ENGINEEREDWOOD SPRING 2012 LOUGH





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More Optimistic	46%
Less Optimistic	18%
Same	36%

LOOKING AHEAD EWTA Member Business Outlook Survey

PAGE 16



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PAGE 30

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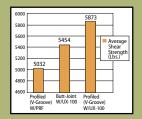




I-Joists

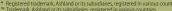
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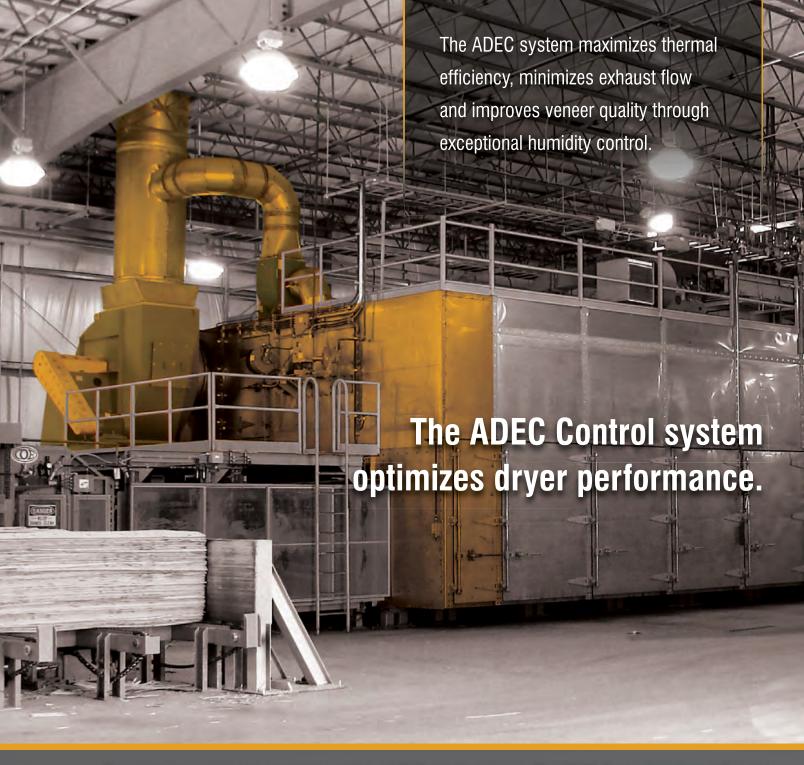






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ENGINEEREDWOOD Journal

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About the Cover:

Winners of the 2011 EWTA Supplier and Innovation of the Year Awards were honored at the APA annual meeting in New Orleans. For complete information, visit the EWTA website at www. engineeredwood.org.



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Departures

The industry lost two notable figures in Rick Massey and Fred Fields late last year. Both left their marks and both will be missed.

Rick died suddenly on Nov. 22 at his home in Langley, B.C. He was just 58. A longtime sales rep and marketing manager for Raute Corporation, Rick knew and was known by



just about everybody in the industry. It was difficult not to know him. His gregariousness, not to mention loquaciousness, were legendary.

Rick lived a fascinating life. He was born and raised in Australia and lived also in Finland and Canada. He held a degree in hotel management, earned in Australia, and another in sales and marketing from the University of British Columbia. He reportedly was a great cook. He was a world traveler in his capacity at Raute, and an intrepid adventurer in the universe of ideas, be they political, philosophical, social or

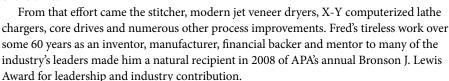
religious. He loved telling stories, and he loved a good laugh.

Rick also was an excellent writer, a talent he put to good use for several industry magazines, including Panel World, Wood-Based Panels International, and this one. In fact, he was to have had a bylined article in this issue of the Journal, and we looked forward to featuring his contributions well into the future. Alas, it was not to be.

Rick was a good friend to a great many, and the unexpected news of his death was truly shocking. The family has established a memorial fund to honor his memory with a tree or park bench. For more information, email family@rickmassey.ca.

Fred Fields, who died Dec. 13 in Palm Springs, Calif. at the age of 88, also was a remarkable man. Born in Indiana and raised on the family farm, Fred was destined to become an industry technology guru.

Fred joined Coe Manufacturing in 1947 in the company's engineering group. He advanced in short order to field and sales engineering, then to West Coast Manager, and then in 1962 to vice president. But he was only getting started. In 1976, he bought the company, became its president, and began an extensive research and development program in conjunction with some of the leading plywood manufacturers of the time.



Fred also was awarded the Gustav Carlson Medal for Process Innovation at the plywood industry's 100th anniversary celebration organized by APA in Portland, Ore. in 2005. In presenting that lifetime achievement award, then APA Chairman John Murphy aptly described Fred as "one of the world's undisputed leaders in mill machinery design and manufacturing."

Rick and Fred were each in their unique ways industry icons. We extend condolences to all who mourn their passing.

jack.merry@apawood.org

ANSI Approves Cross Laminated Timber Standard

A new standard for Cross Laminated Timber (CLT) was approved late last year by the American National Standards Institute (ANSI).

Cross laminated timber (CLT) is a prefabricated solid engineered wood panel made of at least three bonded layers of solid-sawn or structural composite lumber (SCL) that are laminated by gluing longitudinal and transverse layers with structural adhesives to form a solid rectangular-shaped plane timber intended for roof, floor, or wall applications.

The new standard, ANSI/APA PRG 320 Standard for Performance-Rated Cross-Laminated Timber, was developed by a binational (U.S. and Canadian) CLT Standard Committee organized by APA, an ANSI-accredited standards developer, with the support of FPInnovations in Canada. The standard includes seven

stress classes covering major wood species in North America. Efforts to gain U.S. and Canadian code recognition of the standard are under way.

CLT has been used in Europe for more than ten years, but just started getting attention in North America in the last two years as an alternative to concrete and steel in nonresidential construction. It is being manufactured by two APA members in Canada with two U.S. manufacturers to follow.

2011 Structural Wood Panel Production Repeats Previous Year Volume

U.S. and Canadian structural wood panel production totaled 26.07 billion square feet (3/8" basis) in 2011, nearly identical to the 26.2 billion feet produced the previous year, according to yearend data released by APA.

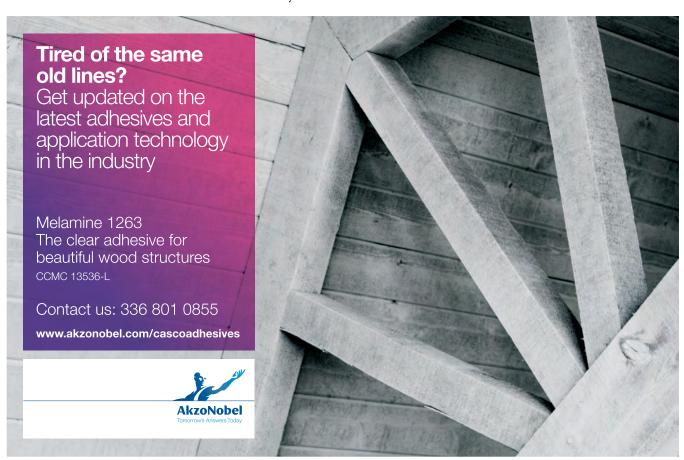
Oriented strand board production rose by just 8 million feet, to 15.3 billion, while plywood output declined by 140 million feet to 10.8 billion feet.

Among other engineered wood products, glulam timber production rose four percent to 203.1 million board feet, wood I-joist volume declined three percent to 456.9 million linear feet, and laminated veneer lumber output totaled 41.6 million cubic feet, almost identical to the previous year.

APA said recently that it expects 2012 housing starts to rise to 680,000 units, up approximately 73,000 units, or 12 percent.

APA's Kositzky Assumes CFEC Management Role

APA Field Services Director Tom Kositzky recently assumed the role of executive director of the Coalition for Fair Energy Codes (CFEC), an industry coalition formed last year to safeguard



and advance wood industry interests in the International Energy Conservation Code (IECC) and in state energy codes.

"Tom's responsibilities with our field staff and residential market program enhance his ability to bring a strong strategic focus on critical wall sheathing and energy initiatives," said APA President Dennis Hardman. "Through his project management and communications with the CFEC funders, he's in a good position to link the offensive work of APA with the defensive work of CFEC."

CFEC activities include federal level education to help assure appreciation of energy efficient wood construction systems, monitoring and attempting to influence state energy codes and legislation, assembling technical data and information in support of scientifically credible energy code policy positions, establishing alliances with other industry partners and supporters, and communicating key messages to stakeholder groups.

In addition to managing the day-today operations of the coalition, Kositzky retains his overall management of APA's Field Services Division and role as residential market coordinator.

Wood Composites Symposium Set for Seattle

The 2012 International Wood Composites Symposium, sponsored by Washington State University's Composite Materials and Engineering Center in collaboration with the Northwest Advanced Renewable Alliance (NARA), will be held April 11-13 in Seattle.

The three-day symposium, titled "Managing the Woody Biomass Supply Chain—Impact on Your Business," will provide an industry-driven forum for wood-based composite producers, biomass managers, suppliers, processors and researchers. The event will include two days of keynote speakers, presentations, networking receptions, poster session and vendor displays. Two tour options also will be available for an additional fee on the final day.

More information on the symposium can be found at www.woodsymposium. wsu.edu.



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Remodeling Market Index Rises to Five-Year High

Remodeling sentiment in the fourth quarter of last year rose to the highest level in five years, according to the National Association of Home Builders' (NAHB) Remodeling Market Index (RMI). The RMI increased to 46.6 in the quarter, up from 41.7 in the third quarter.

"As more consumers remain in their homes rather than move in this economy,

remodelers benefited from a gradual increase in home improvement activity," said NAHB Remodelers Chairman Bob Peterson, a remodeler from Ft. Collins,

With several key components above 50, the latest RMI provides reason for guarded optimism, NAHB Chief Economist David Crowe said. "The residential remodeling market has been improving gradually, mirroring the trend in other

INDUSTRY connections

segments of the housing market. Stringent lending requirements and economic uncertainty continue to be a drag on demand, but we expect a modest growth in remodeling activity to continue throughout 2012."

The Late Floyd Vike Remembered with Bronson J. Lewis Award

The late Floyd Vike was posthumously awarded the 2011 Bronson J. Lewis Award during APA's annual meeting in New Orleans last October. The annual



APA award recognizes individuals for their leadership and outstanding contribution to the engineered wood products industry.

Vike, who died in April of last year, spent 35 years in the forest products

industry, retiring from Willamette Industries in 1997 as executive vice president of the company's building materials group. He was a longtime and active member of the APA Board of Trustees and a leading supporter of APA's expansion into wood I-joists and other structural engineered wood products.

Steve Killgore, vice president at Roseburg Forest Products and a close friend and colleague of Vike's, presented the award during the meeting's general session.

Forest Service Study Underscores Green Merits of Wood

The findings of a recent U.S. Forest Service study indicate that wood should factor as a primary building material in green building, providing compelling new support for industry efforts to advance awareness of the environmental merits of wood products.

The authors of *Science Supporting the* Economic and Environmental Benefits of Using Wood and Wood Products in Green Building Construction reviewed the scientific literature and found that wood yields fewer greenhouse gases than other common construction materials. "This study confirms what many environmental scientists have been saying for years," said U.S. Agriculture Secretary Tom Vilsack. "Wood should be a major component of American building and energy design. The use of wood provides substantial environmental benefits, provides incentives for private landowners to maintain forest land, and provides a critical source of jobs in rural America."

The use of forest products in the U.S. currently supports more than one million direct jobs, particularly in rural areas, and contributes more than \$100 billion to the country's gross domestic product, the USDA said in a news release on the subject.



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New Timber Processing and Energy Expo **Planned for Portland**

The first-ever Timber Processing and Energy Expo will be held Oct. 17-19, 2012 at the Portland Metropolitan Exposition Center in Portland, Ore.

The new event is sponsored by Hatton-Brown Expositions, an affiliate of Hatton-Brown Publishers, which publishes several magazines covering the forest products industry, including Panel World.

The show will be primarily a wood products machinery event, including the lumber, engineered wood products and panel industries, with complementary support by the energy sector, including mill-related wood-based heat energy. The event will also include seminars covering mill operational issues.

Plans for the new show coincided with the announcement last year by Nielsen Expositions that it had indefinitely postponed its 2012 Wood Technology Clinic and Show, which had been held, also in Portland, for more than 40 years.

More information about the Timber Processing and Energy Expo can be found at www.timberprocessingandenergyexpo.com.

Ford Gift Creates Endowed Forestry Deanship at OSU

A \$5 million commitment from APA Trustee Allyn Ford and his wife has created an endowment for the dean's position in the College of Forestry at Oregon State University.

