

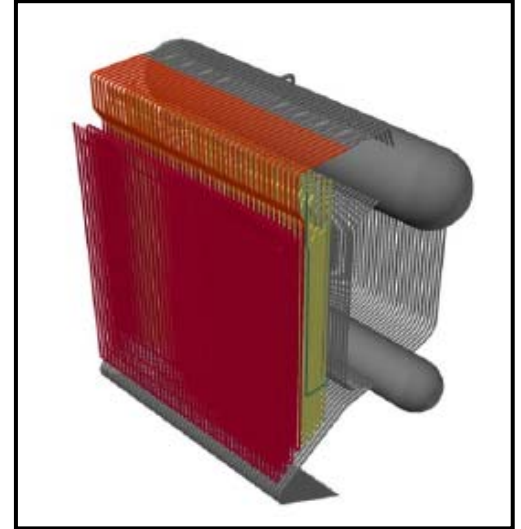
Project Description



Power Boiler Superheater Upgrade Simpson Tacoma Kraft Tacoma, Washington

Project Scope

In 2009, Simpson Tacoma Kraft (one of the oldest forest products companies on the west coast) will be bringing on-line a new 55-megawatt biomass cogeneration facility. According to one industry source, this is the largest co-generation project build in the United States in the past 20 years. High pressure steam will be generated from combustion of wood residuals, supplied by the company's saw mills, and chemical black liquor from its pulping operations. In 2000 and 2006 respectively, JANSEN had supplied combustion air delivery upgrades on the Tacoma mill's recovery boiler (3-level air upgrade) and hog fuel boiler (OFA system upgrade).



As part of the co-generation project, JANSEN has provided engineering and materials for the superheater upgrade of the Riley Stoker hog fuel-fired power boiler. The unit was installed in 1991 with a maximum allowable working pressure of 1,050 psig, and has been operated at steaming conditions at the superheater outlet of 300,000 lb/hr at 440 psig and 700°F. In order to maximize the use of the new turbine generator, the mill wished to increase the steam outlet pressure and temperature to 875 psig and 825°F, respectively.

JANSEN's design and supply of the superheater upgrade included the addition of new secondary superheater headers and pendants, new steam supply piping from the existing primary superheater to the new secondary superheater, inter-stage steam attemperatator assembly and sweetwater condenser, support hangers for the new secondary superheater, and a new bent tube panel to relocate an existing sootblower lane access door.

The superheater upgrade was installed during an outage in September of 2008. JANSEN has also supplied a new economizer for this unit.

Results

Initial commissioning of the superheater modification and its components was successful, as well as long term results after the co-generation project was completed.

