

Pondview Heats Up Operations with Recycled Wood

Perhaps Jonathon Swift didn't know the recycling business when he said that you "can't make a silk purse out of a sow's ear". People in the recycling business know that recycling not only requires the vision to transform something, but also a considerable effort to make it happen. Not surprisingly, this combination of capitalizing on opportunity and hard work perfectly describes Ken Foley, the can-do president of Pondview, Inc. of East Providence, Rhode Island. Throughout his career and in his business, Ken wasted no time or materials to get the job done. In fact, Ken is so resourceful, he uses his own recycled wood to heat his facilities.

In the early sixties, Ken, a recently discharged army veteran, took a job as a UPS driver when he realized that there was money to be made in growing Christmas trees on his family's farm. He was right; he operated the farm in Rehoboth, Rhode Island for 15 years. As the story goes, he needed to have another acre cleared for 1000 new trees and after a frustrating delay in getting the local bulldozer guy to clear the next parcel, he decided to buy a bulldozer himself and get it cleared. As Ken puts it, "the very moment the OC4 Oliver bulldozer rolled off the truck, my neighbor came by and asked if I would do some work for him." With that request, a new excavating business was born. "I never planted another tree after that", Ken says with a laugh. And he didn't need to, the excavating and clearing business took off.

Initially permitted for utility, sewer, road work and major site clearing, Ken went on to



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purchase the necessary machinery including a D8 Cat for grading, a Komatsu 500 loader and several trucks. At the clearing sites, he was continually asked by the job site managers if he could provide dumpsters and Ken, always seizing new opportunities, said, "Yes!" and immediately purchased dumpsters to remove waste. Around the same time, New England states stopped building landfills, creating a market for waste disposal and recycling. As he received large amounts of Construction & Demolition (C&D) waste materials from Rhode Island and neighboring Massachusetts, he began to sort the metal for recycling and clean and grind the wood for new markets.

In 1997, Pondview officially entered the recycling business with the purchase of a Gruendler Grinder, an Action Screener and a Pioneer Jaw Crusher. As Ken put it, "why waste an opportunity to get paid for bringing the materials in and getting paid to have them go out?" Having a business model with a two-way revenue stream is further enhanced by the fact that 90% of the materials received are processed, recycled and reclaimed. "We are one of the few facilities that can claim a 90% processing rate," Ken says with pride. With a daily operating permit for 500 tons a day, that 90% represents 450 tons of materials daily that will be used again, which not only keeps Pondview profitable, but is a positive contribution to the environment.

Steve Bennett, General Manager of Pondview's operations since 2000, believes Pondview's success is due to its dedicated employees and always being on the look out for better, more resourceful solutions. Raised on a farm, Steve is no stranger to hard work or making the most of the materials at hand. As he suggests, Pondview's efficient process is a major component in their ability to deliver a high quality and rapid turn around of recycled materials.

The first step in the process begins with a Kobelco 400 excavator with a Genesis grapple removing large pieces of metal from the load. Pondview uses a "positive pick" system so this step ensures the safety of the pickers and eliminates possible clogs in the conveyor. Recyclable metals include light iron, cast, unprepared, aluminum and copper. Pondview has contracted with a scrap metal company to pick up the sorted metals daily.

Once the large metal is removed, the remainder is dumped into the Action Screener and then conveyed up to the picking line. Again, this is where Steve Bennett feels that the quality difference lies,

"We find the end result is better with the positive pick method. Employees are much more effective in separating the metal, wood and aggregate, eliminating re-processing or potential equipment issues. We are reselling the majority of this material and our customers expect it to be clean." In this instance, less is more. Less waste at the end of the process, means more profit for the company.

Working



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through a wood broker, Pondview has found a major outlet for their wood with the Boralex Wood Residue Electric Power Plant in Livermore Falls, Maine. Pondview



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ing with it as well." In 2001, Pondview became the beneficiary of their own wood recycling by using their scraps for heat. Consistent with their "no-waste" business model, they purchased an 800,000 BTU per hour wood fired Shop Heater from Biomass Combustion Systems (BCS) of Worcester, Massachusetts to heat their maintenance facility. This facility is over 10,000 square feet and houses their service operation for 30 plus vehicles. With three large overhead doors frequently open due to vehicle traffic, the cost of oil or gas was expensive and difficult to control. Now, by using their own wood scraps they are no longer subject to dramatic fluctuations in heating costs, but more importantly, the employees are warm. No small accomplishment considering that Rhode Island's temperatures average well below freezing in the winter months. As Ken's son, Kevin Foley says, "We love this system. It keeps us warm, saves us money and "recycles" our wood waste." In addition to converting their scrap wood to fuel, other features such as durability, ease of operation and clean emissions influenced Pondview's decision to select the BCS Wood furnace.