The inaugural Cheryl Ramberg and Allyn C. Ford Deanship of Forestry will be held for Hal Salwasser. Allyn Ford is the president and CEO or Roseburg Forest Products, while Cheryl Ford is secretary for the Ramberg Glass Company Board.

In announcing the gift, OSU President Ed Ray said, "This visionary gift from Allyn and Cheryl Ford illustrates that in tough economic times smart people redouble efforts to preserve the path to excellence. Their investment assures that the college will have outstanding leadership for the next century and beyond."

In Memoriam

Rick Massey, 58, longtime sales rep and marketing manager for Raute Corporation, died Nov. 22, 2011 in Langley, B.C., held degrees in hotel management and sales and marketing, served for several years on the Engineered Wood Technology Association Advisory Committee and was a frequent contributor in recent years to industry trade magazines.

Fred Fields, 88, former owner of Coe Manufacturing, died Dec. 13, 2011 in Palm Springs, Calif., widely recognized throughout the industry as an innovative inventor, manufacturer, financial backer and mentor, was the recipient in 2008 of APA's annual Bronson J. Lewis Award for leadership and industry contribution and in 2005 of the Gustav Carlson Medal for Process Innovation at the plywood industry 100th anniversary celebration in Portland, Ore.

Ward Williams, 85, founding editor of Wood Based Panels International, died Sept. 4, 2011 in Oregon, held a degree in forest management from Oregon State University and worked as a forester in Oregon and Alaska prior to entering journalism and publishing.



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STATE OF AFFAIRS

An Interview with APA President Dennis Hardman on the State of the Industry and Association

EWJ: It's been a tough few years for the structural wood panel and engineered wood products industry. What's your assessment of the challenges facing the industry at this point?

DH: Where do I start? Market demand, of course, is still the primary problem. North American structural wood panel production last year was 26.07 billion square feet on a 3/8" basis. That was almost identical to 2010, and we're still way below the 43 billion feet at the peak of the housing market in 2005. So we have a long road of recovery ahead

of us. There is also the ongoing challenge of safeguarding industry interests in codes and standards. Recently, for example, we've been working to gain fairer treatment of wood products in the International Energy Conservation Code. In addition, the industry faces numerous regulatory challenges, such as the Boiler MACT issue, ever more stringent formaldehyde emissions limits, growing green building requirements, among others. And there is the continuing federal timber supply problem in much of the West. So there's no shortage of challenges.

EWJ: What's the industry production forecast for this year and beyond? Are things looking up? DH: Our annual spring forecast is still

DH: Our annual spring forecast is still in development and will be out shortly. But as of January, we were forecasting U.S. and Canadian plywood and OSB production to rise this year by maybe 800 million square feet, and then begin to increase more dramatically next year and beyond. By 2016, we expect U.S. and Canadian structural wood panel production to be back at around 37 billion square feet, or about a 40 percent increase from 2011.

EWJ: What about the other engineered wood products that APA represents?

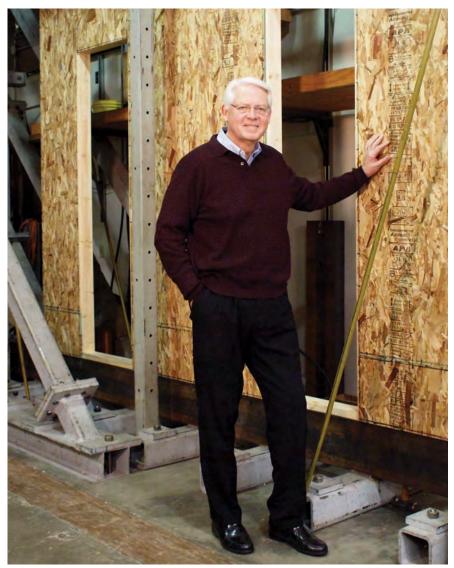
DH: Same thing. Glulam, wood I-joists and laminated veneer lumber should all experience strengthening demand as the economy in general and the housing market in particular improve. Production of I-joists looks especially promising, perhaps doubling by 2016 from the 2011 volume.

EWJ: So, you're expecting some improvement now in the housing market?

DH: Yes, we believe we have hit or are very close to hitting the bottom of the market. But recovery will be slow, with maybe a 10-12 percent increase in U.S. housing starts this year compared with 2011. Looking further ahead, we think U.S. single-family and multifamily starts could reach 1.3 million by 2016. The problem right now is the continuing high inventory of unsold existing homes, including the millions that are in foreclosure. We also need to see stabilization and then increases in home values in order to renew consumer confidence and investment.

EWJ: What about exports? Those have been strong, correct?

DH: Yes. North American plywood and OSB exports, excluding shipments between the two countries, totaled approximately 1.2 billion square feet last year, the highest volume in 12 years. That's been fueled by the weak domestic markets, which have made manufacturers



APA President Dennis Hardman in the association's Tacoma, Wash. research center.

here more aggressive in selling overseas. As domestic demand improves, more of that product is likely to remain in North America, so exports are expected to slow. Conversely, imports have declined recently, but are likely to pick up again as the North American market improves and becomes more attractive to offshore producers.

EWJ: The industrial market is especially important to plywood manufacturers. How's that market looking?

DH: Solid. Demand in industrial markets declined by about nine and ten percent, respectively, in 2008 and 2009, but rose by three percent in 2010 and another four percent or so last year. We expect the rate of growth to remain at about three percent per year over the next several years.

EWJ: You cited regulatory matters as among other industry challenges, including energy codes. What's the issue there?

DH: That has to do with the International Energy Conservation Code, or IECC, which in late 2010 approved changes that in effect unfairly favor foam sheathing over structural wood panels. We did a study that indicated those changes could represent a potential U.S. market demand loss of approximately 905 million square feet of structural wood panels. That's almost 20 percent of the structural wood panel wall sheathing market. So it's a big deal.

EWJ: How are you addressing that challenge?

DH: We and the American Wood Council helped last year to establish an independent coalition of wood products industry manufacturers and associations, called the Coalition for Fair Energy Codes. It has a twofold purpose: first, to ensure that identified priority states adopt energy codes that allow for the continued use of cost-effective building envelope design options that include oriented strand board, plywood and lumber framing, and second, to influence development of future energy codes, including the 2015 IECC, to ensure structural wood products and systems are appropriately regulated and not disadvantaged in their acceptance and use in the marketplace.

EWJ: What does the coalition do exactly?

DH: It has several functions, including federal government level education,

monitoring and attempting to influence state energy codes and legislation, assembling technical data and information in support of credible energy code policy positions, establishing alliances with other industry partners and supporters, and communicating key messages to stakeholder groups.

EWJ: What are APA's strategic priorities this year?

DH: Our priorities are based on a strategic plan that has four chief goals as established by our Board of Trustees. The first is maintaining an independent certification program that assures member compliance with product and performance standards, and that also performs a leading role in setting industry standards. The second is protecting and growing wood product market share. The third is strengthening the voice of the industry through APA membership expansion and strategic partners. And finally, the fourth goal is exercising fiscal responsibility and maintaining organizational effectiveness.

EWJ: You mentioned membership expansion. Has APA's membership been affected by the recession?

DH: Actually, we've increased our membership quite substantially, with approximately 20 new member mills added to the ranks since 2009. Those are fairly evenly split between the U.S. and Canada, and represent most of the products for which APA provides services. During that same period, we have not lost a single mill other than through closure. So we're quite proud of that record. We consider it a remarkable statement of faith in the strategic direction and value proposition of APA during a period of extreme financial pressure on most wood product manufacturing companies.

EWJ: You also mentioned strategic partnerships. What are some of those and what are their purposes?

DH: One of the longest standing examples is our participation in the USDA Foreign Agricultural Service cooperator program, which each provides sizeable grants in support of our international market development efforts. Another example is the Wood Products Council, of which APA is a charter member. The council administers a nonresidential construction market program, called Wood-Works, that is designed to increase wood

"...we've learned a
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product demand in that market. Still another example is the Canada Wood Group, an alliance of mostly Canadian wood products industry associations that coordinates funding for international market development projects sponsored by the Canadian and British Columbian governments. APA is a member of the Coalition for Advanced Wood Structures, a university, industry and government partnership whose mission is to identify and execute cooperative research and technology leading to improvement of wood structures. We also have a close relationship with industry suppliers through the Engineered Wood Technology Association, which is a related APA organization that serves as a networking and information exchange vehicle for manufacturers and suppliers. And also, as I mentioned, we participate in the Coalition for Fair Energy Codes. In fact, the day-to-day operations of CFEC are managed by an APA staff member and APA provides program budget accounting and financial reporting services for the group. We also have longstanding relationships with the U.S. Forest Products Laboratory, American Wood Council, Green Building Strategy Group, Institute for Business and Home Safety, National Association of Home Builders, Canadian Wood Council, American Forest & Paper Association, FPInnovations in Canada, to name a few.

EWJ: With regard to organizational effectiveness, how has APA adjusted or responded to the budget constraints that you must have faced when the economy collapsed?

DH: Well, like almost everyone else in this industry and throughout the country, we had to go through some painful staff and budget cuts, and then adjust our priorities in accordance with the most important needs of our members. That gave rise to the four-point strategic plan that I mentioned earlier. Obviously, quality certification is among the most im-

portant of those member needs, so we've devoted a lot of resources to making sure that we continue to operate the best quality certification program in the industry. I would add that the APA Board continues to review incremental investment that would be necessary to restore APA functions and activities to some pre-recession baseline level, once conditions permit. That's important to our being as prepared as possible to capitalize on market development and other strategic opportunities as the economy and market improve.

EWJ: Speaking of the APA Board of Trustees, who serves on it?

DH: The APA Board is comprised of 15 executive level members who reflect the broad product mix, geographic range and diverse size of APA member companies. We also have an APA member advisory committee system that is actively involved in formulating recommendations and developing program plans related to market development, technical services, quality services, glulam and I-joist/LVL, mill safety, etc.

EWJ: Given the very difficult business conditions over the past fewyears, what APA accomplishments are you most proud of?

DH: I'd have to say the strong member support that we've had during this period is certainly high on the list. That speaks, I think, to the dedication and expertise of the APA staff, and also to the excellent strategic guidance we've received from the APA Board and advisory committees. I'm also proud that despite budget constraints, we have continued to refine and improve our quality certification services, and have remained a globally recognized leader in the standards promulgation arena. I think we have done a good job of protecting market share through a variety of highly targeted promotional programs. And I'm proud of the increased recognition within APA and among APA's members of the importance of safety, although I really need to give credit there to former APA Chairman and current APA Trustee Jeff Wagner of LP, who is passionate on that subject. Jeff was the leading force in reorganizing the annual APA mill safety awards competition and in forming a new APA mill safety advisory committee.

EWJ: Finally, what's the biggest lesson from the last few years of depressed markets?

DH: Clearly, within APA, we've learned a lot about efficiencies and essential member values. As market demand improves we will definitely apply those lessons to rebuilding.



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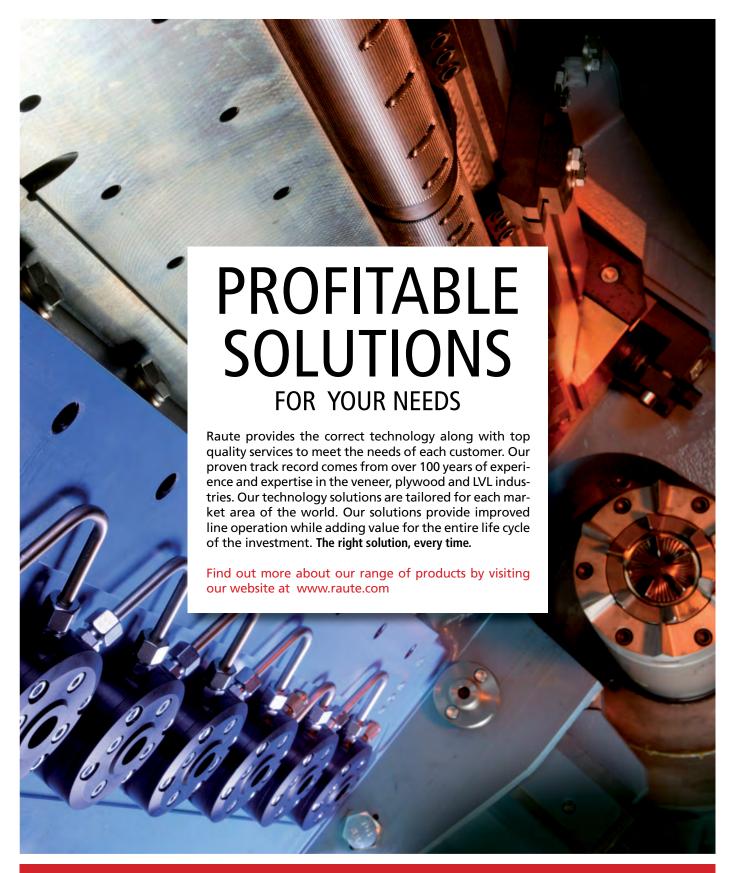




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LOOKING AHEAD

EWTA Business Outlook Survey Suggests Little Change in Expectations

by Jack Merry

ifty-four percent of respondents to a recent Engineered Wood Technology Association member business outlook survey indicated they believe their wood products-related business will improve this year, and another 32 percent are expecting their business prospects will at least remain the same. Only 14 percent of respondents are expecting their wood-related business to worsen.

