

FINCH, PRUYN: A SMALL MILL WITH A LONG TRADITION

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A MINOR PLAYER COMPETES BY FOCUSING ON CUSTOMER SERVICE AND PRODUCT QUALITY.

IN 1865, THE FINCH BROTHERS, DANIEL AND JEREMIAH, along with their partner Samuel Pruyn, purchased an old sawmill located on the Hudson River in Glens Falls, NY. At that time, their operations included a grist mill and grain elevator, a black marble quarry and finishing plant, a limestone quarry and lime kilns, and canal boats for transportation in a feeder canal. Thirty-nine years later, in 1904, the company was incorporated as Finch, Pruyn & Company and turned from its earlier operations to papermaking with the construction of a groundwood mill and two newsprint machines.

Today, the company is still family-owned by descendants of Samuel Pruyn, and it now operates four paper machines producing high-quality uncoated free-sheet printing grades. These machines are supported by an ammonia-based sulfite mill, an ECF (elemental chlorine free) bleach plant, a chemical recovery plant, a mill-owned and operated PCC (precipitated calcium carbonate) plant, as well as finishing, warehousing, and shipping facilities. Power generation includes two recovery boilers, five oil/gas-fired power boilers, a wood waste boiler, a turbine generator (T/G), and five hydro T/Gs. Waste treatment includes an activated-sludge system with aerated lagoons and dewatering of solid waste for transport to a regulated landfill site.

PULPING

The pulp mill produces 380 tons/day (short tons per day) of sulfite pulp made from a combination of both hardwoods and softwoods. Finch, Pruyn owns some 166,000 acres of Adirondack woodlands, and the company recently received third-party certification that its forestry practices

comply with all aspects of AFPA's (American Forest and Paper Association) Sustainable Forestry Initiative program. Nevertheless, most of their current wood needs come from outside sources, and their remaining pulp needs are met with purchased softwood kraft and, to a lesser extent, purchased deinked pulp and hardwood kraft.

The mix of hardwood and softwood chips is cooked in a Kamyr continuous digester. The unit, which was placed into operation in 1969, remains one of the industry's very few continuous sulfite digesters.

Following diffusion washing in a separate vessel, the pulp is further washed on a three-stage vacuum drum washing line and is then sent to a four-stage cleaning system. From there, the pulp is bleached in an ECF sequence (D(EP)D) to a brightness of 88. The mill began phasing out elemental chlorine in 1988 and eliminated it entirely by 1997. Removal of chlorine from the bleaching process required the mill to double the production of its chlorine dioxide plant (R8 process) to 16 tons/day. The capital cost for the move to ECF bleaching was US\$ 11 million. "Bleaching costs increased, but the resulting pulp shows a slightly improved strength for comparable brightnesses," reports Ray Barrow, manufacturing vice-president.

PAPERMAKING

Approximately half of Finch, Pruyn's papermaking tonnage is produced on their No. 4 paper machine, which typically runs at 2200 ft/min (670 m/min) with a 175-in. (4.45 m) trim. Machines 1, 2, and 3 run at considerably slower speeds and have narrower trims. Machine 4 underwent a major dry-end rebuild in the early 1990s,



An aerial view of the Finch, Pruyn mill in Glen Falls, NY, showing the administrative building and paper mill in the foreground and the pulp mill at the top left



The control room for the No. 4 paper machine

when it received a new sectional electric drive (Cullen-Bradley) along with a new size press, reel, and rewinder (Valmet).

The grades range from 40-lb text to 130-lb double-thick cover. At one time, much of Finch, Pruyn's production included various color grades, including Monopoly game money, but today the Bright White, Natural White, and Cream colors have replaced all other colors. The current emphasis is on production of commercial printing grades—annual reports, advertisements and associated envelopes, and direct mail—and less on book and copy papers. In the last two years, the mill has also made a thrust into premium printing grades with higher brightness and improved opacity.

The paper mill owns and operates an on-site PCC (precipitated calcium carbonate) plant that has been in service since 1984. This is a remarkable situation, since the vast majority of mills using PCC do so with an “over the fence” arrangement with an outside vendor. Finch, Pruyn's president and CEO, Dick Carota, notes that this has been a significant factor in their competitiveness, both from a cost and quality standpoint.

