

SP Newsprint Named World Champion In Newsprint Productivity and Efficiency

U.S. based company rated No. 1 worldwide for 2002 accomplishments on paper machines at Dublin, Georgia, and Newberg, Oregon, mills —setting new records in 2003.

— *By KEN PATRICK, EDITORIAL DIRECTOR*

SP Newsprint mills at Dublin, Ga., and Newberg, Ore., have been recognized as “world champions” in newsprint productivity and efficiency for the year 2002. The No. 2 paper machine at Dublin, a Metso (Valmet) SpeedFormer HS that was rebuilt to include a shoe press in 1998, was ranked first in the world in overall newsprint productivity by producing at an annual rate of 1,069.1 kg/cm (of width). The No. 5 newsprint machine at Newberg was ranked first in the world in operating efficiency with a rate of 94.0%.

No. 1 machine at Dublin, a vintage Beloit Bel Baie II machine that started up in 1979, earned 16th place in productivity and 4th place in operating efficiency for the year. The Pulp and Paper Products Council in Montreal conducted the 2002 study comparing performances of 123 newsprint machines in the U.S., Canada, Europe, Africa, and Asia.

To achieve the record-setting level of productivity in 2002, No. 2 machine at Dublin sustained an overall 90.9% operating performance, with an average speed of 5,486 fpm. The machine, which started up in 1989, achieved a single-day speed during 2002 of 5,780 fpm. So far this year, Jack Carter, mill manager says the No. 2 machine is operating at an even higher level of productivity, attaining a speed of 5,800 fpm earlier this year, and sustaining average speeds of around 5,650 fpm since



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then, with improved efficiency at 91.7%.

To explore the world-class accomplishments at Dublin in more detail, PaperAge recently visited the mill for a discussion with Carter. His insights and perspectives on how the Dublin mill has progressively improved its productivity since startup almost a quarter century ago, and the operating strategies and management approaches behind the mill's recent production records, are summarized below.

Key Factors

Carter points to three key factors behind the Dublin mill's continuing improvements in productivity. First is ownership support. SP Newsprint Co., headquartered in Atlanta, has the capacity to produce 1.1 million tpy of newsprint at its two mills. It is an equal partnership of three newspaper publishers—Cox Enterprises, Knight Ridder, and Media General. Collectively, some 40% of the mill's newsprint production is captive to these three partners.

“Our owners depend on us to produce a high quality raw material for their end use, to be competitive in the

current worldwide newsprint markets, and to make a profit. In that regard, we are not only papermakers, but papermakers of one specific grade," Carter explains. "Our focus is very sharp and clearly defined. We're not distracted by having to produce improved newsprint grades, or supercalendered, or LWC papers, etc. We're in the newsprint business only. That clear focus is a strong advantage for us."

Although 40% of the Dublin mill's production is captive to its owners, "we have to be a viable enterprise in every regard," Carter says. "If we were to just sit here and do nothing and let our costs go up and our production slide, we wouldn't be viable very long. Our owners insist on a high quality, cost-competitive product. We're in business to make as much money as we can for our owners, just like any other mill."



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The second key factor is technology, Carter says. "The kind of world-class results we have achieved at this mill requires top level technology, which our owners have supported us in obtaining over the years. We might not have the best technology in all areas of the mill, but we do have some of the best in most areas of the mill."

In today's paper industry, Carter believes, there is no way around the fact that if a mill doesn't have the technology it needs, it can't be the best in the world at what it's doing. "In some cases, technology is very expensive...but not in all cases," he adds. "Especially today, more than ever, we in the paper industry have to be astute investors of the precious resources we have. The tools we buy and install have to work...and work well."

Carter points out that "we're constantly searching for ways to make our equipment and systems work better than their inventors and manufacturers ever dreamed they could. We have two paper machines that, design-wise, are clearly doing some things they shouldn't be able to do."

The third key factor is "our folks," Carter notes. "From the front gate to the back gate, everyone here feels that we're in this together. If we're having problems on the



SPN Newsprint's No. 2 PM at Dublin, Ga., was recognized as the most productive newsprint machine in the world in 2002, while the company's No. 5 PM at Newberg, Ore., was rated first in the world in operating efficiency. No. 1 PM at the Dublin mill (background) also received awards for productivity and efficiency accomplishments.

paper machines, everyone shows concern and tries to help in any way possible. There is a lot of individual ownership and commitment here. Our employees are always willing to give us discretionary effort without being asked or even told what needs to be done."

"These are tough times for the paper industry," Carter emphasizes. "Our folks want to know how we're doing and if we're going to survive. They show concern for each other and for the company. In that regard, we're no different than any other mill. But neither are we complacent. We're going to survive by always striving to get better. The records we set last year and are continuing to improve on this year have happened despite not having much investment recently. We've had to work harder and smarter and learn new ways to enhance the capability of our processes. I'm sure this is the same for everyone else in our industry today."

