

Virginia Fibre continues expansion and upgrades

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Capacity is twice what it was when furnishing recycled fiber to corrugating medium machine.

The Virginia Fibre plant, located outside Amherst, VA, northeast of Lynchburg, produces corrugating medium and linerboard. The plant uses a blend of virgin fiber and old corrugated containers (OCC) for the corrugating medium and 100% OCC for linerboard.

The company was formed in 1973 by Robert C. Macauley, chairman and CEO, along with Charles R. Chandler, now president and COO. The greenfield mill began operation in August 1975, averaging 450 tpd of corrugating medium.

The goal of Virginia Fibre is to "provide its customers with a highly valued product and customer service that positions Virginia Fibre as their preferred supplier of containerboard." Over the past several years the company has expanded and upgraded operations in order to increase capacity to approximately 1165 tpd.

In December of 1989 a new OCC system, designed by Rust Engineering, was brought on line. The construction included 50,000 ft² of covered space to accommodate 4000 tons of OCC, plus spare parts, according to Kent P. Snead, engineering manager. Initial capacity for the OCC plant was 500 tpd.

In order to increase capacity to 692 tpd, Virginia Fibre made several equipment modifications in 1993. A 600 hp



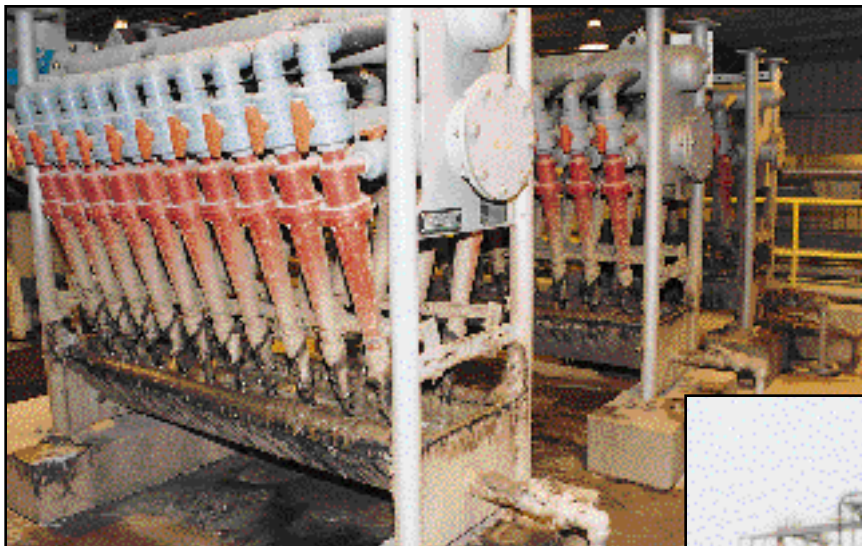
Logs are cut to size on the truck.

motor and larger impeller were installed on the pulping module. A lightweight rejects line, trommel screen, Sand Sep, and primary screens were added. Newer, high-capacity Uniflow cleaners were installed and an 18-ft Krofta Supracell dissolved-air clarifier replaced a 10-ft version.

Bales of OCC are transported by automated conveyor to a Beloit

Tri-Dyne low-consistency, continuous pulper. A ragger draws wires, tape, and other stringy material out of the vat. A Bel-Purge scavenger removes heavy and light contaminants and returns the slurry to the pulper. A junk tower traps large and heavy material. Cleaning progresses through trommel screens, high-density cleaners, coarse screens, and lightweight cleaners. The slurry makes two passes through Uniflow cleaners in series to ensure removal of waxes, hot melts, and stickies for linerboard. Process water is recirculated. A sludge press dewateres rejects before disposal.

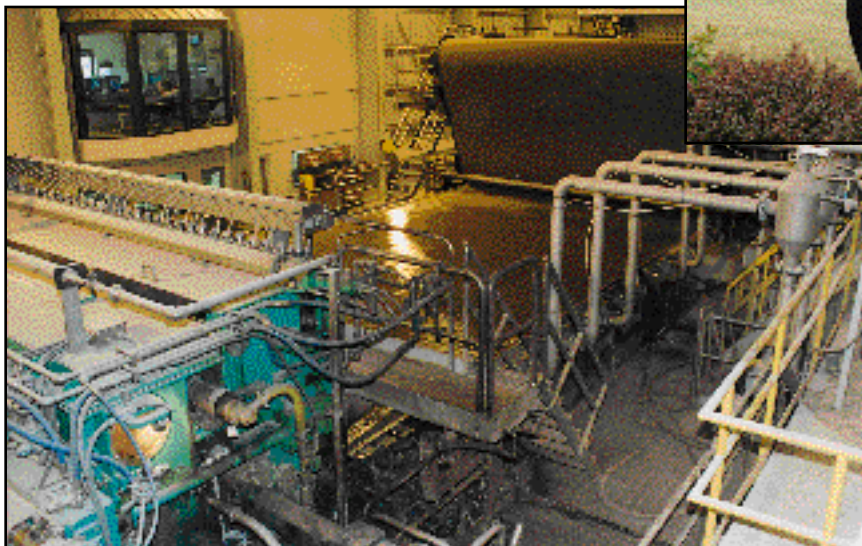
Both paper machines at Virginia Fibre were built by Beloit. The No. 1 machine is a 282-in. fourdrinier equipped with a Tampella headbox and top-wire former, according to Snead. Production in 1993 was 805 tpd. The No. 2 machine, commissioned Dec. 12, 1993, is a twin-wire linerboard machine with mini fourdrinier over conventional fourdrinier. Both