CUSTOMER SERVICE

The mill ships its products in roll, cut-size, and pallet (folio) form. Almost all shipping is by truck. A combination of favorable location and extensive warehousing of finished product (over 400 of their 450 grades are in inventory) allows customers in the Northeast to receive next-day delivery on orders placed by 5 p.m.

The mill's Customer Service Department includes order entry, warehousing, shipping, and inventory control. In addition, they recently installed a millwide tracking system supplied by Honeywell. As soon as a roll is weighed or a pallet is stretch-wrapped for stocking, it is available for sale. Conversely, should product be damaged in handling, it is immediately removed from inventory.

One practice continues unchanged to this day, and that is the personal involvement of Dick Carota. Any ser-



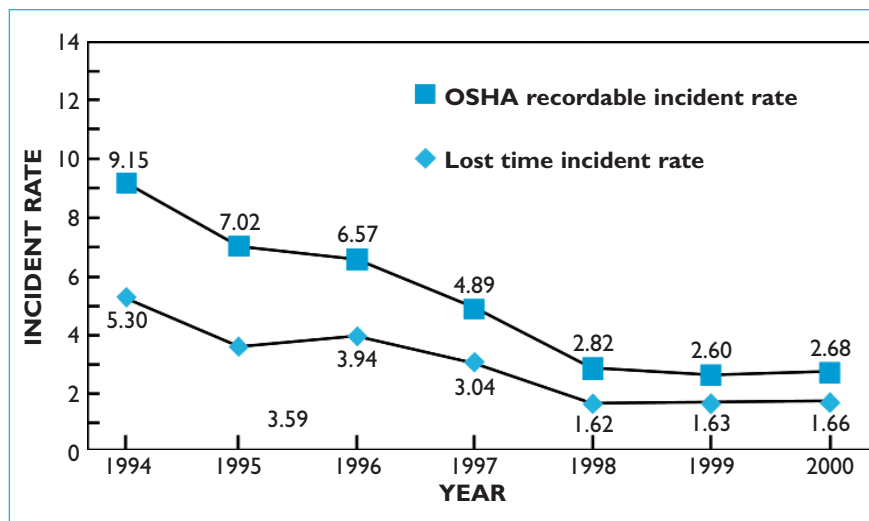
Max Reichen, the company's occupational health and training manager

vice failure — be it a missed shipping date, product damage, or printing room problem — is reported to the CEO. In Carota's view, this commitment to service is what allows Finch, Pruyn to “compete with the big boys.” While other companies are looking to the Internet as a tool to increase sales, Finch, Pruyn remains dedicated to the traditional approach, where customers deal with real people who know the business. Customer representatives undergo an extensive six-month training regimen before they can talk directly to a customer. “We want the customer to feel that it is very easy to place an order and to have all aspects of that order fulfilled,” says Bill Kaecheler, customer service manager.

UTILITIES AND WASTE TREATMENT

During the winter months, the mill is approximately 95% electrically self sufficient, but this figure drops down to about 80% in the summer. Steam is generated by two recovery boilers, five gas/oil-fired power boilers, and one wood waste boiler. Electrical power is generated by one steam turbine generator (T/G) and five hydro T/Gs. The mill expects to become 100% self-sufficient within the next few years with the installation of another steam T/G.

Effluent is in the range of 18 to 19 MGD (millions of gallons per day) or 2839 to 3000 cubic meters/second.



1. Safety performance

The acidic effluent is first neutralized and sent to three primary clarifiers operating in parallel. Overflow from these clarifiers is then sent to an 11-million-gallon aeration basin. Overflow from this basin is clarified in three secondary clarifiers, again in parallel, and the water is then returned to the river. Underflow from the primary and secondary clarifiers is thickened in a recently installed belt press. The thickened sludge is sent to a landfill site jointly operated with Irving Tissue at nearby Fort Edward, NY. The mill is also working closely with a commercial composter to identify potential alternatives to sludge disposal.

The effluent is well below the mill's permitted values for suspended solids (34,000 lb/day) and BOD (23,000 lb/day). The EPA is in the process of setting AOX (adsorbable organic halide) values for ammonia-based sulfite mills, and data from the Finch, Pruyn mill will help in establishing this number. Dioxin levels are nondetectable.