Carter feels that it is his responsibility to create challenge at the mill. "We have to set realistic objectives that are right there in front of us, so that if we stretch just a little, we can reach out and grab them. If we were to set lofty objectives that look good on paper, impress our board of directors, etc., but are so unrealistic that we can't possibly attain them, an attitude of no-hope might develop at the mill. It's very important that when we say we're going to do something, we're really able to do it."

"I feel like we have a giant bowling ball rolling downhill in the direction of continuous improvement," Carter continues. "If you can't help it along, then get out of the way. The momentum is feeding on itself, and that makes it all sort of fun."

Market Perspectives

In a larger sense, Carter doesn't see his mill's long term marketplace competitors being only the Bowaters and Abitibi-Consolidateds of North America. "I'm an American and I want to see the American papermaker survive," he says. "I feel like our real competitors include the producers in Scandinavia, Europe, and Asia, whose products to some extent are already in our customers' press rooms."

"I have friends at many North American companies and it breaks my heart to see them shutting down and out of work, and worrying if their mill's going to survive," he says. "The economics for our overseas competitors apparently are already adequate to overcome the high shipping costs to North American markets. As they continue improving their processes, and if we don't, these economics are only going to get better in their favor. So we have to do everything we can to improve."

Process Diligence

Process-wise, Carter says that consistency of fiber supply has been a major factor in the productivity accomplishments at Dublin. SP Newsprint has a very large recycling division that is highly focused on the quality of fiber it supplies to the two mills.

"The quality of a mill's fiber supply starts at the truck dump, regardless of what the fiber might be—chips, logs, ONP, OMG, etc. It has to be managed to provide a consistent flow of quality to the process." Dublin uses ONP in its 100% recycling process, which has been upgraded and expanded over the years, but still basically employs vintage washing deinking technologies.

On a normal day, the mill produces about 1,800 tpd of finished product, which typically requires about 1,950 tons of finished deinked pulp, Carter explains. To do that, some 2,400 tons of highly-sorted, quality ONP is fed to the mill's deinking lines daily.

Process control also plays a major role in the mill's accomplishments. "We have a lot of in-house control engineering and mechanic talent at Dublin, and are constantly searching for ways to enhance our control schemes and make the operations more 'fool-proof,'" Carter says. "Our attitude is, whenever we encounter a problem, we kill it. We don't put a band-aid on it to keep running for a month, or six months, or even a year. And a lot of the problems we kill with improvements to controls."



Jack Carter, mill manager (right), congratulates Rodney Allison, Paper Department Manager, for the world-record productivity award presented to the mill by Metso Paper.

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For example, he says that if bleaching chemistry gets out of balance, a new control scheme is devised to check that system's control scheme—so that it never goes out of balance again. All process bottlenecks that crop up are approached the same way, from the position of "killing" any and all problems as they occur.

Problems such as paper machine breaks are taken very seriously. "For the speeds we run, we have very low break frequencies. A recent benchmarking study done by one of the industry's major equipment suppliers showed both of our machines had the lowest break frequency, by far, of any similar machines studied worldwide."

"Everything we do at this mill is focused toward benefiting the papermaking operation. We have a lot of very capable, highly experienced people dedicated to the paper machine operations. In fact we're stacked very



No. 2 PM at Dublin is a Metso (Valmet) SpeedFormer HS that was rebuilt in 1998 to include a shoe press, one of the first such newsprint applications. It has operated at speeds as high as 5,800 fpm so far this year and is well along the road to breaking the world records it set last year.

heavily in favor of the paper mill so that we can give constant attention to details, 24/7,” Carter points out, adding that there is a crew leader for each machine so that if both machines develop problems at the same time, there’s always someone there to handle them.

“We push the envelope here,” he adds, “which means that sometimes we’re going to have problems. When one crops up, we find out what it is, backup and fix it, then go back up again. We might go up 10 fpm at a time and stay there for a while and see what problems there are. If there are no problems, we go up some more.”

Technology Partnerships

Carter says the mill strives to foster excellent relationships with our vendors, which helps us stay up with the latest technologies and innovations. “Metso, for example, has very good technology and significant R&D capabilities. We participate with them on various projects, and plan to develop this even more.”

“Our competitors in Europe and Scandinavia have enjoyed a very supportive relationship with technology suppliers for many years. Since North American paper

companies do very little R&D these days, we need to build up our technology development and testing relationships with major suppliers.”

“Not many paper machines, for example, are running at 5,800 fpm with a shoe press mashing the sheet as we have on PM 2 here. We have worked very closely with our primary clothing supplier, AstenJohnson, to develop a felt that will tolerate those conditions and perform the way we need it to.”

“Three years ago we weren’t sure how to run 5,000 fpm. Today, we’ve already run at 5,800 fpm, and will soon be sustaining this level of production. One day, who knows, we may be at 7,000 fpm, and that’s why we’re telling our vendors to make the equipment we buy today good for that speed. We’re buying rolls now, for instance, that are good for 7,000 fpm.”

“Last year, I’m happy to say that the mill was profitable. But if we had stayed where we were in 2000, we would not have been. Constantly striving for higher productivity, efficiency, and quality, together with the cost-centered culture at SP Newsprint have been the keys to our success over the years,” Carter concludes. ■