On that score, the results of the latest annual survey were similar to those of last year's poll, when 55 percent said they expected their wood-related business to improve in the coming year. Thirty-five percent predicted then that their business prospects would likely remain the same.

The web-based survey, sent to all EWTA members late last year, generated a 33 percent response rate. Fifty-seven percent of respondents were in the equipment/tooling category, with the remaining 43 percent split evenly between the materials/supplies and services/consulting categories. Geographically, 54 percent of those responding are based in the U.S., 25 percent in Canada, and 6 percent offshore.

The latest survey suggests a degree of improvement in terms of employment, with 21 percent saying their company's wood-related personnel increased in 2011. Eighteen percent indicated their company's employment declined, with the remaining 61 percent saying it remained the same. In the previous year survey, nearly a third said their company's wood-related employment had declined over the previous year, with only 13 percent indicating employment had risen. The remaining 55 percent said employment had remained the same.

Twenty-one percent of respondents to the latest poll said they expect their company's wood-related employment to increase in 2012, with another 71 percent predicting their company's employment level would remain the same. Only seven percent indicated they expect employment decline.

By that measure, the results of the survey were remarkably similar to those of last year, when 23 percent said they expected employment to increase, three percent expected a decline, and 74 percent predicted year-over-year employment to remain the same.

The overall level of optimism among respondents also was similar to that expressed in the previous-year survey. Forty-six percent said they are more

2010-2011 Survey Response Comparisons

	December	December
	2010 Survey	2011 Survey
Did your company's wood-related business over the past year:		
Improve	39%	39%
Worsen	29%	18%
Stay the Same	32%	43%
Did your company's wood-related business employment level over the past year:		
Increase	13%	21%
Decrease	32%	18%
Stay the Same	55%	61%
Do you expect your company's wood-related business in the coming year to:		
Improve	55%	54%
Worsen	10%	14%
Stay the Same	35%	32%
Do you expect your company's wood-related employment level in the coming year to:		
Increase	23%	21%
Decrease	3%	7%
Stay the Same	74%	71%
How optimistic are you about your wood rela business in the coming year versus last year?	ted	
More Optimistic	52%	46%
Less Optimistic	13%	18%
	35%	36%

optimistic about their company's wood-related business in 2012 compared with 2011, while 36 percent said their level of optimism is the same and 18 percent are less optimistic. In the previous survey, 52 percent expressed greater optimism, 35 percent the same level of optimism, and 13 percent less optimism for the year ahead.

Among factors considered "very important," "important," or "unimportant" to business recovery or expansion this year, the state of the U.S. housing market received a "very important" rating by an overwhelming margin. Almost 93 percent ranked housing as very important. Not surprisingly, economic uncertainty also ranked high on the list of recovery and expansion factors, with 70 percent of respondents indicating that factor is very important.

Other factors given "very important" ranking were international exchange rates or trade policies (39 percent), government economic policy and marketplace competition (each at 36 percent), raw material prices or supply (31 percent), government regulation and transportation costs (each at 25 percent),

and labor issues (4 percent). At least eight out of 10 respondents indicated all of the listed factors, with the exception of labor issues, are either very important or important. Labor issues were cited as either very important or important by 68 percent of respondents.

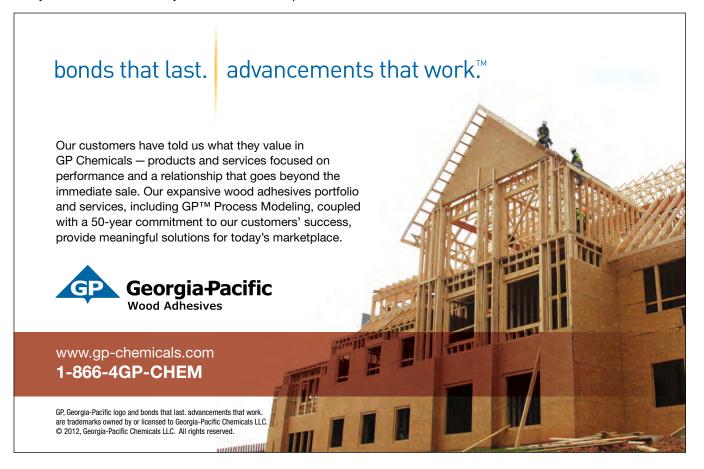
A solid third of respondents cited new product development or diversification into new markets as strategies they have employed for adapting to the continuing weak business conditions. Many also indicated they have pursued ways to provide a better value proposition to customers in order to maintain and expand their business.

Fewer respondents in their survey comments cited company layoffs and downsizing as a survival strategy compared with the previous-year survey, and the specific employment level questions indicated at least modest improvement. For example, only 18 percent of respondents indicated their company reduced employment over the last year, compared with 32 percent in the previous survey. That seems to suggest that the supplier industry has at least reached a level of stability.

Also of note in comparing the results of the two surveys was the disparity between last year's business improvement expectations and actual improvement results. In the latest survey, 39 percent of respondents said their company's wood-related business improved in 2011, while 55 percent of respondents in the earlier survey indicated they expected business improvement in 2011—a 16-point difference. That tends to emphasize the slower-than-expected rate of economic recovery. However, it should be noted that the relatively small survey sample size tends to magnify percentage differences.

As shown by the nearby chart, the results of the 2011 and 2010 surveys were in most respects quite similar, with little in the way of stark contrasts year to year. That might suggest a consensus that the supplier industry considers itself in about the same state of recovery going forward this year as it did last year—a view that also underscores the slow rate of economic recovery.

Jack Merry (jack.merry@apawood. org) is editor of the Engineered Wood Journal.





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2012 Membership Directory

he Engineered Wood Technology Association (EWTA), the related nonprofit supplier organization of APA – The Engineered Wood Association, serves as a networking and information transfer vehicle between North America's engineered wood product manufacturers and their product, equipment and service providers.

This EWTA Membership Directory, updated for 2012, includes company descriptions and contact information for all EWTA members. It is just one among numerous tools, activities and programs designed to advance EWTA's vision "to be the leading supplier organization in the engineered wood products industry."

Membership Benefits

The benefits of EWTA membership are many and substantial. Among them are:

- Direct business-to-business links with your customers in the engineered wood products industry
 through such vehicles and events as Info Fair, an annual supplier show held in conjunction with the
 APA annual meeting; industry forums and seminars; APA annual meeting roundtables and workshops;
 company news and advertising in the Engineered Wood Journal; and dissemination of your company
 news and technology innovations via the EWTA website and Connections e-newsletter.
- Free access to the APA monthly housing starts and quarterly production reports, and discounts on other APA publications and reports.
- Discounts on APA events and Engineered Wood Journal advertising.
- Free company listing and profile in the annual meeting issue of the Engineered Wood Journal for EWTA Info Fair exhibitors.
- Member products and services directory.
- Annual meeting and other event sponsorship opportunities.
- Supplier awards program recognition.
- Opportunities to exchange information with other EWTA members, APA members and APA staff via an EWTA advisory and subcommittee structure.
- Access to APA's staff of quality, technical, market research, market communications, field services and other expert professionals.
- Opportunities to support, participate in and receive the results of important industry technical and market research projects.
- Access to APA laboratory and research resources in support of APA member-driven project and service requests.

The annual cost of EWTA membership is just \$1,200. New members may join anytime during the year at a pro-rated amount. For more information about the benefits of membership or for a membership application, contact Terry Kerwood, Managing Director, 253-620-7237, terry.kerwood@apawood.org. Or visit the EWTA website at www.engineeredwood.org.

Who Should Join

Any supplier of products, equipment or services to the engineered wood products industry will benefit from membership in EWTA. Examples of EWTA member products and services include:

- LATHES
- DRYERS
- CONVEYORS
- PRESSES
- CHARG ERS
- LAY-UP LINES
- BLENDERS
- CLIPPERS
- SANDERS
- EMBOSSING EQUIPMENT
- STACKING SYSTEMS
- MATERIALS HANDLING
- LOG PROCESSING
- ENVIRONMENTAL CONTROL EQUIPMENT
- QUALITY CONTROL AND GRADING SYSTEMS
- POLLUTION CONTROL TECHNOLOGY
- ADHESIVES
- OVERLAY AND SURFACING TREATMENTS
- VENEER SALES
- LUBRICANTS
- RELEASE AGENTS
- MACHINERY PARTS AND SERVICE
- PLANT DESIGN AND ENGINEERING
- MILL OPTIMIZATION CONSULTING SERVICES
- PACKAGING
- STRAPPING SYSTEMS
- TRADEMARKING AND LABELING
- MEASUREMENT EQUIPMENT
- SPARK DETECTION AND FIRE SUPPRESSION SYSTEMS
- ASSEMBLY SYSTEMS
- PRESERVATIVE TREATMENTS
- ELECTRICAL ENGINEERING
- MANAGEMENT CONSULTING
- EMPLOYMENT SERVICES
- TRAINING
- SAFETY EQUIPMENT AND SERVICES
- RECYCLING EQUIPMENT

Acme Packaging

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Contact: Donald L. Person - Senior Product Manager Phone: 630-589-5074

501 W. Lake Street Elmhurst, IL 60126

dperson@acme-packaging.com www.acme-packaging.com



Adalis

Adalis focuses on optimization of plywood and specialty panel production through mill assessments, recovery process control analyses, training and customized service programs.

Contact: Reneé Wilson - Marketing

Phone: 360-574-8828 417 NW 136th St. Vancouver, WA 98685

renee.wilson@adaliscorp.com

www.sesametape.com

AkzoNobel Wood Adhesives

AkzoNobel Wood Adhesives is one of the leading global producers of adhesive systems for the woodworking industry. Our goal is to significantly improve our customer's productivity, environmental impact and production processes by partnering with the industry and focusing on research and development.

Contact: Brian Tolley - Application Manager, Struc-

tural Adhesives Phone: 336-841-5111 PO Box 2103 High Point, NC 27261 Brian.tolley@akzonobel.com www.akzonobel.com/cascoadhesives

Albany International

Albany International is a global advanced textiles and materials processing company founded in 1895. We are headquartered in Rochester, New Hampshire and employ approximately 5,000 people worldwide. Our 26 manufacturing operations are strategically located in 13 countries to serve our global customers. Albany International's core business is production of custom-designed engineered fabrics and process belts, used to manufacture all grades of paper from lightweight technical paper to heavyweight container board. In its family of emerging businesses, Albany applies paper machine clothing technologies to develop unique materials and structures for a variety of other industries, including engineered wood products. Visit us @Albint.com.

Contact: John Schneider - Global Product Manager

Phone: 615-308-9897 139. N. Wynridge Way Goodlettsville, TN 37072 John.Schneider@albint.com www.albint.com



ALTEC Integrated Solutions, Ltd.

ALTEC Integrated Solutions are industry leaders in scanning, optimization, control systems and quality control, with particular expertise in veneer lathe peeling lines and plywood manufacturing. Our customers use our technology and our services to improve their product quality and their bottom line.

Contact: Bill Long - President Phone: 604-529-1991 #101 – 86 North Bend Street Coquitlam, BC V3K 6H1 CANADA blong@alteconline.com www.alteconline.com

Andritz, Inc.

With a comprehensive range of technically advanced products and more than half a century of experience, Andritz Wood Processing Division can supply a customized system for all the stages of your log handling, debarking, and wood and bark processing operations worldwide. Andritz is specialized in supplying complete systems including total project management, all relevant process equipment and control/automation systems. Our range covers all sizes of plants. Our globally organized project group can take responsibility for all stages of your project: design, manufacturing, transportation, erection, commissioning, start-up, staff training. The level of each project service can be structured to match your specific project requirements.

Contact: Joanne Turnell - Sales and Marketing

Coordinator

Phone: 289-239-9456 45 Roy Blvd.

