

1992 Finishing and Converting Conference

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The 1992 Finishing and Converting Division Conference and Trade Fair, held October 18-21 in Nashville, TN, drew 440 attendees from seven countries. Under the theme "quality with recyclability" the conference included an eight-session technical program, a common interest breakfast, the Superintendents' Roundtable, a Supplier Showcase, recycling workshop, and a trade fair of more than 30 exhibitors that featured a reception on Sunday evening.

Packaging Committee

The Packaging Committee recently concluded a committee assignment on roll labeling. For more information about the Committee's final report, contact Don Hildebrand, Lamb Grays Harbor Co., telephone: (206) 532-1000.

Opening session

Monday morning's opening general session included keynote speeches from W. Craig McClelland, president and COO of Union Camp Corp.; Jobe B. Morrison, president and general manager of Miami Paper Co.; and Gary Fenton, vice president and general manager of Repap Wisconsin, Inc.

McClelland provided a good picture of where the U.S. paper industry stands and appears to be headed. He described the global nature of the industry and claimed that the United States is well positioned to exploit its advantages on a global scale.

He claimed that industry is undergoing a major change in direction involving consolidations, changes in distribution of products, and changes in cost structure. All of these changes require good execution of proper strategies. Strategy alone is not enough; good people are vital.

Morrison discussed the effects of the environmental "challenge" on the industry. He claimed that almost every grade can be made with recycled fibers, providing our industry makes the effort, and said that the myths about recycled products need to be dispelled.

He cited the myth that recycled content yields lower-quality products, and noted that quality is not a grade problem but a lack of desire on the part of paper companies' managements to produce quality products from recycled material. Morrison contends that lack of knowledge and misuse of equipment are the real sources of the quality problem.

Repap Wisconsin, Inc., noted Fenton, has proven that high-quality, coated grades can be made with recycled materials, properly treated. His mill is now making a No. 3 coated grade on a base of 40% industrial recovered stock, 10% post-consumer waste, and 50% virgin fiber. Fenton claimed that products can be interchanged "transparently" with virgin grades of coated paper and board.

Technical sessions

The winding sessions were very strong again this year, as shown by the award for the conference's best paper going to "Rebuild of a paper machine winder" by Robert Worley of Bowater and Luigi Bagnato, an independent consultant.

The first session was largely dominated by the recycling theme. The theme was not only applied to paper fibers reuse but to machinery reuse. Mike Daul of Valmet explained the influence of deinked fiber material properties on winder operation.

The panel discussion on recycling winders, initiated by Chuck Bailey, emphasized the need for clearly understanding the deficiencies of a mill's current winder before planning a rebuild. Several industry experts discussed rebuild and reuse of winders in the paper mill.

Terry D. Gerhardt and John F. Staples of Sonoco Products Co., Robert G. Lucas of Beloit Corp., and Vincent Caccese of the University of Maine presented new technology for the design of cores to avoid resonance when unwinding onto high-speed printing presses. David Roisum of Finishing Technologies presented a paper on the effects of moisture on webs and rolls that addressed material properties, converting runnability, and storage. J. Keith Good of the Web Handling Research Center and J. David Pfeiffer of McGill University presented their most current work on winding models. Jan Gronewold of Black Clawson Co. concluded with a presentation on computer-aided winding that provides a capable control alternative to conventional benchboards and panels.

Two mills' efforts to use participative management and gain the benefit of worker knowledge and wisdom were discussed during the shipping, receiving, and warehousing and sheeting sessions. Appleton Paper's Appleton, WI, mill instituted the process in an ongoing operation, which was very difficult, but in the long-run, successful.

Union Camp Corp.'s Sumpter, SC, mill has operated in the participative mode since its startup. As of July 1, 1992, the plant has been running without supervisors. All operations are handled by the four teams that manufacture the sheeted products, 24 hours/day, seven days/week. Two team members effectively presented their experiences with the new management style.

Through its work teams, the paper industry is blazing a trail that many others can follow. It would be interesting to compare the paper industry's progress with work teams with the progress in other industries such as the microelectronics and auto industries.