With 3/8" thick steel construction, this furnace is designed for an industrial environment and built to last for a long time. The firebox end walls are manufactured with "steel" to withstand years of hand firing. Ken did look at other wood furnaces, but it was clear that the BCS system, as he put it, "was rugged, durable and would hold up. The other systems didn't have the steel thickness and often the other companies didn't have the knowledge and experience with wood energy that Biomass Combustion did." The ample 60" long firebox allows the system to burn a substantial amount of wood at a time. Again, Kevin Foley describes its ease of use. "We have one person feed the system during the day, as needed, and again just before

processes about 150 tons of wood per day grinding the wood to 2" minus per Maine's specifications. As Ken Foley notes, "Most of the time the wood is received, processed, ground and on a truck to Maine in the same day. The C&D wood is very dry making it ideal for producing BTUs for heat. Of course, we have first hand knowledge of our scrap wood's BTU production because we heat our build-

he leaves at night. In the morning, the warm embers make re-lighting the fire easy. The system burns so efficiently, there is very little ash to clean out at the beginning of the week." The furnace is engineered to be clean burning. The BCS after burner chamber design minimizes particle emissions by re-burning flue gases through four separate right angle turns, maximizing combustion. When combustion is maximized the wood produces optimal BTUs and therefore minimal smoke. Naturally being safety conscious, Kevin tells the story of their experience after they first installed the system. "Although we expected the system to be clean burning, we just couldn't be sure until we checked ourselves. We kept going up on the roof to see if there was a spark from the stack and found nothing...every time." Ken is clear on his commitment to converting scrap to fuel. "Using our wood for heat is a natural extension of our philosophy, be self-sufficient when possible, maximize material use and keep costs down...all while keeping the employees warm through the cold Rhode Island winters.

We know it works, it's proven and we have never had a problem. In fact, if there are companies in the Providence area that want to heat with wood, but don't have the scrap, they are welcome to come pick it up here for free." The Foley family, Ken, his wife Linda and three sons, Kenny, Keith, and Kevin are all employed by the company and work hard to keep the operation running. Despite their round-the-clock attitude toward the business, it must be noted that they approach their entertainments with the same passion. Ken has four race cars



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and sponsors six softball teams (successful ones as evidenced by the three foot high collection of trophies in his office). They also have re-launched a traditional New England Clambake business started by Ken's grandfather on the family farm. Last year it served over 30,000 dinners to locals and visitor's alike. Apparently, in this family, "recycling" also applies to good ideas.

When it Comes to Wood Energy, Biomass Combustion Systems Has the Midas Touch

When fossil fuels were in seemingly endless supply and inexpensive, the only concern businesses had was getting on-time delivery. Not so now, world events and limited inventories are having a significant impact on a businesses' ability to manage their fuel budgets.

Biomass Combustion Systems (BCS) recognizes the solution for many companies, particularly in wood-based industries, is wood energy. As BCS' principal, Charlie Cary says, "Wood is a pure, renewable resource that gives back to the environment. In a time when the country is seeking alternative fuels, wood continues to be a reliable, low cost and available fuel source." As experts in wood energy, BCS has captured the power of wood by designing and manufacturing systems that convert wood to fuel. Designed for industrial users, these systems are built to be rugged and are able to withstand years of operation.

Fortunately, businesses like wood recycling, cabinet making, pallet manufacturing or lumber milling, have wood residue as a natural by-product of daily operations. It is readily available and a cost-free aspect of production. On the other hand, other fuels such as oil, gas and propane have had unpredictable price fluctuations making the effort to heat large and often open facilities costly. The cost savings for converting wood to fuel are significant. For a company paying \$.70 per therm of gas (100,000 BTU), each ton of wood is worth \$90.53* in BTUs. The key is to capture these savings in a system that can use these wood scraps safely, efficiently and for the long term.

BCS Shop Heaters take maximum advantage of wood as a fuel source because they are engineered to produce the maximum BTUs. The benefit is two fold, for each piece of wood, there is an optimal amount of heat produced and because the majority of the fuel is combusted for heat, that creates minimal emissions. As Charlie puts it, "In today's emission-sensitive environment, the

amount of heat produced is as important as limiting the emissions that go out the stack. To limit emissions, the BCS system is designed to optimize the combustion process, therefore reducing uncombusted gases and particulates, which are the cause of smoke." This is achieved through the systems after burner chamber which re-burns flue gases through four separate right angle turns.

The BCS Shop Heater's proven design has been in use for over 20 years with systems in a number of industries throughout the United States. A key to the systems continued use and longevity is its all-steel construction. This design feature, not only ensures its ruggedness, but allows the firebox to function as a first level heat exchanger, contributing directly to heat production. Unlike square refractory brick systems, the BCS Shop Heater has a round firebox. In the natural heating process, a round firebox equally distributes the stress of continuous expansion and contraction from heating and cooling, eliminating individual stress points and extending the life of the steel. Two Shop Heaters are available based on heating needs, an 800,000 BTU per hour and 450,000 BTU per hour system. According to Charlie Cary, the advantages of using these systems for heat are clear. "When it comes down to it, these systems are safe, clean and produce cheap BTUs." BCS has two separate wood energy product divisions. A boiler product which serves clients who have specialized and custom kiln-drying requirements and the hot air Shop Heater division which caters to operations that want to produce low cost BTUs with wood residue. Biomass Combustion Systems can be reached by phone at 508-798-5970 or on the web at www.biomasscombustion.com

* calculation based on 10% moisture wood, 85% efficiency of gas burner and 72% efficiency of wood burner