Brantford, ON N3R 7K1 Canada joanne.turnell@andritz.com

www.andritz.com



Arclin - Performance Applied

Based in Mississauga, Ontario, Arclin is a leading producer of innovative bonding, surfacing solutions for the building and construction, industrial materials and natural resource markets. Arclin provides bonding solutions for a number of applications including wood based panels, engineered wood, non-wovens and paper impregnation. As a world leader in paper overlays technology, Arclin provides high value surfacing solutions for decorative panels, building products and industrial specialty applications for North American and export markets. For more information please visit http://www.arclin.com.

Contact: Ted C. Arnberg - Business Director, Structural Panel Resins

Phone: 919-542-2526 ext 3020 2144 Milwaukee Way Tacoma, WA 98421 ted.arnberg@arclin.com www.arclin.com



Argos Solutions

Manufacturer of surface grading systems for saw and sanding lines and automatic panel repair systems for patching of plywood panels.

Contact: Tor Gustavsen - Managing Director

Phone: +47 9166 9414 Dyrmygata 35 NO_3611 Kongsberg, Norway tor@argossolutions.no www.argossolutions.no



Ashland Performance Materials

ISOSET® adhesives from Ashland have been specially formulated for engineered wood product applications. ISOSET adhesives applied in I-joist, glulam beams and structural finger jointing wood applications provide manufacturers with high-strength, structural bonds. They cure fast, clean up easy and dry in a neutral wood color offering an alternative to traditional phenol-resorcinol-formaldehyde (PRF) type adhesives. ISOSET adhesives provide excellent resistance to moisture, elevated temperature and creep making them an ideal choice for engineered wood products. Ashland Inc. (NYSE:ASH) is a Fortune 500 transportation, construction and chemical company providing products, services and customer solutions throughout the world.

Contact: Paul Pfeifer - Technical Sales Representative

Phone: 360-608-6834 11505 NE 33rd Avenue Vancouver, WA 98686 pspfeifer@ashland.com www.ashland.com

Automation Industries Corporation

Supplier of quality assurance equipment to the wood based panel industry for 30 years.

Contact: Clyde Steffens - President

Phone: 970-249-8494 PO Box 1876 Montrose, CO 81402

quality@automationindustriescorp.com http://www.automationindustriescorp.com



BASF Corporation

BASF, The Chemical Company – Global supplier of MDI to the wood industry with extensive experience in MDI conversions.

Contact: Toprak Serhatkulu, Ph.D. - Commercial Manager, Rigid Urethanes North America

Phone: 734-324-6837 1609 Biddle Avenue Wyandotte, MI 48192-3736 toprak.serhatkulu@basf.com www.polyurethanes.basf.us

Calculated Structured Designs Inc.

Calculated Structured Designs (CSD) is a software development company providing enterprise solutions for the engineered wood, architect, design, and building industries. Building with the most recent cutting edge development tools, CSD offers solutions for our industry leading designer, drafters, engineers, and builders.

Contact: Sean Nason - President

Phone: 403 236-5275

Suite 300, 160 Quarry Park Blvd SE

Calgary, AB T2C 3G3 snason@csdsoftware.com www.csdsoftware.com



CARMANAH Design and Manufacturing Inc.

CARMANAH Design and Manufacturing Inc. (CAR-MANAH) of Vancouver is a world leader in the design and manufacture of production equipment for the engineered wood panel industry.

Contact: Carlos Vieira - Capital Sales Manager

Phone: 604-299-3431 Unit #8 – 15050 – 54A Avenue Surrey, BC V3S 5X7 Canada carlos.vieira@carmanahdesign.com www.carmanahdesign.com

Casey Industrial, Inc.

Casey Industrial has provided process installation services for over 60 years to the forest products sector. We self-perform the major trades, work nationwide, and have experience with all major technology providers supporting APA members.

Contact: Richard James - Vice President - Forest

Products Division Phone: 303-524-5386 1400 W. 122nd Ave Suite 200 Westminster, CO 8023-

Westminster, CO 80234 rjames@caseyind.com www.caseyind.com



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Contact: Gerard Przekop - Sales Manager

Phone: 517-545-7844 P.O.Box 860 Howell, MI 48844.0860 gprzekop@chemtrend.com www.chemtrend.com

Clarke Veneers and Plywood

Clarke Veneers and Plywood, an international trading company of wood products, imports, exports and domestically trades veneer, plywood, panels, lumber and engineered wood products and manufactures sliced veneer.

Contact: Stuart H. Clarke - President

Phone: 601-366-0331 PO Box 4876 Jackson, MS 39296 info@clarkeveneers.com www.clarkeveneers.com



Clarke's Industries, Inc.

Clarke's provides a broad range of products for the panel board industry. The products include material storage and metering bins, Pyroguard spark detection and extinguishment system, hi speed abort gates, back draft dampers and explosion venting, waste wood processors, rotary screens and classifiers, rotary airlocks/feeders, fans, dust collection and pneumatic conveying systems.

Contact: Andy Clarke - Vice President of Sales

Phone: 541-343-3395 PO Box 2428 Eugene, OR 97402 andyc@clarkes-ind.com www.clarkes-ind.com



Coil Manufacturing, Ltd.

Coil Manufacturing is the leading manufacturer of rotary drum blenders and spinning disc atomizers for resin application in the engineered wood industry.

Contact: Mike Coil - Manager Phone: 604-596-7578 8269 - 130th Street Surrey, BC V3W 7X4 Canada mike@coilmanufacturing.com www.coilmanufacturing.com



Con-Vey Keystone, Inc.

Con-Vey has over 60 years experience in custom material handling solutions. We engineer and manufacture equipment for lumber, LVL, I-Joists and panels, complete finishing lines.

Contact: Dave Larecy - President Phone: 541-672-5506

PO Box 1399 Roseburg, OR 97470 dave.larecy@con-vey.com www.con-vey.com

DIEFFENBACHER

Dieffenbacher, Inc.

The Dieffenbacher Group of Companies is one of today's leading manufacturers of hydraulic presses and press lines. Established in 1873, it is presently managed by the fourth generation of the founding family, concentrating on the wood, metal, plastics, and isometric areas of technology.

Contact: Larry Frazier - Vice-President

Phone: 770-226-6394 Cumberland Center II 3100 Cumberland Blvd. Ste. 1470 Atlanta, GA 30339 mail@dieffenbacheratl.com www.dieffenbacher.de

Electronic Wood Systems, N.A.

EWS North America was founded in 1993. We are a leading supplier of quality control measuring systems for the wood composite panel board industry, including: thickness gauges, blow detection, moisture measuring, mass (wpua) measuring, weigh scales and density profile measuring systems.

Contact: Steven L. Mays - President

Phone: 503-643-6305 3720-SW 141st Ave., Ste., #206 Beaverton, OR 97005-2349 steve@ews-usa.com www.ews-usa.com

Engineered Coated Products, a division of Intertape Polymer Group

Engineered Coated Products supplies an exclusive automatic wrapping system and other wood wrapping products, promoting safety, reducing labor and providing new packaging alternatives to the engineered wood marketplace.

Contact: Scott Maw - Director of Wood Packaging

Phone: 780-464-7633 3647 Cortez Road West Bradenton, FL 34210 smaw@itape.com www.itape.com

Evergreen Engineering, Inc.

Evergreen is a multi-discipline (mechanical, electrical, civil/structural, and environmental) engineering services company. Our services range from planning and feasibility studies through detailed engineering, as well as construction management, maintenance and process consulting, start-up, and commissioning support. Our wood products experience includes OSB, LVL, I-joist, particleboard, MDF, hardboard, WPC, pulp & paper, lumber, plywood, chemical and resin plants.

Contact: David Pierce - Director, Industrial Business Development 1749 Willow Creek Circle Eugene, OR 97402

dpierce@eeeug.com www.evergreenengineering.com

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Contact: Ed Pridgen - Minifog Product Manager

Phone: 336-299-2933 4365 Federal Drive Greensboro, NC 27410 epridgen@sparkdetection.com www.flamexinc.com



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Atlanta, GA 30303 gpchemical@gapac.com www.gp-chemicals.com



Globe Machine Manufacturing Company

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Contact: Calvin Bamford, Jr. - President

Phone: 253-383-2584 P.O. Box 2274 Tacoma, WA 98421 sales@globemachine.com www.globemachine.com



GreCon, Inc.

Manufacturer of spark detection systems and quality assurance systems for the wood-based panel industry.

Contact: Stephan Rehr-Zimmermann - CEO Phone: 503-641-7731 15875 SW 74th Avenue Tigard, OR 97224

szimmermann@grecon-us.com www.grecon.com/www.grecon-us.com



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Contact: Don MacHarg - Sales Manager, Veneer and Plywood Machinery

10 Herring Road Newnan, GA 30265 Tel: 770-254-5043 Fax: 770-253-5189

Don.MacHarg@Grenzebach.com www.Grenzebach.com

Hinz, A Rockwell Automation Company

Hinz, A Rockwell Automation Company is a singlediscipline electrical engineering company focused on the design of industrial controls and power distribution systems for the engineered wood industry. Contact: Darrell Hinz - BC Regional Manager

Phone: 604-519–8806 750 Chester Road Delta, BC V3M 6J1 Canada dwhinz@ra.rockwell.com www.Hinz.com

Hunt Guillot & Associates

Hunt Guillot & Associates, LLC (HGA) is a multi-disciplined project management and engineering design firm. HGA has been serving the forest products industry since the firm's founding in 1997. HGA continues to provide expertise to the engineered wood products, LVL, I-joist, OSB, plywood, particleboard, glulam and lumber industries. Services provided include project management, feasibility studies, preliminary engineering, detailed design engineering and on-site technical support services.

Contact: Jason E. McIntosh - Business Development Manager

Phone: 318-255-6825 PO Box 580 Ruston, LA 71270 jmcintosh@hga-llc.com www.hga-llc.com

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Contact: John Bebak - Commercial Manager

Phone: 281-719-4916 8600 Gosling Road The Woodlands, TX 77381 john_f_bebak@huntsman.com www.huntsman.com

IBC, International Bar Coding Systems & Consulting Inc.

IBC, International Bar Coding Systems & Consulting Inc. - An integrated manufacturer of the fastest individual piece WOOD PRODUCT specific printer applicator worldwide. For finished or in process units we offer automated package labelers (AutoLabeler) for veneer, OSB, MDF, plywood, lumber and EWP. We manufacture tags and labels for any labeling system and are a single source provider for our specialised Vendor Managed Inventory of consumables. We supply fully integrated data collection systems across North America. Manufacturing or distribution operations in BC, WA and TN. We provide full design, build, onsite service, preventative maintenance, training and consulting on a system wide or mill by mill basis.

Contact: Chris Pedersen - President Phone: 250-493-3201 1940 Barnes Street Penticton, BC V2A 4C3 Canada cpedersen@ibcworld.net www.ibcworld.net



IMEAS

IMEAS is a world leader in surface finishing solutions, with over 2,400 machines operating worldwide. Imeas sanding and grinding machines are used to achieve precise surface finish and thickness on a wide variety of products such as plywood, LVL, composite wood panels, decorative laminates, flooring, and solid surface products, etc. IMEAS specializes in extra wide machines – 10'(3.2 meter) and cross-belt sanding for wood products, and non-directional mirror finish for specialty steel products.

Contact: Nathan Rutherford - President

Phone: 678-364-1900 1125 Commerce Drive Suite 200 Peachtree City, GA 30269 imeas@imeas.net www.imeasinc.com

Itipack Systems

Itipack Systems has been in business since 1970. We are a manufacturer of automated strapping systems. Contact: Harry Scholtens - Sales Manager Phone: 905-333-3695 x224 919 Zelco Dr. Burlington, ON L7L 4Y2 Canada hscholtens@itipacksystems.com www.itipacksystems.com



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KTC Panelboard Engineering

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Contact: Jan Karnik - V.P.
Phone: 604-592-3123
#218-12877 76th Ave

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LIMAB North America, Inc.

LIMAB provides laser measurement equipment for thickness, width and length. Contact: Jens Svensson - President Phone: 704-321-0760 9301-B Monroe Road Charlotte, NC 28270 jens.svensson@limab.com



www.limab.com

BRAND SOLUTIONS

Matthews Marking Products

Matthews Marking Products, established in 1850, is a leading supplier of marking and coding equipment for the engineered wood and building products industries. Matthews supplies turnkey inkjet printing solutions, featuring APA approved inks, for a variety of applications including grade marking, nail patterns, and large format logo printing.

Contact: Donna Meade - Product Manager

Phone: 412-665-2505 6515 Penn Avenue Pittsburgh, PA 15206 info@matw.com www.matthewsmarking.com

MEGTEC Systems, Inc.