Phil Arthur, left, environmental control manager, and Ray Barrows, vice president of manufacturing and plant manager

On the air permit side, the mill expects to receive its Title 5 permit during the Summer of 2001. After that, the mill will have one year to demonstrate that it is in compliance. The mill's environmental manager, Phil Arthur, believes that the existing scrubbers and mist eliminators will satisfy the limits imposed by the Title 5 permit.

Finch, Pruyn is proud of its environmental accomplishments. Over the last 30 years, the mill has invested US\$ 111 million on environmental projects. The payoff has been a 99% compliance rate with permit limits since 1991.

SAFETY

Safety at Finch, Pruyn is employee based. "Safety is a line function," according to Max Reichen, occupational health & training manager. "It is the responsibility of the employee and his/her department to practice safe procedures." As such, there are seven departmental safety committees made up of both supervisors and hourly employees. In addition, there is a safety steering committee, which includes the vice-president of manufacturing, the safety director, Reichen, and union representatives. This group oversees the activities of the seven departmental safety committees.

Because of the involvement at all levels, safety issues and ideas are given high priority and profile. Reichen also feels that training is a very important factor. All employees receive at least eight hours of standardized training each year. "It is not an easy task to pull hundreds of employees from their jobs for eight-hour training sessions, but with the total support from upper management, we get it done every year," says Reichen. New employees also receive this training and, in addition, are required to observe others performing their job for two to three days before touching any equipment. In addition, there is periodic specialized training, e.g., for the HAZMAT (hazardous materials) team.

Reporting practices are also now more detailed, which facilitates better analysis in determining the root cause of injuries. Such analysis has led to the adoption of ergonomically sound practices designed to minimize back injuries.

It is company policy not to make use of rewards for achieving a certain number of accident-free working hours. Their philosophy is that safety is part of the job, and not something extra. Besides, it has been shown that such programs result in only a temporary improvement, and that once such programs are dropped, workers become lax and safety suffers accordingly.

The following graph shows how Finch, Pruyn's safety record has consistently improved over recent years.

Finch, Pruyn's safety performance is consistently in the upper quartile for large integrated mills. One of Finch, Pruyn's goals is to achieve membership in OSHA's Voluntary Protection Program. This is an exclusive group, as less than 1% of all manufacturing facilities are eligible. But the safety director, Reichen, notes that "this is a very worthwhile and achievable goal for us."



The Finch, Pruyn administrative building was built using local limestone in 1910

FINAL WORD

Policy begins at the top, and this is no exception at Finch, Pruyn. CEO Dick Carota sets the tone with a simple creed: "Everyone is responsible for paper quality; everyone is responsible for safety; and everyone is responsible for environmental protection." The ethic of personal responsibility is evident to anyone who visits the mill. They will see well-maintained, tidy operating areas staffed by employees who are proud to say they work at Finch, Pruyn. **TJ**

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AN INTERVIEW WITH DICK CAROTA — FINCH, PRUYN CEO

Dick Carota is only the fifth CEO in Finch, Pruyn's history and the first who is not a family member. He is a "local lad," having attended Hudson Falls public schools. After attending the University of Miami at Coral Gables, he joined Finch, Pruyn as an hourly employee in 1956. Within five years, he was managing the Customer Service Department. From there and under the watchful eye of Lyman Beeman, his predecessor, he was promoted to positions of increasing responsibility, becoming vice-president and plant manager in 1974, executive vice-president in 1980, president and director in 1982, and CEO in 1985. In his earlier years he also was an officer in the International Brotherhood of Pulp, Sulphite and Paper Mill Workers. In 1993 he was chosen as PIMA's Executive of the Year.

TAPPI JOURNAL: How would you characterize your management style?

CAROTA: Ever since playing football in high school, I knew the importance of everyone working together, as a team. It was a thrill to me, on successful plays, to see how much yardage we could gain when everyone knew what they were supposed to do, and did it. I still very much believe in the benefits of team play. Every day at 11:00 o'clock, I meet with my team—my officers and division managers—and we talk about what happened the day before, what's coming up for the next couple of days and weeks, and sometimes further out. It is my job to make sure that everyone knows what has to be accomplished



Richard J. Carota, chairman, president and CEO of Finch, Pruyn & Co., Inc., with a painting recognizing the company's support of the Glen Falls Hospital.

and what each department is doing to accomplish our plan.

