

TOLKO STARTS UP ENERGY SYSTEM AT PLYWOOD FACILITY

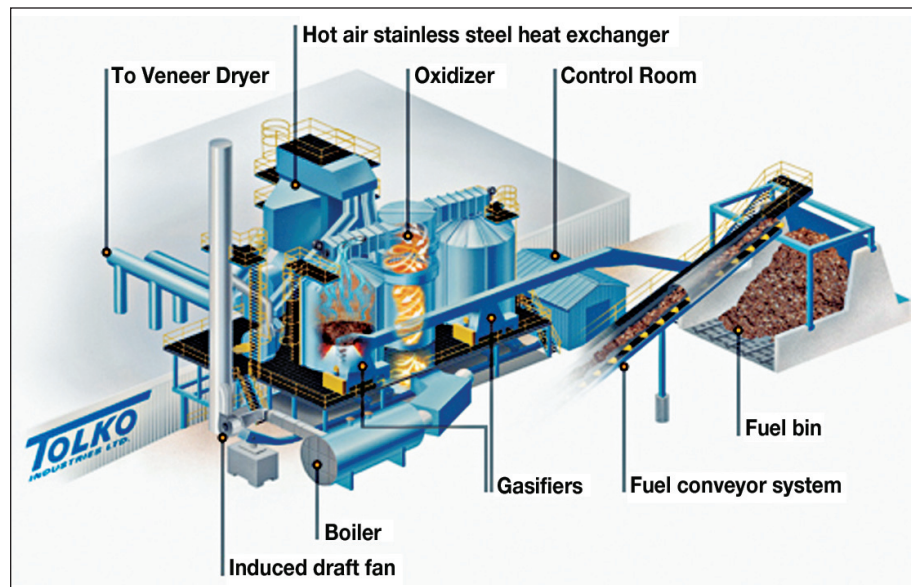
Tolko Industries Ltd. and Nexterra Energy Corp. announced they have successfully completed a gasification project at Tolko's Heffley Creek plywood mill near Kamloops, BC. The new "syngas" plant converts wood residue into low-cost, clean, thermal energy, replacing high-cost natural gas and moving this mill closer to energy self-sufficiency, according to the participants. The system will not only save the mill more than \$1.5 million in annual fuel costs, they report, but will also improve local air quality and reduce Tolko's greenhouse gas emissions by 12,000 tonnes per year.

"This project underscores Tolko's commitment to investing in technologies that make our mills more energy self-sufficient, and improves our environmental and bottom-line performance," says Jim Baskerville, Tolko's Regional Manager, Veneer and Plywood. "We are very pleased with the Nexterra gasifier system. It is user-friendly, simple to operate, and we are working with Nexterra to identify opportunities where we can apply the technology at other Tolko mills."

"Tolko is a terrific partner and we will continue to support their goal of becoming energy self-sufficient," says Jonathan Rhone, Nexterra's President and CEO.

Since the mid-1990s, the cost of natural gas has increased by 500-700%, leaving North America with some of the highest natural gas prices in the world and placing severe competitive pressures on North American forest companies.

North America's forest products in-



Nexterra "syngas" plant at Tolko Industries' plywood operation



Top, Nexterra President and CEO Jonathan Rhone, left, agrees with Tolko Regional Manager Jim Baskerville about the effectiveness of the new system.

dustry consumes more than 900 trillion Btu of natural gas and fuel oil each year at a cost of US \$8 billion, according to Nexterra.

Tolko is committed to continuously

improving its energy efficiency, conservation and production. This will be achieved through two primary activities: energy conservation initiatives such as BC Hydro's Power Smart program and

biomass energy production. Tolko's Heffley Creek Div. was chosen for this project because of its high natural gas use and the significant opportunity for cost savings and reduced emissions.

The Heffley Creek mill manufactures 3/8 in. to 1 in. structural grade plywood, and produces more than 200MMSF annually. It employs 197.

GASIFICATION

Gasification is a starved air process that uses heat to convert carbon-containing fuel into a biofuel called "syngas" or "producer gas." Syngas is a clean burning fuel that can be used as a substitute for natural gas, fuel oil or propane to produce process heat, steam, hot water and/or electricity for the forest products and other industries.

Compared to conventional wood combustion equipment, Nexterra reports that its gasification systems are simpler in design, less expensive to build, operate and maintain, and produce much lower emissions.

The gasification system at the Heffley Creek mill is designed to convert 13,000 bone dry tonnes per year of wood residue (bark) produced on-site into syngas. The syngas is then fully combusted to generate 40 GJ/hr of heat. This heat is used to displace approximately 235,000 GJ (gigajoules) per year of natural gas which is currently used to generate hot water for log conditioning and to dry veneer. The system will displace approximately 40% of the natural gas used throughout the mill. A future, second phase of the project may convert the balance of the mill from natural gas to syngas derived from wood residue.

Syngas is the gas produced when solid fuel is gasified. It is composed primarily of carbon monoxide, hydrogen and methane, as well as vapourized pyrolysis liquids, hydrocarbons, nitrogen and water.

The project received financial support and encouragement from the federal and provincial governments including Natural Resources Canada, TEAM (Technology Early Action Measures—a federal interdepartmental technology investment program) and Ethanol BC.

The turnkey plant was designed, fabricated and built in BC over the past year. It started up on May 9 and has been running in an almost continuous, automated mode since then. **PW**

This information was submitted by Vancouver, BC-based Nexterra Energy Corp., 604-637-2507; visit nexterra.ca.