MEGTEC supplies air abatement systems (RTO/RCO), heat recovery systems, optimization and rebuild services to the engineered wood industry from our 365,000 sq ft. factory located in De Pere, WI.. As one of the largest global suppliers of RTO/RCO equipment, MEGTEC maintains a large, factory-trained field service technician base capable of servicing every make and model oxidizer, including parts and custom PM Programs.

Contact: Mary Van Vonderen - Marketing Manager

Phone: 920-339-2787 P.O. Box 5030 De Pere, WI 54115 mvanvonderen@megtec.com www.megtec.com

Met-Pro Corporation

Protecting the environment through the combined resources and technologies of the Duall, Flex-Kleen, BioReaction, and Systems brands.

Contact: Mike Foggia - Global Director of Sales and Marketing

Phone: 503-691-2100

20203 SW 95th Avenue Tualatin, OR 97062 mfoggia@met-pro.com www.mpeas.com

Metriguard, Inc.

Metriguard designs and manufactures electronic and mechanical equipment for testing and grading wood products. Metriguard products are designed to measure the physical properties of structural dimension lumber, timber, particleboard, oriented strand board (OSB), plywood, and veneer for use in structural laminated veneer lumber (LVL) and other products. This equipment is used worldwide by sawmills, wood products companies and research facilities.

Contact: Daniel Uskoski - Vice-President of Sales

Phone: 509-332-7526 P.O. Box 399 Pullman, WA 99163 duskoski@metriguard.com www.metriguard.com

Mill Machinery, LLC.

Mill Machinery LLC specializes in selling new, reconditioned and used machinery to the forest products industry. MMC can provide individual machines to complete plants. Our inventory encompasses the MDF, OSB, veneer, LVL, plywood and particleboard sectors of the forest products industry.

Contact: Dave Cowan - CEO Phone: (503-829-3346 31670 S. Hwy 213 Molalla, OR 97038 dave@millmachinery.net http://www.millmachinery.net

MOMENTIVE

Momentive Specialty Chemicals, Inc. .

Momentive Specialty Chemicals, Inc. is a leading global source for adhesives, resins, formaldehyde, melamine and derivatives, and UV-cure coatings serving a broad range of markets including the forest products, foundry, automotive, construction, composites, electronics and oilfield industries, operating more than 50 manufacturing plants in North America, Latin America, Europe and Asia/Pacific. Contact: Mark I. Alness - North America Business Director

Phone: 425-455-4400 520 112th Ave NE, Suite 220

Bellevue, WA 98004

mark.alness@momentive.com www.momentive.com

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Contact: Ron Hait - NA Capital Sales Manager Phone: 250-656-3131

P.O. Box 2128 Sidney, BC V8L 3S6 Canada forestsales@nmbc.com www.debarking.com



Nondestructive Inspection Service

Nondestructive Inspection Service (N.I.S.) was incorporated in 1960. Since that time we have taken preventative maintenance to higher levels of predictive maintenance while saving our customers costly unpredictable down time, on all types of process equipment along the entire production line. We are the established leader in applying our knowledge of NDT and perfecting inspection procedures to exceed industry standards. In the case of wood processing and construction board plants we have developed, tested, and implemented significant innovations on the standard inspection techniques, to shrink costly inspection downtime and overcome the issues of inspecting difficult-to-reach parts of the equipment. Contact: Ed Hauldren - General Manager

Phone: 304-562-6835 PO Box 220 Hurricane, WV 25526 ed@nisforndt.com www.nisforndt.com



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plication Support Phone: 262-490-6325 909 York Imperial Drive Oconomowoc, WI 53066 Lee.Miller@OCInitrogen.com www.ocimelamine.com



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Contact: Chuck Shaw - Director, Business Development

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Panel World Magazine / Hatton-Brown Publishers, Inc.

Panel World's international readership receives six issues per year, with emphasis on mill project startup articles. Product coverage includes softwood and hardwood plywood and veneer, oriented strand board, medium density fiberboard, particleboard and other composite boards and engineered wood products. Hatton-Brown publishes magazines for the forest products Industry, of which Panel World is one.

Contact: Rich Donnell - Editor Phone: 334-834-1170 P.O. Box 2268 Montgomery, AL 36104 rich@hattonbrown.com www.panelworldmag.com

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Signode, an ITW Company

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pment

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VARIATION REDUCTION

Avoiding the Process Improvement Paradox

by Timothy Young

he engineered wood products industry is an important economic sector of the U.S. economy, but it has struggled to be profitable since the 2008 economic recession and related housing market crash. Even though process improvement increases business competitiveness, many manufacturers struggle with lasting and sustainable process improvements. Most process improvement efforts face a paradox that inevitability leads to stagnation or failure. Given the plethora of process improvement marques (e.g., continuous improvement, Six-Sigma Quality, Lean Six-Sigma, etc.), a brief historical perspective is important.

Mass production started in the U.S. at the turn of the 20th century when Henry Ford built the first production line. In 1911 Frederick Taylor published the *Principles of Scientific Management* and 25 years after its printing "Taylorism" thrived with a focus on "manufacturing efficiency." In 1931, Walter A. Shewhart published *Economic Control of Quality of Manufactured Product* while working at Bell Laboratories. This publication was the genesis of modern quality and was the first publication to introduce the use of statistical methods for improving manufacturing processes.

In 1947 W. Edward Deming, a Shewhart disciple, started his lectures in Japan to the Japanese Union of Scientists and Engineers (JUSE) on continuous improvement and statistical process control (SPC). Many believe that the Toyoda family of Japan listened carefully to Deming and merged the concepts of mass production, Taylorism and SPC in the development of the Toyota Production System (TPS).

Following years of market share loss to Japanese imports, the U.S. automotive industry found itself in crisis in the late 1970s. As a result of this crisis, the U.S. government in 1984 funded a five-year

study at MIT on analyzing the Japanese and European automotive industries. A significant outcome of this study was the book by Womack et al: *The Machine that Changed the World—The Story of Lean Production*. This book represented the birth of lean manufacturing in the U.S. as it relabeled and defined the TPS. In the 1990s Mikel Harry worked with Motorola and GE, and the publishing of his training manuals was the birth of Six-Sigma Quality. Today the concept of Six-Sigma Quality has merged with lean manufacturing and is currently known as Lean Six-Sigma.

This historical perspective is important because fundamental to all of the aforementioned philosophies is the concept of "variation reduction." Variation reduction results in improved business competitiveness from reduced operating targets, improved efficiency, lower manufacturing costs and greater customer value. Firms that have received quality awards and been successful in process improvement have also been documented as having higher profitability and return on investment than their competitors. However, why do so many process improvement efforts in the engineered wood products industry struggle or fail? Many organizations face a paradox throughout the process improvement cycle. The paradox arises from a misunderstanding of the basic premises of process improvement.

Seven Premises

INITIATION. The first premise of process improvement is properly defining it. Process improvement is defined as "variation reduction" throughout all processes, products and services of the organization. If this is not a core belief of the organization and developed as fundamental to the vision, process improvement will not be initiated.

The second premise during initiation is that the culture of the organization supports process improvement and allows it to happen.

IMPLEMENTATION. A third premise during implementation of process improvement is consistency of message by executives and management throughout the organization. Executive management is responsible for creating the vision and effectively communicating it throughout the organization. Management responsible for operating the manufacturing facilities must communicate this vision and act accordingly within the plants. Proper hiring and training of support management, engineers, maintenance and operations personnel is essential. If management does not support the vision with action, process improvement will not be implemented.

The fourth premise is defining the key business and process metrics that will be used to measure improvement. These key business and process metrics will be strongly aligned with internal and external customer values. Costs for these business and process metrics will also need to be accurately quantified and tracked (e.g., Taguchi Loss Function).

The fifth premise for successful implementation of process improvement is the ability to accurately measure the key business and process metrics. Many companies collect large volumes of electronic data, but are "data rich and knowledge poor" because meaningful relational databases are not constructed from the data warehouses. Implementation also struggles because the error in measurement systems cannot be quantified and properly monitored.

The sixth premise during implementation of process improvement is accurately quantifying variation of the key business and process metrics. As with the fifth premise, this premise is impossible without the use of statistical methods.

SUSTAINABILITY. The seventh premise, sustaining process improvement, can be difficult. "Low hanging fruit" will be harvested early and variation inherent to processes is not static; it will increase given process and feedstock dynamics. Management must avoid pushing standards or targets too aggressively after initial successes. Sources of variation may be different at the next stage of improvement. To sustain process improvement, proper statistical-based software systems need to be developed and implemented throughout the organization. Management at this stage must be careful not to delegate full responsibility for the process improvement to operations personnel. Production superintendents, supervisors and operators may not have the proper training or willingness to take responsibility for the process improvement efforts.

A key to this seventh premise is validating that the statistical-based software systems are correct before implementation. Presenting software tools that give false signals and direction lose creditability with operations personnel very quickly and the effort will stall. Proper training in the use and understanding of the statistics from these software tools systems is essential.

Applying these seven premises will avoid paradoxes of successful process improvement that lead to stagnation or failure. Executives and management have complete responsibility for the process improvement effort and must establish systems that will support and monitor the process improvement effort. All process improvement efforts will struggle at some point. It is essential, therefore, that an understanding of these premises is gained to avoid the paradox.

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SAVING ENERGY

Maximizing Veneer Dryer Efficiency with Today's Top Performers

by Alan Knokey

he cost of energy for any wood processing operation is a significant component of the cost of doing business. It is therefore important for any plant to implement effective measures that will help to control its energy consumption. This was the impetus for the development of several advancements that, when used alone or in combination, can greatly improve the thermal energy efficiency for drying veneer and other such panel products.

Background

In the 1970s it was discovered that exhausting panel board dryers at the lowest temperature point in the process dramatically improved the thermal efficiency of the dryer. This concept was patented in 1980, and by the early 1990s the concept was implemented in jet veneer dryers as well. The lowest temperature point in a jet veneer dryer is at the wet end. A wet end seal section was added ahead of the main dryer section, where all of the dryer's process air could be pulled from and then exhausted. This *single point exhaust system* process application for veneer dryers was patented in 1997.

One of the early issues that resulted from the single point exhaust system was the buildup of pitch on the interior walls of the wet end seal section. Without adequate cleaning and maintenance there was danger of fire. So it was time to go back to the drawing board and come up with a way to alleviate this problem.

Finding the solution

The solution lay in increasing the height of the wet end seal section, and then heating the air ahead of the exhaust fan to ensure that the volatile organic compound-laden gases (VOCs) remained in gaseous form as they were exhausted out of the dryer. Flow control devices were added to control the mixture of ambient air from the plant and heated air from the dryer section into the wet end seal section, and temperature probes were added to monitor the temperature of the air at several points. This was key to maximizing thermal efficiency in the drying process. The system for controlling flow and monitoring temperature has been coined ADEC for automatic dryer exhaust control, and was patented in 2011.

Today, a flow control fan in the wet end seal section and a main exhaust damper at the dryer section work together to pull heated air from the dryer. A secondary heating system maintains a high temperature as the gasses are mixed, thus alleviating pitch build up. Temperature data gathered via probes at the top of the wet end seal section, the point of air ingress from the dryer section and the point of ambient air ingress from the plant, allows the ADEC system to precisely control the amount of heating of the air mixture that is done inside the wet end seal section prior to exhaust.

The purpose of ADEC is to allow automatic control of the total dryer exhaust volume under all dryer operating conditions and maximize the thermal efficiency of the drying process. Based on set values during dryer operation, ADEC uses the temperature signal differentials to adjust the main exhaust damper accordingly, which in turn exhausts more or less air volume from the dryer section. The exhausted air is then directed through a duct to the plant's pollution abatement equipment.

How ADEC works, in detail

A nominal 4'-0" wet end seal section located on the feed end of the dryer is fitted with a stainless centrifugal exhaust fan. The purpose of this fan is to precisely meter exhaust flow from the seal section. The wet end seal section is equipped with special entry and discharge-end stop-offs.

The wet end exhaust duct is designed to match the height of the dryer's recirculating duct and is fitted with heaters on both the operator and chain sides of the dryer. The duct includes a man access door for cleaning. The heaters provide a temperature boost to the wet end seal exhaust flow, which minimizes pitch buildup in the exhaust treatment duct.

The ADEC system fan is located adjacent to the wet end seal section. The dryer exhaust flow is modulated by an actuated inlet vane damper. A control



loop is established between the ADEC fan damper and two thermocouples that compare ambient air and wet end seal temperatures. ADEC uses the wet end seal section as a blend chamber mixing blowout from the first dryer section with air from the feed section, and uses the difference between these two temperatures multiplied by a scaling factor as the process variable, or PV (see **FIGURE 1**). If the PV rises above the set point the control opens the dryer main exhaust damper, reducing the blowout into the wet seal section, which then brings the PV back to the set point temperature. Conversely, if the PV falls below the set point the control closes the dryer main exhaust damper, increasing blowout into the wet end seal section to bring the PV back to set point temperature.

