Conyers Waste To Energy Project

**CLIENT:** Pratt Industries  
**LOCATION:** GA, USA  
**COMPLETION:** 2009

Pratt Industries personnel, now part of Build Run Repair (BRR), oversaw the design and construction of the Conyers waste-to-energy plant adjacent to its paperboard mill. Its capacity is 9.3 MWe and on average the plant can produce 90 tonne/hour of steam.

The wood waste comes from sawmill residuals, land clearing, road widening, as well as construction and demolition (C&D) sites. The plant also gasifies the plastic contaminants that are removed from the recovered fibre that Pratt Industries uses as furnish for the paper machine.

The wood and plastic are mixed in a 70:30 ratio before being fed to the bubbling fluid bed boiler at a rate of 29.5 tonnes per hour. There are two startup burners operating on natural gas. The operating temperature of the bed is 760°C. The steam passes through three superheater sections before entering the turbine. At the superheater outlet steam pressure is 64 bar at 460°C. Low-pressure steam is exhausted from the turbine at 11 bar; high-pressure steam is extracted at 18 bar.

The exhaust steam is sent to the paper mill, mainly for use in the dryer section. Approximately 70% of the steam is returned to the boiler as condensate.

**BRR’s scope included the following:**
- Engineering
- Procurement
- Construction management
- Commissioning