

PAPER TIGER

WISCONSIN'S PAPER INDUSTRY IS MANAGING TO COMPETE IN A TOUGH ENVIRONMENT, BUT NOT EVERYONE WINS. BY JOHN HILL

Paper mills in this state produce 5.3 million tons of paper and 1.1 million tons of paperboard each year, making Wisconsin America's No. 1 paper-producing state, a position it's held for more than 50 years. "And we will be as far as the eye can see," says Jeff Landin, the executive director of the Wisconsin Paper Council.

But leaders in the paper industry are quick to point out they operate in a challenging environment of national and international competition and that companies are having to work harder and smarter to compete. "It's a different world than it was 50 years ago or even five years ago," Landin said.

Tom Danz, president of George Whiting Paper Co. in Menasha, and the president of the council, said that while the industry is healthy, a number of businesses have had to retrench to solidify their positions for the future.

IMPORTANT TO THE ECONOMY

A strong paper industry is vital to Wisconsin because its 40,000 employees at its 1,900 mills hold one of every 12 manufacturing jobs in this state. Paper companies ship \$12.4 billion in products each year and paper and forest products companies are the largest employers in 28 counties and are among the top three employers in 14 others. They pay more than \$2.55 billion annually to their workforces, and paper workers enjoy wages 24% above the average for manufacturing jobs in the state. Moreover, state paper companies supply Wisconsin's \$7.4 billion printing industry.

From 2001 to 2005, Wisconsin papermakers increased their exports by 42% to \$773 million annually, according to Dennis Winters, chief economist of the state Department of Workforce Development. "It shows how well they're competing globally," he said.

But the industry faces major challenges. China is in the process of adding enough papermaking capacity to equal 40% of the total sold in the American market. Mills in Asia and South America have the obvious advantages of much lower labor costs and less stringent environmental regulation. And new paper machines being installed by overseas

producers have much greater capacity than older equipment in Wisconsin.

Wisconsin paper manufacturers also face escalating costs for energy, raw materials, transportation and healthcare insurance. They operate with the uncertainty and red tape of environmental regulations that effect the cost of doing business and the amount of capital investment in this state's industry. In the coming years there will be a growing shortage of process engineers and other technical workers brought on by the retirement of Baby Boomers.

Since paper mills consume more energy than any other manufacturers in the state, energy is a major concern, Landin said. A typical large mill may run up a \$1 million utility bill each month.

"Energy cost is huge, huge," Landin said. "Reliability was a problem in the past. The state has made significant strides in new generating and transmission capacity, but it's been costly. Now the cost of energy is the concern."

Kelly Wolff, vice president of manufacturing for Georgia-Pacific's Green Bay Operations, said his company faces increased costs to operate its boiler within new EPA air emission standards and the secondary cost of paying for energy from utilities that are retrofitting for the new requirements.

Thomas Howatt, president of Wausau Paper Co., said, "Energy cost is one of the top four costs for paper companies. The biggest increases have come in the mills that get energy from natural gas-fired sources."

One way in which producers are dealing with energy problems is to make significant investment in generating their own electricity and taking themselves off the grid. Many mills have boilers and are burning biomass, either liquor from the pulping process or bark from debarking pulpwood.

SOME ARE PRODUCING ENERGY

Some mills are even calling themselves fiber and energy plants and looking to produce ethanol and denser fuels from wood pulp, said Dr. Gerry Ring, chairman of the Paper Science Department at the University of Wisconsin—Stevens Point. "Making cellu-

losic ethanol or other biofuels from wood pulp is far cheaper than starting from corn."

Yet, while biofuels are an opportunity for paper companies, they also could present a challenge, Landin said. That's because cellulose ethanol development could increase the competition and cost for the raw material for making paper.

Several other factors are increasing the cost and availability of raw materials. Ron Thiry, vice president of manufacturing of SCA Tissue North America, a division of SCA of Stockholm, Sweden, said for tissue makers, "there is cost pressure for waste paper from global competition. It's being exported out of this country to China and Indonesia." That's a particular concern for SCA Tissue, which uses 100% recycled fiber. Howatt cited the closing of some Canadian pulp mills as a reason for increased cost of wood pulp.

To transport pulpwood to mills and finished products to customers many papermakers rely on rail transportation, Landin said. "The rates are up dramatically and the service, because of consolidation, is being cut back," he said. Transportation costs also are rising due to surcharges on trucking shipments resulting from escalating prices for gas, Danz pointed out.

Because of its impact on the environment, the paper industry is highly regulated. Wisconsin producers meet or exceed all regulations and have made huge strides in environmental cleanup since the 1960s and '70s. "No industry in the state has done more," Landin said.