The numeric difference between these thermocouples provides a true indication of the exhaust requirement of the dryer. When the wet end seal temperature rises above a control set point, it is an indication that pressure is increasing in the



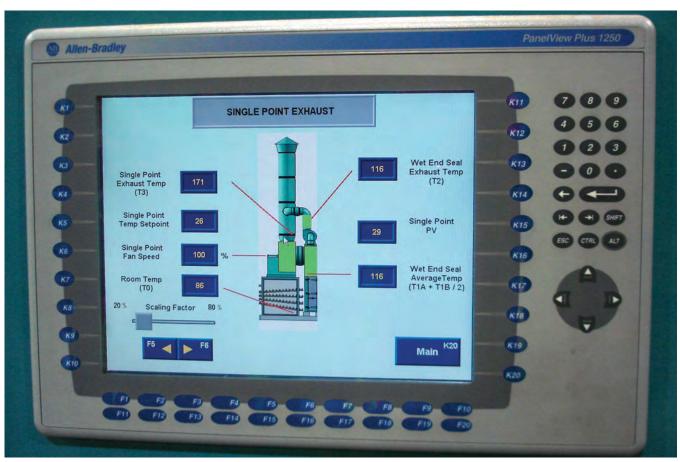


FIGURE 1

dryer. When the wet end seal temperature falls below the control set point it is an indication that pressure is decreasing in the dryer. The ADEC continually adjusts the exhaust flow to prevent fugitive emissions and over-exhausting the dryer.

This control automatically senses the dryer air volume increase caused by the evaporation of water from the veneer and adjusts the exhaust damper so that no dryer fugitives flow from the dryer into the feed section and no feed section air is allowed to enter the drying process. The ADEC control thus maximizes the absolute humidity within the dryer under all load conditions.

Modulating the main exhaust damper maintains a uniform pressure in the dryer. The addition of the heater in the wet end seal section minimizes hydrocarbon condensing in the seal section. In most dryers in North America today, the exhaust air from the dryer is reincinerated via a pollution abatement system to ensure any existing hydrocarbons that are in the exhaust are not discharged into the atmosphere.

The ADEC system works in tandem with two other control methods to ensure the maximum efficiency of the complete drying process, and the highest quality of dried veneer.

Cooler pressure balance control

An automatic cooler pressure balance system controls the cooler exhaust volume under all operating conditions, minimizing the flow of heated process air from the dryer into the cooler section, or cooler air into the hot dryer. This system also helps to maximize thermal efficiency, minimizes pitch buildup which reduces maintenance and cleaning, and allows for automatic veneer temperature control into the dry stacking process.

Mechanical stop-offs are located between the last heated section and the first cooling section. In addition to the main cooling fan, the first cooling section's discharge vent is fitted with an exhaust fan. Pressure sensing manifolds located on both sides of the stop-offs accurately measure the pressure in the last heated section and first cooling section. Any pressure difference commands a change in the cooling section exhaust fan speed.



The effect is a near zero pressure differential between the enclosed dryer and the first cooler seal section under all operating conditions (see **FIGURES 2 and 3**).

Veneer temperature compensation

Uniform temperature control of the veneer exiting the dryer can be maintained independently of the first cooling section by modulating the rotation speed of the cooling fans. If the temperature of the veneer exiting the dryer is too high, the fans

speed up. Conversely, if the temperature of the veneer exiting the dryer is too low, the fans slow down. The first cooler fan will always run with a minimum speed setting to maintain pressure control (see **FIGURE 3**).

Patents are pending on the automatic cooler pressure balance and the veneer temperature compensation systems.

Results

Instrumentation downstream from the dryer monitoring moisture content

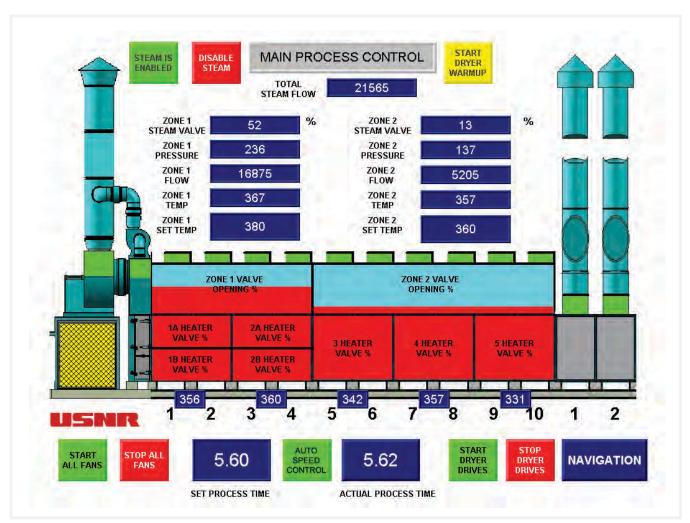


FIGURE 2

indicates a very tight moisture content component in the finished dried veneer. This is attributable to not only the systems described here, but also to the quality of the design and construction of the dryer itself.

Practical applications

The first implementation of the ADEC system was in 2005 in a plant at Kamloops, BC. To date, eight ADEC systems are installed and operating in North America. The improvements described herein are relatively new technology to many plants, but they can be applied to new or existing jet or longitudinal dryers with single zone reverse air systems, and utilizing virtually any heat source.

Alan Knokey is vice president of the Plywood and Panel Division at USNR (www.usnr.com). He can be reached at alan.knokey@usnr.com, 360-225-8267.

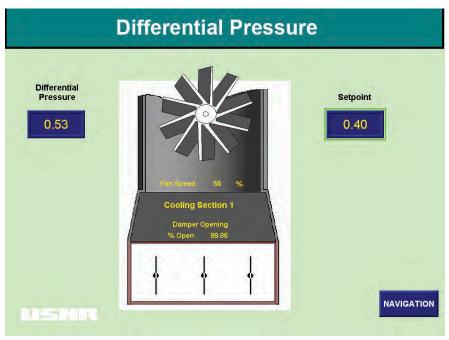


FIGURE 3

EMPLOYEE REWARDS

Do Employers Who Rein in Compensation Too Much Pay a Price Later?

Editor's Note: The following article is republished with permission from Knowledge@Wharton (http://knowledge.wharton.upenn.edu), the online research and business analysis journal of the Wharton School of the University of Pennsylvania.

Knowledge Wharton

s economic malaise bleeds into another New Year, employers are making hard-nosed decisions about benefits and compensation. That means for many in the nation's workforce, compensation remains flat, health care premiums are up, the 401(k) match has disappeared and bonuses are smaller or nonexistent. The result is not hard to guess. When workers feel that "the company is doing fine, but somehow I'm doing worse, at some point there has to be some dissatisfaction with that. It's not sustainable," suggests Wharton management professor Adam Cobb, who studies labor, worker benefits and income inequality. "I think there's a general feeling of: This system is rigged and not in my favor."

A recent survey of 2,500 workers by career website Glassdoor.com found that 17 percent of workers said employers had cut or eliminated bonuses and 15 percent had slashed perks such as commuter subsidies. About one quarter said their companies were in a hiring freeze, and about half reported that employers had cut pay or laid off staff in the last six months. January, once warmly anticipated for a year-end bonus, may be remembered in 2012 as the month that year-end gifts—along with other perks, pay and benefits—disappeared.

Going into 2012, employers have little incentive to loosen the purse strings. After three years of recession, company shareholders are clamoring for profits. Economic activity has increased, and economists speak tentatively of a turnaround, but the possibility of a financial

crisis in Europe threatens recovery. In the U.S., the upcoming presidential election and the uncertain future of health care reform throw question marks into employers' pay and benefits calculations. And with unemployment at 8.5 percent and competition for jobs fierce, most workers are staying put.

"Employees can be really disgruntled, [but] that doesn't mean they're going to leave," Cobb points out. "Where are they going to go?"

Firms may pay a price for frugality when the economy turns around, says Cobb and other human resource experts. Companies are meeting short-term targets now, but it is not clear what the long-term impacts of cost cutting will be. Some note that slashing labor costs too severely—especially if a firm is healthy—could do long-term damage to a company's reputation and morale.

"Companies are meeting short-term targets now, but it is not clear what the long-term impacts of cost cutting will be."

"Worker productivity is going up, companies are sitting on mountains of cash and they are still cutting benefits," Cobb says. He wonders what that might do to a company's ability to attract talent long term, especially in an age of free-flowing online complaints. Could online posts by frustrated staff haunt companies down the road? The last recession came before the age of Twitter, Facebook, blogs

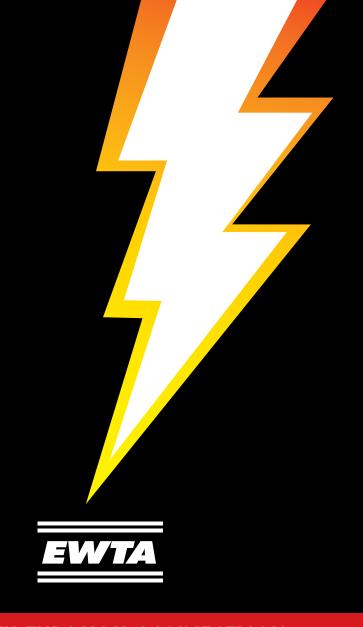
and social media, Cobb notes. Workers today are able to vent frustrations online, and can find out more about companies by reading employee posts. If a frustrated worker "writes an angry blog about company X cutting health care benefits, that isn't ever going away," he says. "These are things firms might not be thinking about."

Cobb points out that 2011 was a record year for stock buybacks, which cheer a company's shareholders but do little for employees. "These firms are sitting on [piles] of cash and what are they doing with it? They're buying back stock" to drive up share price, Cobb notes. "Why they aren't starting to loosen up on the benefits is a really good question. I find it to be a more short-sighted approach...when the lever that firms choose to pull is immediately to cut labor costs." Then again, he adds, "I don't have shareholders breathing down my neck."

To be sure, a few companies are experimenting with benefits as a way to keep employees engaged. A December article in USA Today reports that some companies are offering "quirky perks" like "at-your-desk meditation services, jewelry discounts and funeral planning" to "placate" frustrated employees. Cobb calls this "a little boy sticking his finger into the crack" in the dam. "It's missing the bigger point. My guess is those things would work much better in a company where they had stable retirement and health care benefits. Otherwise, it's an empty short-term morale-boosting strategy that falls flat-"kind of like the \$20 gift card at Christmas," Cobb says. "When I'm used to a \$5,000 bonus, it doesn't help me pay my mortgage."

Keeping the Lights On

Steven D. Spencer, an adjunct lecturer at the University of Pennsylvania Law School and practice group leader for employee benefits at Morgan, Lewis & Bockius, a global law firm headquartered in Philadelphia, doesn't see firms resort-



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www.engineeredwood.org EWTA@apawood.org 253-620-7237 ing to "quirky" perks to compensate for lost benefits. "I can't really say I've seen a lot of money spent on outside-the-box benefits, and I work across a lot of different industries, from the arts to supermarkets to bakeries," he notes. With many employees simply happy to have jobs, most employers aren't using benefits to attract and retain talent, and they're not trying to find new perks to add. Most firms are simply trying to meet existing obligations. "Since 2008," says Spencer, "they've all been trying to figure out how to...turn on the lights and pay people."

The cutbacks are starting to take their toll on employees. MetLife's "9th Annual Study of Employee Benefits Trends" reported employee loyalty on the decline. The study found employers of all sizes had shown productivity gains, but more than a third of workers (36 percent) were itching to move. More recently, Careerbuilder's 2012 U.S. Job Forecast found that 43 percent of human resource managers were concerned that top talent could leave in 2012. About one-third of human resource managers polled said that voluntary turnover at their organizations rose in 2011, with employees citing compensation and feeling overworked as the top two reasons for quitting.

A generation ago, when a company laid people off, employees who remained saw little change in their work, notes Wharton management professor Peter Cappelli, director of Wharton's Center for Human Resources. "Now that's not true. When there are layoffs, the people who survive find they have a lot more work to do."

For large public companies, pressure from shareholders can drive cutbacks even if the company is doing well and productivity is up. Employers are looking at two things when making decisions about cutting workers, Cappelli says: "What's happening to our quarterly financial performance? Are we going to make our numbers—and if not, we're going to lay people off so we can—and the other is, what is everybody else doing?" If the competition is slashing pay and forcing furloughs, analysts may question why a firm hasn't followed suit. Sometimes companies will announce layoffs and never follow through "as a way to

"About one-third of human resource managers polled said that voluntary turnover at their organizations rose in 2011, with employees citing compensation and feeling overworked as the top two reasons for quitting."

get the industry analysts off their backs," Cappelli notes.