Packaging

The packaging sessions offered several papers about the reuse and recyclability of various materials. Westvaco presented an interesting and thoroughly understandable paper about how and why the company gained ISO 9002 certification of its mills and plants.

An interesting panel discussion about the use of stretch-film wrapping of paper products followed. The insurance question is still evident as some mills that presently wrap their products in heavy kraft wrapper may have to modify the sprinkler systems of customers' warehouses if they switched to plastic wrap.

Packaging/sheeting

During the packaging/sheeting session, a very knowledgeable panel discussed "Waste Paper Recycling: What Are Your Options?" Moderator William Louisignau had his hands full as the panelists bounced the subject back and forth.

Rod Edwards of American Paper Institute offered worlds of facts and statistics. Edgar Miller of the Recycling Advisory Council was able to counter most of Edwards' assertions and so the debate flowed with Victor Gaylor of Georgia-Pacific and Howard Ingram of Paper Recycling International (Stone Container and Waste Management joint venture) getting in a few words at telling times.

This debate should gain a much wider audience, hopefully at the national TAPPI conference, as there were many ideas that were laid on the table for discussion. The long-range solutions to these problems are going to affect us all in our working lives as well as our daily living.

Calendering

During the first calendering session, Hans Bresser of Kleinfelters Paper Converting presented an informative paper about the challenges the industry faces to recycle paper and the calendering equipment that is effective on recycled grades. The audience was interested in the effect of recycled fiber on roll surface wear and wanted to know if skipping nips on supercalenders is effective on recycled grades.

Eric Bartram of Kusters Corp. presented a paper that defined why midmachine calendering greatly enhances print quality. Bartram provided an example of a midmachine installation and displayed data showing how moisture and temperature influence midmachine calendering and further enhance the finish of the sheet. Bartram fielded questions from the audience about moisture ranges and patent concerns.

J. David Pfeiffer, in a paper about shear stress and replication in calendering, clarified what it is that we are trying to accomplish

when finishing a sheet. He explained distortion, deformation, and flow during the calender operation and showed how replication is the key factor in determining surface finish of the web. Lively discussion from the attendees centered around the techniques used to explain how replication takes place.

The second calendering session included a presentation by Francis P. Vivier of B.F. Perkins, in which he highlighted the history, advances, and future of embossing fine papers. A large audience asked questions about the future use of adjustable crown rolls, on-line embossers, steam use, and wrap angles. Synthetic roll covers have a place in this application and in other areas as well.

Tom Lauterbach of Beloit Manhattan presented an update on synthetic roll composite covers. According to Lauterbach, synthetic covers are present on 20% of soft calender rolls. He explained the changes in raw materials, the increase in the number of suppliers, and the ranges of roll hardness as well as techniques being used to test roll fracture toughness.

Many questions arose about quality and uniformity testing, roll hardness, and the glass transition temperature test.

Terry Schuelke of Valmet presented a paper about calendering newsprint that contains deinked pulp. He explained the differences between deinked pulp and virgin furnishes and the advantages of soft versus hard nip. The newsprint industry is experiencing good results with the soft nip, Schuelke said. He answered questions from the audience that ranged from the location of the hard steel roll and relation to felt/wire side of the web to use of twin wire machines.

A panel comprising Howard Baxter of Mead Corp., Charles R. "Dick" Bosley of Westvaco Corp., Reggie Glidden of Champion International, Ron Holland of Eastern Fine Paper, Carl Diehl of P.H. Glatfelter, and John Fisher of Westvaco fielded a wide variety of audience questions.

During the session, Howard Baxter presented Dick Bosley with the "Supercalender Person of the Year" award. Bosley, operations supervisor of Westvaco Corp.'s calender rooms 8 and 9, has been in the paper industry for 17 years and a TAPPI member since 1985. He is active in the Division's Calendering and Winding Committees.

Common interest breakfast

Held on Tuesday morning, this new event gave attendees a chance to talk about challenges, problems, and solutions. Each table, dedicated to a specific topic—winding, slitting, calendering, packaging, to name a few—offered participants an opportunity to discuss issues that were pertinent to them. The meeting drew more than 30 people, and some were able to go home with ideas that could bring their companies substantial savings.