Howatt added, "You face environmental standards regardless of where you operate. But you need predictability, certainty and efficiency of moving through the [regulatory] process." While the state has improved in its regulatory climate, the business leaders talked to for this article agreed that more needs to be done. "Gov. Doyle is very positive in recognizing the importance of a solid paper industry," Wolff said. "He understands the issue and is looking to improve. It now takes 90 to 120 days to get a permit. I believe that's reasonable." But it's not as efficient as in other states.

"It's not a level playing field," said Thiry. "The process in Wisconsin is quite iterative and not as efficient as in other states."

The regulatory climate is important because Wisconsin mills are in competition with other states and countries for investment in new capital equipment. An increased number of Wisconsin paper mills are owned by publicly held corporations and private equity firms in other states and nations. If the regulatory climate is more difficult to deal with here, they invest in new equipment and facilities elsewhere.

FEWER JOBS IN THE INDUSTRY; A LOOMING LABOR SHORTAGE

Employment in the paper industry has dropped about 20% since 1990 as a result of automation and consolidation. But labor could be a problem in three to five years because of the high average age of the industry's workforce, Landin said.

This is particularly true for process engineers. "The demand for process engineers has never gone away," Ring said. His department at UWSP produces about five graduates a year, and they would like to build the number to 15 graduates annually. Process engineers have "100% employment in summer, part-time and full-time jobs," he said. They have enjoyed \$1,000 a year salary increases for many years and graduates of his program start at \$60,000 a year.

Wisconsin papermakers have been successful in the globalized market through advances in productivity, finding niche markets and developing new products.

Danz's George Whiting Paper Co. of Menasha, a family-owned company that's been in the state since 1882, has remained healthy through specializing in mat board, fine decorative papers especially colored grades and paper for scrapbooking. "It calls for R&D to find these niche markets," he emphasized. "One-third of our products were not made three years ago."

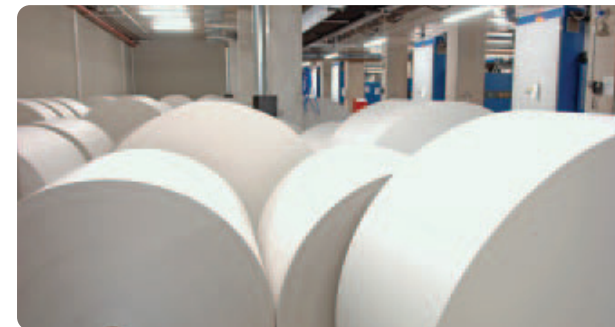
Howatt's Wausau Paper Co. follows a similar strategy. "We have a goal of year in and year out producing 25% of overall revenue from products developed in the last three

years," he said. "We've been quite consistent in achieving that goal. We've achieved it for the last six years."

INNOVATION NECESSARY

New product innovation is important for tissue makers, too, Thiry said. His company, which produces tissue products such as napkins, bath and facial tissues and specialty wipes for commercial facilities and other away-from-home venues, has developed improved electronic and hands-free dispenser systems and innovative dispensers that allow customers to use less paper. Wolff said Georgia-Pacific also developed hands-free dispensers for tissue products and coreless tissue that eliminates the cardboard cores of commercial tissue rolls.

Paper manufacturers also compete



through environmental innovations that reduce energy and production costs and provide more environmentally friendly products.

"A driver is the renewed awareness of environmental needs," Thiry said. "Al Gore and his work on global warming have made people more aware of their footprint on the environment."

Thiry's company is the first American sanitary paper manufacturer to receive the EcoLogo certification of the international Environmental Choice program. Wausau Paper prides itself on the wide range of its Green Seal environmentally certified products. The George Whiting Co. specializes in custom recycled papers and has been pro-

ducing 100% recycled grades since 1980.

Asked about future trends in the paper industry, Ring pointed to not only the burgeoning role of biofuels from wood products, but also the increased use of nanotechnology processes in developing new products. Nanotechnology is the manipulation of microscopic materials (100 nanometers or less), and Ring said his department will be doing significant research in this field within five years.

A release from the Forest Service's Forest Products Laboratory in Madison says that nanotechnology "is expected to drive global economic growth in this century." While this country has committed \$1 billion annually to nanotechnology R&D, too little has gone for applying nanotechnology to forest products. Among the numerous possible applications

are "intelligent" paper-based products able to measure forces, moisture, and temperature to detect decay and enhanced processes for converting biomass to fuels and energy.

For the present, Ring said, people continue to use paper despite the claims that the Computer Age would produce a "paper-less" society. Instead, businesses and consumers now buy reams of paper for their computer printers.

The visionary and active leadership of Wisconsin paper executives is resulting in profitable business in a challenging environment through innovative products, development of niche markets and advances in environmentally friendly processes and products. □