Despite the bottom-line focus, companies are not yet calculating the cost that repeated downsizing, benefit trimming and pay freezes may have on employee performance, engagement and turnover, Cappelli says. "I have yet to see a company that has even attempted to work this out. That is, if we squeeze, what's that doing to performance, engagement, quit rates...They are not thinking about these employment issues in cost-benefit ways... They say, 'Well, the economy is still soft; people aren't quitting.' When employers have power," notes Cappelli, "they push."

Philip A. Miscimarra sees it more from the employer's point of view. As a partner in labor and employment law with Morgan Lewis, Miscimarra frequently works with companies that are relocating, outsourcing, downsizing or undergoing some type of major restructuring—activities that have accelerated in recent years. "The pace of business has changed dramatically," he says. "There's not only more of this activity, but the

growth of this activity has increased at a faster pace....It used to be that companies would be doing one major change every five years. Now most companies are undergoing these types of changes all the time."

Companies are not only facing a complex and competitive work environment, but also a diverging workforce that demands different types of compensation and benefits. Many companies have a workforce shaped like a "W," Miscimarra notes—heavy in younger and older workers, with few in between. Structuring a mix of benefits that keeps everybody happy yet remains affordable for the company can be a challenge. "When I was a younger attorney, I probably would have accepted compensation in beer," he jokes. "Now the mix I'm looking for is very different."

When firms are constantly in the process of getting into new business lines, getting rid of old business lines or completely changing the nature of the business itself, it creates pressure on both workers and management. In the midst of such change, it can be very challenging to get compensation right. "I don't see the companies that we work with going out and making hard-nosed decisions because they want higher productivity" at the expense of employee well-being, says Miscimarra, a senior fellow at Wharton and managing director of the Wharton Center for Human Resources' research advisory group. "Everything a major company does is accomplished through people....What I see is that people who drive these types of decisions within companies are trying to accomplish something....We're far from an environment where business can just make decisions unilaterally," he adds. In this downturn, "more and more companies have an urgent need to do more with less."

A Shift to Temporary Workers

In some cases, that means outsourcing work to contractors and avoiding employee benefits entirely. The Careerbuilder survey found that 35 percent of U.S. companies have smaller staffs than before the recession, and many are turning to staffing and recruiting companies to fill in the gap.

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Staffing firms "are seeing a great market for their services," and predict that "the experience of the savage cuts two or three years ago is going to contribute to more temporary work" in 2012, says Wharton management professor Matthew Bidwell, whose research examines contractors, short-term workers and new patterns in work and employment. With a potential financial crisis in the Eurozone still looming, "companies are going to be much more careful about having a lot of regular employees."

It is too early to say whether the shift to temporary workers will be permanent, Bidwell notes. In past research, he found that companies that hired contract workers often did so for reasons of flexibility—such as not having to pay health care benefits or a full-time salary. But once the contractors had worked for a certain amount of time, they acquired knowledge that became critical for company operations. In the end, companies often converted the contract workers to permanent full-time staff. "Just because you don't have to pay them severance doesn't make it any easier to let them go," Bidwell states.

Another wrinkle for employers: health care reform could upend the traditional benefits of a temporary workforce. "One of the great appeals of temporary workers in some fields is that [firms] don't have to pay health insurance, and that makes [employees] cheaper," Bidwell says. Depending on how health care reform plays out, mandates for universal coverage could change that structure. "With the health care reforms, people are going to have to find ways to cover health care costs."

Bidwell also wonders how three years of pay freezes might change company attitudes. "I'd be curious to know what the long-term impact of those pay freezes are. If the hiring market improves, will people quit? Or will some organizations decide that, 'Hey, we don't need to give automatic raises' anymore."

Doing more with less is also leading companies to link pay more strongly with performance, according to global human resource consulting firm Mercer. The firm's 2011/2012 US Compensation Planning Survey, an annual survey of 1,200 employers representing more than

12 million workers, found companies increasingly segmenting their workforce to concentrate rewards on key and top employees. The survey found that the top 8 percent of the workforce rated as "highest-performing" received an average base pay increase of 4.4 percent in 2011, while those rated as "average performers," or 54 percent of the workforce, got an average 2.8 percent increase.

"If the competition is slashing pay and forcing furloughs, analysts may question why a firm hasn't followed suit."

In a recession, turnover of lower-level employees is likely to be less problematic for firms since it is easier to hire replacement employees at those levels, says Wharton accounting professor Wayne Guay, who studies executive compensation and incentives. "Therefore, compensation and/or benefits can be cut by more than for upper-level employees."

Most perks and benefits stem from either the economies-of-scale efficiency with which the company can provide the service as compared to the employee acquiring it on their own—such as with health, dental and life insurance—or from tax advantages, such as a tax-deferred retirement account. "In a recession, all forms of compensation get cut, but certain forms of compensation are likely to be less essential to lower-level employees. For example, cash is more important to lower-level employees in a recession—in fact, during most times than something like life insurance, so benefits/perks will be cut before cash pay," he says.

While recent scrutiny of executive compensation has led many firms to scale back on elaborate perks for upper management, employees may still become disgruntled if there's a perception that top management is well compensated while the rank-and-file suffer. "If senior management gets their increase and bonus, but the lower level employees aren't getting anything, you can have morale issues," Guay says. Employees may accept a salary freeze during a recession when times are tough, but "once unemployment rates go down, it's just a matter of market forces....If the demand for labor is growing or even stable, you would expect pay to have a rise."

It is tough to say whether employee morale will become an increasing problem for companies as the financial crisis wears on, notes Wharton management professor Adam Grant, who studies job motivation and meaningful work. "On one hand, financial security is an important determinant of morale, so there's reason to believe that companies will be facing difficulties. On the other hand, when times are tight, some employees become more grateful for the positive features of their jobs. This is only possible, though, if companies retain the practices that make employees' jobs intrinsically motivating and meaningful."

Extensive research shows that employees are more willing to accept negative outcomes when they feel that decisionmaking processes are fair and just, Grant points out. "When bosses can't promise eternal employment, the best substitute is to offer neutrality, transparency and employee involvement in decision-making."

Counter intuitively, the recession "might be a really good time to give people a small raise, or maybe a bonus," Wharton's Cobb suggests. "I think the evidence would show that having a good relationship with your workers is actually a strategic advantage for firms, but I don't think that's an attitude that is shared among many CEOs, because the easiest thing to do is cut labor costs. It's tough, and it takes courage...to believe that the path to success is not making these cuts" and rewarding employees instead. Cobb does not expect firms will follow his advice, however. "Between Europe and the presidential election, there's a fair amount of uncertainty" that makes companies reluctant to expand, he says. "I think companies will still sit on their big mountains of cash." m









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Boise Cascade's Nyblad Appointed APA Board of Trustees Chairman

Mary Jo Nyblad, plywood sales and marketing manager at Boise Cascade

LLC, was appointed chairman of the APA Board of Trustees during the association's annual meeting in New Orleans, La. last fall. She succeeds Jeff Wagner, vice



president of OSB at LP, who completed his two-year term.

Nyblad has served on the APA board for more than six years and previously

served as vice chair of the board and chairman of the APA Marketing Advisory and Finance Committees.

Succeeding her as APA vice chairman is Tom Temple, vice president, wood products at Potlatch Corporation. Also elected recently to the APA Board were Jim Lake, president and chief operating officer of Ainsworth Lumber Company, and Mike Dawson, vice president of sales, marketing and logistics at Norbord. Lake succeeds Richard Huff, who retired from Ainsworth last year, while Dawson fills a board vacancy.

EWTA Earmarks \$10,000 **For APA Test Program**

The Engineered Wood Technology Association Advisory Committee recently approved the expenditure of \$10,000 in support of an APA test program to advance code recognition of wood structural panels as a nail base for siding.

"With the upcoming changes to the national and local energy codes, 2x6 construction at 24" on center represents one of the most cost-effective technologies for improving the energy performance of the building enclosure and meeting new energy code requirements," the funding proposal stated. The 2x6 24" framing option "is one of the primary methods that will be used to counter the foam industry's heavy promotion of 2x4 framing with foam wall sheathing," the proposal noted.

At stake is the wood structural panel industry's 80 percent share of the residential wall sheathing market, estimated to represent more than 1.3 billion square feet (3/8" basis) in 2011. The USDA Forest Products Laboratory also has pledged \$10,000 in support of the test project.

A test report will be published once the research project is completed.

Weyerhaeuser's Hudson **Bay OSB Mill Joins APA**

Weyerhaeuser Company's Hudson Bay, Saskatchewan OSB mill has joined APA, the association announced recently. "We're pleased to welcome Weyerhaeuser back to APA, and look forward to working with them, both at the mill and corporate levels," said APA President Dennis

Since 2009, APA has added approximately 20 mills to its membership ranks, with the additions nearly evenly split between the U.S. and Canada. During that same period, the association has not lost a single member mill other than through closure, APA reported.

LP's Harrison, Hunt Guillot's **McIntosh Elected to EWTA Advisory Committee**

Greg Harrison of LP and Jason McIntosh of Hunt Guillot & Associates were elected recently to the Engineered Wood Technology Association Advisory Committee. Harrison replaces Brian Luoma of LP and McIntosh succeeds Steven Blackwelder of Hunt Guillot, both of whom resigned their positions.

LP is among five APA member company representatives who serve on the committee. Hunt Guillot is a Consulting and Services category member of EWTA.

APA Joins in Request for New Formaldehyde Study

APA has joined with 21 other associations and organizations in a request that U.S. Department of Health and Human Services Secretary Kathleen Sebelius commission the National Academy of Sciences (NAS) to conduct a definitive study on the alleged link between formaldehyde exposure and leukemia.

The request was driven by the need to settle the scientific controversy that has arisen since the National Toxicology Program (NTP) issued a substance profile last year that asserts formaldehyde is a "known human carcinogen." The NTP's action contradicts the findings and conclusions of an NAS committee's independent scientific review of a draft formaldehyde IRIS assessment from the Environmental Protection Agency.

In seeking the study, the signatories hope to achieve consistency in the form of a government-wide policy that is based on sound science.

Annual Meeting, Info Fair Heading Back to Amelia Island

The 2012 APA annual meeting and Info Fair supplier exhibition will return this year to the popular Ritz-Carlton on Amelia Island, Fla., where the event was last held in 2009.

Located approximately 30 minutes from Jacksonville International Airport, Amelia Island is the southernmost of the Sea Islands, a chain of barrier islands along the U.S. eastern seaboard. The three-day meeting will be held Nov.

The Info Fair supplier show, for which a new logo was recently developed, is expected to attract 50 or more exhibitors from the ranks the Engineered Wood



Technology Association's product, equipment and service supplier members. The show is sponsored by EWTA.

More information about the meeting will be sent soon to all APA and EWTA members.

2012 EWTA Supplier Awards Program Schedule Set

Ballots for the 2012 EWTA Supplier of the Year Awards and EWTA member entries for the Innovation of the Year Award will be sent in mid-July to APA mill managers.

The supplier awards are based on the quality, service and delivery of EWTA member products and services to APA member mills, and are selected by votes of APA mill managers. Awards are presented for each of EWTA's three membership categories: equipment and tooling, materials and supplies, and consulting and services.

The Innovation Award recognizes a new technology or product that has been shown to provide a substantial bottom line benefit to APA members. EWTA members submit entries for the Innovation award to APA mill managers, who then select the winners.

Winners of both the Supplier of the Year and Innovation Awards will be announced in the fall issue of the *Engineered Wood Journal* and then also recognized during the APA annual meeting in November on Amelia Island, Fla.

APA Receives \$331,000 in Program Funding Support

The U.S. Forest Service Forest Products Laboratory has awarded APA \$331,000 in funding to support several residential construction programs.

The programs, which build on the successful APA Carbon Challenge design competition and seminars completed last year, are designed to educate builders and designers about environmentally friendly single-family house designs using structural wood panels and engineered wood products.

Activities supported by the funding include an urban demonstration project in Baltimore, Md.; phase two of the Carbon Challenge program in Florida, including partnership with a national production builder; a demonstration project in the Western U.S., featuring wood structural wall systems; and a series of seminars in targeted markets focused on cost-effective and energy efficient wood wall systems.

APA Submits Ten 2015 IBC Code Change Proposals

Recognition of two consensus-based American National Standards are among ten code change proposals submitted recently by APA for the 2015 International Building Code (IBC).

