



# Riley Power

## SUCCESS STORIES

### SCGC BELLE GLADE #1 & #2

#### BOILER REBUILD

**LOCATION** BELLE GLADE, FL, U.S.A.

**CAPACITY** 139,000 LBS./HR. OF SH STEAM @ 550°F AND 400 PSIG

#### PROJECT OVERVIEW

Sugar Cane Growers Cooperative of Florida is comprised of 45 grower-owners who produce 3 million tons of sugarcane on approximately 70,000 acres of land primarily in Palm Beach County, Florida. The Cooperative owns and operates a raw sugar processing facility in Belle Glade that crushes the sugarcane stalks and extracts the raw sugar, molasses and fibrous material called bagasse.

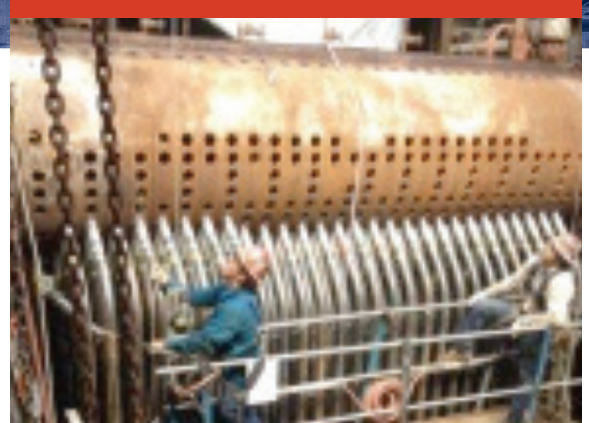
Co-product is an important co-product that is used as a power source to generate steam and power in facilities' boilers. Over 30 million gallons of fuel oil is conserved each year by using bagasse as a fuel source.

The original Riley Stoker Corp. boiler units were commissioned in 1961. They were designed as cold casing "tube and tile" construction. These boilers were experiencing a large amount of burn through the walls, excess air infiltration and loss of efficiency due to the original design. Tube and tile construction is marked by the fact that there is no gas sealing membrane between the tubes. Instead, the space between the tubes is filled with refractory tiles. Over time the refractory loses strength, and the hot furnace gasses burn through the insulation and casing.



The Cooperative had a tight schedule for delivery and budgetary constraints. The team at Riley Power contacted a team at BTA and coordinated a delivery schedule for the reconstructed boilers. The team at TEI Construction Services provided a bid package and schedule to construct and install two rebuilt units. The Cooperative considered the schedule and risk and opted to rebuild the units over a two year period.

BTA was able to provide the finished materials in 16 weeks and TEI Construction was able to complete construction two weeks ahead of schedule. With these outstanding results, the Cooperative opted to award the bid for rebuilding the second unit to TEI Construction for the following year.



#### THE PROBLEM

Customer's units experiencing:

- + Burn through of casing
- + Extensive tube leakage
- + Air infiltration
- + Loss of efficiency
- + High fuel usage

#### INDUSTRY PROBLEM

Riley Power – BTA – TEI Construction

- + Provide synergy between project design, manufacturing operations, and construction services
- + Replace tube-and-tile construction with membrane wall
- + Eliminate substantial unit weight
- + Reduce air infiltration
- + Reduce fuel usage
- + Improve reliability
- + Improve efficiency

