

## 19700 kW Biomass Power Plant [Inventory ID #235826]



- Boiler unit is a Riley type VR boiler continuous rating 170,000 pounds per hour steam at 1280 psig and 955 °F
  - Boiler is top supported with Detroit Hydrograte Stoker
  - Water cooled vibrating grate
  - can burn up to 50% moisture wood chips
  - 4326 btu/lb
  - 59,902 lbs./hr fuel
  - with feed water temperature 402 ° F
- Steam Turbine Generator is General Electric 19700 kw
  - serial number 155030
  - 13 stage condensing unit with four uncontrolled extractions
  - 5596 rpm
  - Turbine and Lufkin Gear box mounted on one skid driving GE 21890 kva
  - 1800 rpm
  - 13800 v
  - 3 phase
  - 60 hz
  - TEWAC
  - Brushless exciter Generator
- Condenser Graham surface condenser
  - 2 in. HgA
  - condensing 126,000 pounds per hour steam
  - 19,770 square feet
  - 316SS tubes
- Cooling Tower Thermal Dynamic Towers 22,000 gpm
- Induced draft 2 cell
- ESP Belco Technologies BT-30
- Substation 15.75/21 MVA
- 34.5 kv Grdy/13.8 kv

- 19 Acre land with well water
- 34.5 kv transmission power line
- Shut down in 2013 maintained to start back-up
- Location: Eastern USA

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