The two standards, developed by APA, are ANSI/APA PRR 410-2011 Performance Standard for Engineered Wood Rim Boards and ANSI/APA PRG 320-2011 Performance Standard for Cross-Laminated Timber. When adopted by the 2015 IBC, the two products will be considered code-compliant construction materials without the need for expensive code evaluation reports.

Among other code change proposals are three that are designed to make wood structural panels the most attractive option for residential construction and force competitive materials, such as foam sheathing, to meet structural performance requirements in order to claim equivalency to wood structural panels at the code level.

The code hearings are scheduled for April 29 through May 6 in Dallas, Texas.

New Study to Revisit Nonres Construction Market

APA will manage a Wood Products Council (WPC) study that takes a new look at wood products and competitive materials used in nonresidential building construction. The study, Wood Products Used In New Nonresidential Construction—2011, will update similar studies conducted in 1985, 1995 and 2003. The \$308,000 study is being funded by the U.S. Forest Service, Forestry Innovation Investment Ltd., Natural Resources Canada, FPInnovations and WoodWorks (via the Wood Products Council). The project is scheduled to be completed by mid-2012.

In addition to learning about the volume and type of structural products used, the study will document use of exposed columns and beams, windows, doors and other architectural millwork. It will also examine the specification of sustainably harvested wood and whether LEED certification is planned. Nonresidential building construction in Canada will be studied in the same detail as in the U.S.



Raute Receives Orders for Rebuilding Arauco Plywood Plant in Chile

Raute Corporation has received orders valued at over Euro 50 million from Paneles Arauco S.A. in Chile for plywood mill machinery and equipment as part of the rebuilding of the South American company's plywood mill that burned down earlier this year.

The orders, among others, include two state-of-the-art veneer peeling lines, three drying lines equipped with latest machine vision and moisture meter technology, four automatic plywood gluing and lay-up lines, three plywood presses, an automatic veneer patching line with three automatic veneer puttying lines, and the mill's production management system. The orders are the biggest in Raute's history, the company reported.

The Arauco mill, which the company has said will take at least two years to rebuild, produced approximately 450,000 cubic meters (508 million square feet, 3/8" basis) of plywood annually. The production capacity of the new mill will be 350,000 cubic meters (395.5 million square feet, 3/8").

As a country, Chile exported 301 million square feet of plywood to the U.S. through the first 10 months of 2011, and approximately 1.1 billion feet overall to all countries. Although a precise assessment of the loss of the Arauco mill's production capacity on U.S. producers is unclear, U.S. manufacturers, particularly southern pine plywood producers, have seen increases in demand, APA reported.

Ashland Embarks on Three-Year Growth Strategy

Ashland Inc. announced recently it has embarked on a three-year growth strategy that focuses on sales growth and earnings expansion. The plan emphasizes innovation and new technology across each of the company's four business units, including Ashland Performance Materials, the company said in a news release.

"Ashland today is a fundamentally different company than we were several years ago," said James J. O'Brien, chairman and CEO. "Since 2004, we have completely transformed our business portfolio by divesting most of our cyclical businesses and focusing on higher-margin, faster-growing segments," he said.

In 2004, approximately 88 percent of Ashland's sales came from North America. Today nearly half of the company's sales come from outside the United States, with approximately 20 percent from high-growth emerging markets in Asia and Latin America, the company said.

Momentive Completes Tech Center Expansion

Momentive Specialty Chemicals Inc. recently completed expansion of its technical center in Stafford, Texas, the company announced.

The \$3 million expansion of the company's North American chemical research hub enables Momentive to add 20 new research and technical roles at the site, as well as new research labs, applications and testing areas, and office space. An additional expansion project at the site, which was slated for completion the first quarter of 2012, involves renovation of the existing 45,000 square feet of space.

Upon completion, 45 Momentive associates currently housed in office space in downtown Houston will relocate to the Stafford site, the company said. "We are excited about the formation of our new growth-focused technology group, which will augment our existing R&D efforts by exploring new products, new technologies and new market opportunities," said Rich Myers, executive vice president, technology.

Electronic Wood Systems Introduces New Generation of Blow Detection Systems

Electronic Wood Systems has introduced three new blow detection systems based on ultrasonic inspection for the panel board industry, the company reported.

The three systems are the "Ply-Scan" type, especially designed to be used for plywood inspection; the "Blow-Scan" type for standard blow detection applications in particleboard, MDF and OSB production lines; and the "Conti-Sound" type, with new technology to additionally analyze changes of panel properties.

"Ply-Scan" is a low-priced system providing blow/no-blow function only, visualizes basic information and is extra easy to operate. "Blow-Scan" and "Conti-Sound" models include temperature compensation and provide no-load online calibration to compensate for dust and other environmental influences. These features replace the function of so-called moving frames for outside-of-line calibrations, the company said. Both systems provide panel property changes by displaying a multiple color picture of the panels on the screen.



"Conti-Sound" reflection measurement receivers (red) increase reliability of sound picture showing panel property changes.

"Conti-Sound" uses a unique feature by measuring not only the sound penetration but also the sound reflection on the panel surface. Applied research shows sensitive influence to the ultrasonic sound reflection induced by changes of panel properties. This signal can be used for the display of reliable sound pictures of panel property changes.

"Since introduction of the new generation of blow detection systems at LIGNA last year, eight systems have been successfully put in operation in MDF, particleboard, OSB and plywood production lines," said Electronic Wood Systems President Steven L. Mays.

Weyerhaeuser Recognized as Global Sustainability Leader

Weyerhaeuser Company has been named to the Dow Jones Sustainability World Index, which tracks companies on their economic, environmental and social performance.

The company is one of only eight building materials companies to be included in the index. Weyerhaeuser also continues to be a member of the DJSI North America, as it has every year since its inception in 2005, the company said.

The DJSI follows a best-in-class approach and includes sustainability leaders from each industry on a global and regional level. The annual review is based on criteria such as corporate governance, risk management, customer relations, climate change strategy and labor practices.

The index recognizes the sustainability performance of the top ten percent of the largest 2,500 companies in the Dow Jones Global Total Stock Market Index.

Evergreen Engineering Moves to New Premises

After 26 years in the same location in Eugene, Ore., Evergreen Engineering Inc. announced recently it has moved to new premises at 1740 Willow Creek Circle in Eugene.

The new offices are located in a modern campus setting in the west side of the city and offers easy access to freeways and the airport, the company reported. "We are growing...and this move will allow us to continue to expand and improve our company," said Evergreen principal and co-founder Rich Bernhardt.

Boise Cascade Buys Stimson Sawmill

Boise Cascade Wood Products, L.L.C., a subsidiary of Boise Cascade, L.L.C., announced recently the purchase of the assets of the Stimson Lumber Company sawmill in Arden, Wash.

"Given the mill is geographically located near our Kettle Falls operations and is a well designed, highly efficient facility, the Arden sawmill is a nice complement to our lumber business," said Inland Region Manager Tom Insko.

The transaction closed Feb. 1.

LP Names Stevens Chief Operating Officer

Louisiana-Pacific Corporation announced that Executive Vice President Curt Stevens, LP's chief financial officer since 1997, moved into the interim position of executive vice president and chief operating officer, newly created by the company's board of directors for the purpose of implementing its orderly management succession plan.

LP also announced that Sallie B. Bailey has joined the company as executive vice president and chief financial officer. She previously held a variety of senior finance positions, including CFO, at Ferro Corporation and was senior vice president, finance and controller with Timken Corporation.

In his new capacity, Stevens is responsible for the company's sales and marketing, operating units and support functions, while Bailey oversees financial matters. Both report to CEO Rick Frost.

Arclin Appoints New President and CEO

Russ Taylor, formerly president and CEO of Cellu Tissue Holdings Inc., was appointed recently as president and CEO of Arclin, the company reported.

Taylor succeeds Claudio D'Ambrosio, who announced his decision to retire last June. "We look forward to Russ aggressively leading the company as the economy recovers and Arclin takes advantage of value-enhancing growth opportunities," said Chris Boyle, a member of the company's board of directors.

Roy O. Martin III Appointed to Louisiana Board of Regents

Roy O. Martin III, president and chief financial officer for Roy O. Martin Lumber Co. LLC, Martin Timber Co. LLC, and Martin Cos. LLC, has been appointed by Louisiana Governor Bobby Jindal to the Louisiana Board of Regents, the state's higher education policy and coordinating board.

Martin, who has served on several state government panels, including most recently the Streamlining Commission, holds a bachelor's degree in mechanical engineering and a master's of business administration, both from Louisiana State University. He was named to LSU's Alumni Hall of Distinction and the LSU School of Business Hall of Distinction in 2008. He is also a member of the LSU College of Engineering Hall of Distinction.

IP Completes Acquisition of Temple-Inland

International Paper Company announced recently that it completed its acquisition of Temple-Inland Inc. through the merger of its wholly owned subsidiary Metal Acquisition Inc. with Temple-Inland. Temple-Inland is now a wholly owned subsidiary of International Paper.

Including the assumption of approximately \$700 million in Temple-Inland net debt, the total transaction value is approximately \$4.5 billion.

International Paper Chairman and CEO John Faraci said, "We are very pleased to have completed this compelling transaction. The combination of International Paper and Temple-Inland strengthens our North American packaging business and enhances our ability to generate cash flow while maintaining our strong balance sheet. We look forward to working with the employees of Temple-Inland as we successfully integrate our businesses and create an even stronger company with substantial benefits for our customers, employees and shareholders."

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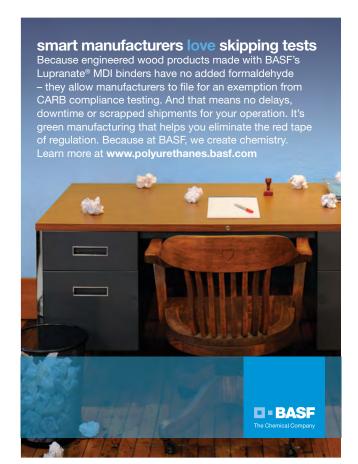


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UPCOMING connections

2012

APRIL

- 11-13 International Wood Composites Symposium, Seattle, Wash., www.woodsymposium.wsu.edu
- **18-21** Forest Resources Association Annual Meeting, Jacksonville, Fla., www.forestresources.org
- **29-1** NAHB National Green Building Conference & Expo, Nashville, Tenn., www.nahb.org
- 29-2 American Wood Protection Association Annual Meeting, Nashville, Tenn., www.awpa.com

MAY

- 1-3 Forest Products Society SmallWood 2012, Flagstaff, Ariz., www.forestprod.org
- **6-8** Hardwood Plywood & Veneer Association Spring Conference, Hilton Head, S.C., www.hpva.org
 - 9 International WOOD MARKETS Group Global Wood Products: Industry & Market Conference, Vancouver, BC, www.woodmarkets.com
- 10 PwC Global Forest & Paper Industry Conference, Vancouver, B.C., www.pwc.com
- **17-19** American Institute of Architects Convention & Design Exposition, Washington, D.C., www.aia.org

JUNE

- 3-5 Forest Products Society 66th International Convention, Washington, D.C, www.forestprod.org
- **3-5** Composite Panel Association Annual Spring Meeting, Miami Beach, Fla., www.pbmdf.com

AUGUST

27-31 Society of Wood Science & Technology International Convention, Beijing, China, www.swst.org

SEPTEMBER

11-14 Construction Specifications Institute CONSTRCT & Annual Convention, Phoenix, Ariz., www.constructshow.com

OCTOBER

- **10-12** Hanley Wood Remodeling Expo, Baltimore, Md., www.remodelingshow.com
- **17-19** Timber Processing & Energy Expo, Portland, Ore., www.timberprocessingandenergyexpo.com

NOVEMBER

- **10-12** APA Annual Meeting and Info Fair, Amelia Island, Fla., www.apawood.org
- **14-16** USGBC Greenbuild International Conference & Expo, San Francisco, Calif., www.greenbuildexpo.org



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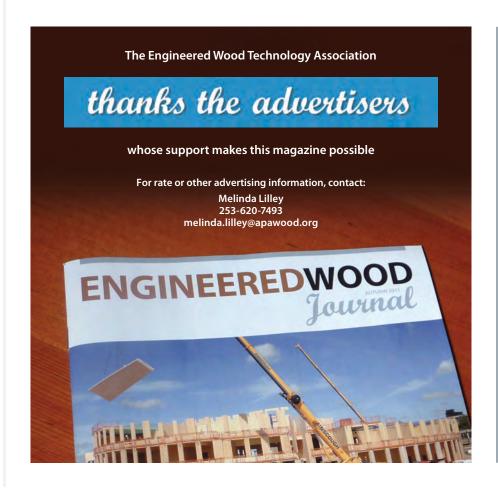
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