

## PROJECT CAPABILITIES



### BOILER CONVERSION TO BIOMASS BURNING



#### Scope of Service

Boiler owner/operators in recent years have been motivated to convert existing fossil fuel-fired boilers to burn some, or exclusively biomass fuels. Biomass fuels often provide lower fuel costs and lower flue gas emissions as well as being considered a “green” renewable resource. Whether the boiler currently burns exclusively fossil fuels or burns a combination of fossil and biomass fuels, JANSEN has the experience and capabilities to provide the necessary services to enhance biomass firing in most all boiler configurations.

A recommended phased approach to fuel conversion projects is listed below:

- Initial assessment of feasibility and required modifications to generate early budgetary costs.
- Engineering evaluation of existing boiler to determine the unit’s capabilities when operating with the new fuel (pressure parts, auxiliary and air pollution control equipment).
- Definition engineering to develop +/- 10% accuracy cost estimate.
- Engineering design, fabrication, and materials supply.
- Installation.
- Operator training and start-up assistance.

JANSEN has the capability and experience to carry out any or all of these steps.

**Selected References (see next page)**

**Selected References**  
**Boiler Conversion to Biomass Burning**

AES Corporation - Lufkin, TX  
Catalyst Paper - Biron, WI  
EPCOR Canada - Squamish, BC  
Escanaba Green Energy - Escanaba, MI  
Great River Energy - Elk River, MN  
Great River Energy - Spiritwood, ND  
Hu Honua Bioenergy LLC - Hilo, HI  
Madera Energy - Vicksburg, MS  
Minnesota Power - Duluth, MN  
New Ulm Public Utility - New Ulm, MN  
Packaging Corporation of America - Valdosta, GA  
ReEnergy Holdings - Fort Drum, NY  
Sonoco Products Co. - Hartsville, SC  
Springs Global US, Inc. - Lancaster, SC  
Turbine Diagnostics Services, Inc. - Forest City, NC  
Weyerhaeuser Paper Company - New Bern, NC