Superintendents' Roundtable

Most of the interest from this year's roundtable participants seemed to center around the use of ceramic slitter blades in winders and sheeters. It seemed to be agreed that use of these elements increased life of tops by 10 times and bottoms about two to three times. Increased slit edge quality was also mentioned by some attendees.

There seems to be a push from customers of coated paper mills to insist upon sale by the lineal foot (or ft²). This brings into

Conference Report

Erick Richter accepted the Best Technical Session Award from Technical Program Chairman **Sterling "Russ" Brown**.



question the loss of sale of cores, wrapper, headers, and glue that formerly figured into the century weight price of the product. A potential loss to the mills involved and the need to rework the entire computer system would result. (The paperboard industry has sold on a 1000 ft² basis for many years so the knowledge gained should apply to the fine and coated mills.)

One attendee pointed out that there is no completely accurate method for counting lineal footage at the machine winder: moisture changes, tension changes, slippage, and scrap calculation all can adversely affect the quality of this number. Some feel that calculation is as accurate as measurement.

Roundtable participants concurred that drug use and abuse problems have decreased over the years, but the potential problem of false positives has become an issue that will have to be addressed. It was pointed out that some young people today will have to undergo 20 or 30 drug screens in their lives and the chances of a test result being falsely positive are fairly high with the present drug testing technology.

Human relations personnel should make it a priority to have more accurate drug screens with 100% right as the goal. The need for quality in this area is higher than that needed for paper!

Several mill personnel shared their experiences about using barcode readers and contended that the barcode readers could read labels from up to 12 ft away. A new French "smart clamp" can read barcodes, apply just enough clamp pressure to keep the roll from slipping, and will not allow the lift to move while a roll is being guided into position.

One attendee stated that it is possible to read barcodes through plastic wrap if clear wrap is used and the label is placed under only one wrap of material. Still, wrinkles in the wrap can cause read problems.

Pressure from large metro areas is causing the packaging of folio sheets from cartons to skids because of the disposal problem with the carton material.

Mills are getting negative feedback about stretch wrapping of junior cartons causing a disposal problem. Gluing cartons onto the pallet is not a solution, and the use of colloidal silica for slip control is not enough.

Russ Brown awarded the Best Panel Discussion to "Common Sense Handling." Moderator **Frank R. Wilson** accepted the award.



Winder manufacturers stated that there is no theoretical limit to the speed attainable by winders. Experimental machines have been run at 20,000 ft/min. Speed is only limited by economics.

Supplier Showcase

The Supplier Showcase on Tuesday afternoon was one of the most heavily attended and well-received sessions of the conference. All of the suppliers stayed within the five-minute guideline, which was probably a minor miracle (effected by Moderator Bob Edwards!).

Awards Banquet

The Conference Awards Banquet on Wednesday evening brought Division members together to recognize those who contributed to the Division and the Association. After tabulating the conference attendees' session evaluations, the Division gave out three awards in recognition of outstanding work.

"Rebuild of a paper machine winder" was voted to be the Best Paper of the conference. It was coauthored by Robert W. Worley Jr. of Bowater Corp. and Luigi Bagnato, consultant.

Moderator Frank R. Wilson of Westvaco Corp. accepted the award for the Best Panel Discussion "Common sense handling," which was part of a shipping, receiving, and warehousing technical session. Panelists Lonnie E. Iris, David Reckes, and Judy Van Learhoven, all of Appleton Paper Inc., were recognized.

Session Chairman Erick Richter of Canadian Pacific Forest Products Ltd. accepted the award for the Best Technical Session for the Packaging/Sheeting Joint Session. Don Hildebrand of Lamb Grays Harbor Co., Jan Snellman of Bearings Inc., Eric Caulfield of Cascades Conversion Inc., Jukka Ponkamo of Valmet Paper Machinery, and Björn Hellgren of Bohus PMC and Dan Matics of Trancel, Inc. authored papers presented at that session.