Centrifugal cleaners

primary and secondary headboxes are rectifier-roll, air-cushioned units. The machine produces 365 tpd of 26–42 psi (lb/1000 ft²) linerboard and corrugating medium from 100% OCC.

Measurex supplied a two-scanner quality control system with moisture measurement before the size press and weight

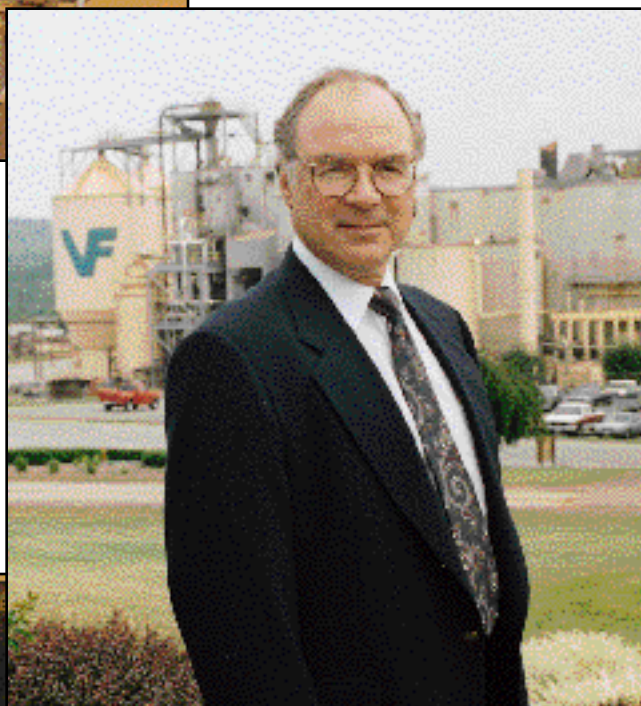


The No. 2 paper machine

and moisture measurement at the reel. Along with machine-direction and supervisory control, the paper machine is equipped with cross-direction and basis-weight control using autoslice

actuators on the headboxes and cross-direction moisture control at the press using a Devronizer. The system is linked to a Foxboro DCS system. Operators can access data from the Measurex equipment and manipulate measurement and control functions through the Foxboro consoles for full open integration.

The plan is to have the entire plant hooked up to the Foxboro DCS system



Charles R. Chandler

by the end of the decade, Chandler said. The No. 1 machine, which started up in 1975, has been operating with analog controls that are now obsolete, he noted. The new system will provide an “information highway” running throughout the plant. Workers are already conditioned to using computers at Virginia Fibre. A mainframe is linked to terminals located throughout the plant. Much of the paperwork—operator logs, purchase requisitions, inventory control, work orders—can be entered via the terminals.

Incentives reward workforce

Virginia Fibre is a non-union plant employing about 302 people. The plant is set up to operate with a lean staff of skilled professionals who are self-motivated and possess a strong work ethic, Chandler said. Except for a pulp and power superintendent on each shift, the workers operate with minimal supervision.

The mill uses an incentive program to further encourage, and reward, good work. "It's based on what

charity. AmeriCares, a worldwide relief organization started in 1982 by Virginia Fibre founder Robert C. Macauley, receives 90% of that money.

In its first 10 years, AmeriCares provided roughly US\$ 500 million in food, supplies, and medicine to disaster victims in 60 or more countries. "Our work is based on need. The goal is



.. **A** bale is fed into the pulper.

people can control and impact," Chandler said. Each month employees receive an 18% bonus if they reach the tonnage budgeted for production. An additional 1% is distributed for every 15 tons produced beyond that monthly goal.

Obviously, the plant needs to be very efficient in order to continue paying that kind of bonus, Chandler noted. The company also strives to keep all its employees well-informed of how the business is doing, he added.

Profits aid needy

Along with the plant workers, others outside the company have benefited from Virginia Fibre's success. Every year since 1988, the company has given 10% of its pretax profits to



.. **W**ire and plastic rejects
.....



.. **A** ragger removes wire.
.....

simple: save lives irrespective of race, creed, color or national origin—and not waste a hell of a lot of time or money doing it," Macauley is quoted as saying.

Several Virginia Fibre employees have volunteered to go on AmeriCares airlifts, including Chandler, who went to Nicaragua in 1990 to transport medical supplies. ■

Meadows is editor of Tappi Journal.