SUMMARY

### Goals:

- Consistent temperature control
- Achieve smooth operation
- Reduce maintenance

### Accomplishments:

- Consistent smooth operation
- Precise temperature control
- Heaters have been in operation for 22 years with an annual maintenance plan

A bleached fiber pulp mill in Georgia, USA, needed to provide consistent green liquor temperature to two causticizing lines in the recovery plant.

The mill operates two nearly identical causticizing and lime kiln lines and heats green liquor to each line - up to 2000 gpm of green liquor plant-wide. Precise temperature control to the slaker is crucial to smooth operation.

## CONDITIONS

### For each green liquor line:

Fluid:	Green Liquor
Flow Rates:	525-1100 GPM [119-250 m <sup>3</sup> /hr]
Inlet Temperatures:	180-185°F [82-85°C]
Discharge Temperature:	200°F [93°C]
Fluid Supply Pressure:	200°F [93°C]
Steam Supply Pressure:	80 psig [5.5 barg]

## SOLUTION

Hydro-Thermal has supplied (2) K414AN Hydroheaters to heat inline between the supply tank and slakers. The heaters are identical for each line, first installed in 1990. After 15 years of operation, the mill replaced both heaters with an upgraded design and purchased (2) K514AN Hydroheaters.

A Hydroheater has been in continuous service on each line for green liquor heating for 22 years. The mill performs annual maintenance inspections (seal replacements), and rebuilds when needed. The heaters run without issue and provide stability to slakers and causticizers.