



BIOMASS PROJECT

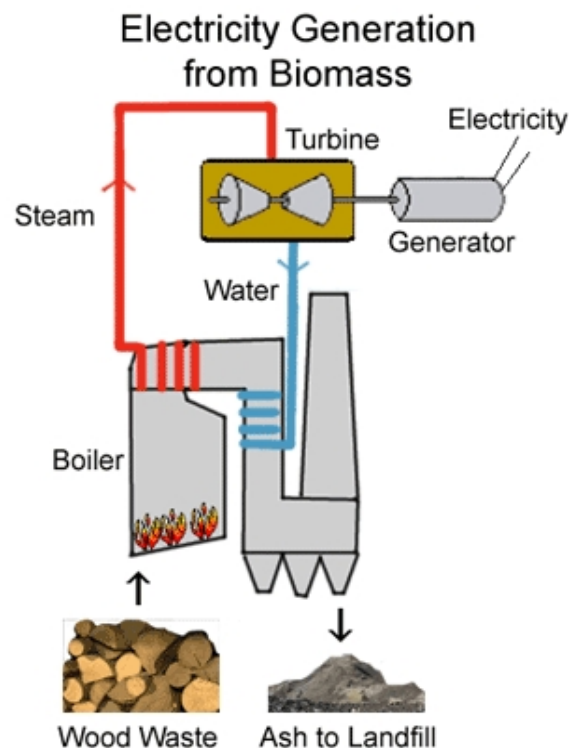
PULP AND PAPER MILL – SOUTHEAST USA

TOTAL INSTALLED COST \$15,000,000

PENTA provided complete detailed engineering and design for a new plant utilizing a waste fuel boiler for the processing and combustion of wood and paper waste into steam.

This project included dewatering of paper mill sludge utilizing:

- Andritz Gravity Tables
- Screw Presses
- Feedwater Treatment Systems
- Steam Turbine Feedwater Pump
- Refurbished Bubbling Bed Boiler with all Auxiliary Systems
- Economizer
- Air Heater
- Precipitator
- Scrubber
- Ewing Turbine Generator
- Surge Tanks
- Storage Tanks



PENTA prepared the site plans, the general arrangements, designed all pipe racks, designed all steam piping, routed all overhead and underground utilities to the site including 4,000 feet of high pressure steam line. In addition, performed structural engineering to refurbish and reuse an existing metal frame building for the new press building, performed all foundation design, prepared electrical grounding plans and details.