Certificates of Appreciation went to Roger E. Schelk, Division chairman (1991–1992); Joseph P. Vosters, Calendering Committee chairman (1991–1992); Donald M. Hildebrand, Packaging Committee chairman (1990–1992); Dwayne M. Hinson, Shipping, Receiving, and Warehousing Committee Chairman (1991–1992); and G. Michael Johnson, Winding Committee chairman (1990–1992). ■

Recycling will remain a critical issue in the mid-1990s

William P. Moore

The pulp and paper industry is making great strides toward reaching its self-imposed industry goal of 40% recovery rate by 1995. In fact, it is conceivable that this goal will be exceeded by a comfortable margin. However, the industry will face other recycling issues related to that recovery goal.

Keeping a campaign promise

During their campaign, Bill Clinton and Al Gore promised to address stimulation of the end markets for recyclable materials. With Al Gore—a former member of the Environmental Protection Agency's Recycling Advisory Committee—as vice president, we have not seen the end of federal activity on recycling.

Although the paper industry fully expects to meet its recovery goal, paper will still be the largest contributor to the municipal solid-waste stream, and the overall tonnage of paper being disposed will not decrease dramatically. As the Resource Conservation and Recovery Act (RCRA) regulations enforcing the nonhazardous landfill portion of this legislation go into effect in 1993 (Subtitle D Standards), disposal capacity will be greatly reduced by the mid-1990s. With paper disposal rates not promising a significant decline and RCRA legislation offering fewer places to put that paper, the end markets could certainly use some stimulation from the new Administration.

Open-loop versus closed-loop

The controversy of closed-loop versus open-loop recycling is an emerging issue of which the industry must be aware. As an example, recycling office grades into printing and writing paper would be closed-loop, whereas these grades going into tissue would be considered open-loop recycling. Certain recycling advocates believe that anything other than closed-loop recycling is harmful to our environment.

Open-loop recycling is not practical, makes no economic sense, and has questionable environmental benefit. For example, without the demand for old newspapers (ONP) in boxboard, the markets for ONP would be much worse off than they actually are today. If open-loop recycling is legislated, it could lead to a great imbalance in our industry.

To address the open-loop versus closed-loop issue, the pulp and paper industry needs to help the public cut through the controversy and raise its awareness about recycling by presenting facts about each type of recycling. Solid-waste companies seemed to be in the limelight on recycling issues

in the late 1980s when the pulp and paper industry was truly the largest recycler in the United States. To raise public awareness, the industry needs to announce its successes so that people will take notice. Recycling is a social and marketing asset for the pulp and paper industry.

Dealing with mixed wastepaper

State and locally legislated goals ranging from 25% to 60% recovery will be very difficult to achieve on a grade-specific basis. Mixed wastepaper will provide an option that will help with recovery goals and offer reasonable collection costs.

Mills that currently use or expect to use OCC should consider RMWP as a potential source of furnish. Mill management should be poised on the crest of this wave. RMWP will be available in large amounts at low cost and could be collected through residential curbside pickup programs. RMWP, with its varying grades and contaminants, however, will require more sophisticated processing technology.

Magazine shortage

Success in newsprint recycling will lead to a requirement for larger amounts of old magazines to be used in flotation deinking systems. However, even when magazines are included in old news curbside recycling programs, the amount of material needed is not produced. The additional cost to collect and sort old magazines will lead to an increased financial burden on municipal programs. An effort will be made to pin the costs back on the producers of the materials either through the market value of the recovered paper or through taxation.

This is another excellent opportunity for the paper industry to mount a grassroots effort for a voluntary collection program for magazines. Every town that is in a mill's recovered paper supply area should be encouraged to implement a magazine collection program.

Finally, industry leaders need to begin a substantive dialogue on corporate and local levels with the environmental advocacy community. Although these environmental groups are well intentioned, they have limited knowledge of our industry and its issues. Their efforts can materially affect our industry for many years to come. ■

Moore is managing executive, Thompson Avant International, Atlanta, GA. Thompson Avant International provides management assistance services to the pulp and paper industry. This is the third in a series of articles discussing management concerns.