TAPPI JOURNAL: What would be your advice to someone entering the paper industry today?

CAROTA: Work in every department; find out what you like to do best. And at some time, work every shift, especially the night shifts. You have to be more self-sufficient on those shifts, so you learn more about what works and how to handle the various crisis situations.

TAPPI JOURNAL: *Who influenced you? Who was your mentor as you rose through the ranks?*

CAROTA: I'd have to say Lyman Beeman, my predecessor. He was definitely a hands-on chairman. In the 1970s he would visit the mill and my scheduling department on a daily basis. He liked the way I had combined customer service with scheduling, so I guess he thought I had some administrative skills. He kept moving me along, from customer service to papermaking and then on to the pulp mill. The transfer to the pulp mill came when we were going from batch digesters to continuous cooking. We were only one of two sulfite mills with a Kamyr digester—the other one was in Germany—and we were having a helluva time keeping it going. I was working 14 to 16 hours a day, and finally we leveled it out. There was a very narrow range of operating conditions that you had to maintain. In those days, every shift tended to have its own way of running things. To make sure that every shift would follow these tight operating conditions, I had the foremen and superintendent come in a half hour early to meet with the superintendent going off duty and review how things were running. I attended every one of those shift-change meetings—7:30 am, 3:30 pm, and 11:30 pm—for a year. During this period, Lyman was very much involved and aware of the progress we were making.

TAPPI JOURNAL: *How does a small player like Finch, Pruyn remain competitive in today's market?*

CAROTA: First off, customer service. We're in a "good spot on the road." We can provide next-day shipping to New York City, Boston, and Philadelphia. Call us by 5 p.m. and it's on your dock the next day. And we've added two distribution facilities, near Atlanta and Chicago, to better serve other parts of the country. Also, we're a single-mill company. When a customer calls in for a rush request, we don't have to check with other mills. We can, especially now with the new millwide tracking system, quickly determine what it will take to meet his needs. Secondly, superior quality. Our sulfite pulp and purchased-kraft combination gives great formation, and our PCC plant helps give us fantastic opacity. Finally, costs: we've got to keep improving in this area. Running our own PCC plant and working to increase the use of PCC has been a major factor in increasing our margins. But last year, our margins slipped, with higher costs for fuel, purchased pulp, and wood.

TAPPI JOURNAL: *How much of your wood requirements are sourced from your woodlands?*

CAROTA: Even though we own 166,000 acres in the Adirondacks, we buy most of our wood. Incidentally, we practice AFPA's (American Forest and Paper Association) Sustainable Forest Initiative guidelines and have successfully achieved third-party certification. Because of responsive and sustainable forest management like ours, there is more forestland today than 50 years ago.

TAPPI JOURNAL: *What are the two or three most important challenges facing the paper industry today?*

CAROTA: I see three challenges of particular importance. First, we have to continue to make value-added products that meet our customers' quality and delivery demands while operating at the least possible cost. Second, the paper industry remains very traditional in its ways. We need to do better at redesigning jobs so that we can operate more efficiently, make decisions faster, and deliver products to our customers faster. Finally, paper companies have to get back to providing a decent return to their owners. There's simply too much capacity out there. Finch, Pruyn is a little guy. We don't make enough paper to impact the supply situation, but others do. International Paper is the first large company to do something about this. They say they're going to take a million tons out of production. That's a good start, and I'm sure we are going to see more of this.

TAPPI JOURNAL: *What accomplishments are you the most proud of?*

CAROTA: I'm very proud of what the Finch, Pruyn employees—both management and hourly—have accomplished. We make a quality product from renewable resources. We're an asset to the community, providing over 800 well-paying jobs. And we regularly support community events and situations that benefit our employees, like the expansion of our local Glens Falls Hospital. When I became president in 1982, we had been in business for 117 years. As of June 21, 2001, we will have been in business 136 years. In today's world of dot com today and dot gone tomorrow, that's quite an accomplishment in itself. **TJ**