FALL 2009

Engineered Wood JOURNAL

BUILDING FOR BETTER TIMES
APA Annual Meeting and Info Fair Preview

BEST BEHAVIOR
Corporate Social Responsibility and the Forest Products Industry

RESOURCE SUPPLY
The Effect of the Wood-to-Electricity Industry on Wood Fiber Markets

THE OFFICIAL PUBLICATION OF THE ENGINEERED WOOD TECHNOLOGY ASSOCIATION

If you use Isoset® adhesives, Intertek has created a new fire rated assemblies listing to keep business as usual.

Isoset adhesives were recently evaluated and listed as component adhesives by Intertek. This new listing is available to I-Joist manufacturers that use Isoset adhesives. With the latest changes to the generic assemblies list (Table A.9.10.3.1.B) in the National Building Code of Canada, it is good to know that you can continue to refer customers to appropriate floor or ceiling designs that require fire rated assemblies—without interruptions to your business.

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VOLUME 12, NO. 2

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About the Cover:
A seven-story wood-frame structure was erected recently on the world's largest shake table in Japan to evaluate the performance of mid-rise wood-frame construction under seismic loads. A substantial portion of the building tested was made of APA trademarked products. More information on the test program can be found on APA's website at www.apawood.org.

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PRESS RELEASE

Power Disc*Drive*: An attraction at Ligna

Siempelkamp presents an innovation in drive technology

"Higher operating and resource efficiency" was the motto which accompanied the Siempelkamp team to Ligna 2009. This motto is reinforced by the numerous new service packages which the company has to offer. Next to the modification packages belonging to the eco*line* concept, the Krefeld specialist for machine and plant engineering presents another innovation which leads to considerable savings in new and older plants: the Power Disc*Drive*.

With the development of this innovation in drive technology Siempelkamp has set an important milestone in the industry. "The Power Disc*Drive* is our answer to the need for more resource efficient production. The drive is characterized by a higher degree of efficiency in all load situations, universal applicability and a long lifespan," explains Heinz Classen, Managing Director of Siempelkamp Maschinen - und Anlagenbau GmbH & Co. KG.

Higher degree of efficiency – a drive system for all ContiRolls®

Developed from the linear drive, the new Power Disc*Drive* technology is soon exclusively available for Siempelkamp ContiRoll® lines. This drive has a considerably higher degree of efficiency even at partial loads. Thus, it saves energy. A low number of revolutions and fewer moving parts result in little wear and increase the line availability considerably. The drive system is based on a motor type and a gear type, a single-stage planetary drive, as well as a uniform concept for power electronics and control. The enormous advantage for the customer is the fact that the Power Disc*Drive* is a motor for all drives that no longer requires a complex and therefore expensive stockkeeping. This is especially beneficial for customers that operate several ContiRolls®. Most of the time several lines represent several different models which make different replacement parts necessary. Due to the high degree of standardization of the Power Disc*Drive* the need for stockkeeping is minimized. This is not only beneficial for customers that order new equipment but also for customers who are looking into retrofitting existing lines. The Power Disk*Drive* concept can be smoothly integrated into existing plants. The possible savings are remarkable so that even a retrofit of older lines is a profitable investment.

At Ligna the Power Disc*Drive*, Siempelkamp's new drive technology, was presented as a model. A real prototype will be installed for a Siempelkamp customer by the end of 2009.

About Siempelkamp

The Siempelkamp Group is a technology supplier operating internationally. The Group consists of three business units, the machinery and plants, the foundry, and the nuclear technology business units. As a systems supplier of press lines and complete plants for the wood-based products industry, as the world's largest hand-molding foundry producing castings with a weight of up to 300 t (330 US tons), and as the service provider and supplier of CASTOR® containers for the nuclear industry, the company is internationally recognized. The Group had a total sales volume of 502 million Euros in 2008 and employed a total of 2,745 people.

Siempelkamp

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Prime Lines

What Are You Doing?

One of the luxuries of growing old, I suppose, is that there seems to be less urgency to keep up with the new.

Take Twitter, for example. As an AARP-eligible editor and communicator, I take a sort of academic interest in the Twitter phenomenon as the latest new thing in this rapidly evolving era of "new media"—blogging, wikis, podcasting, Facebook, Real Simple Syndication, etc., etc.

But I just can't get too excited yet about Twitter, which is being touted as the greatest "social media" innovation since the telegraph. I mean, why would anyone want to know that I'm on my way to the grocery store? And there must be a better way to market or promote something, right?

Twitter itself anticipates my skepticism on its website. "Isn't Twitter just too much information?" it asks. "No," it answers. "Twitter solves information overload by changing expectations traditionally associated with online communication. At Twitter, we ask one question, 'What are you doing?' The answers to this question are for the most part rhetorical."

Sorry, could you explain that to me again, please?

This may be short-sighted on my part. There were some who said at the time of its emergence that the World Wide Web was itself a not very useful passing fancy that diverted attention from more important tasks. That view, of course, was overthrown by history. The lesson here: Don't be too quick to dismiss the significance and durability of the new just because its new. Some of this social media stuff will likely prove to be as ubiquitous and irrevocable as e-mail and websites have become.

Still, there seems to be a case here — speaking now in terms of business communication — for a prove-its-value-to-me approach. In the case of Twitter, for example, only 8 percent of advertisers and consumers to date think it is a "very effective" promotion tool, according to research conducted by LinkedIn Research Network and Harris Interactive. And University of California Irvine Assistant Professor Don Patterson notes in a recent article in *TechNewsWorld* that Twitter's rapid growth and resulting expenses might require that it drastically change its core function in order to remain viable, which could impact its value to the relatively small number who use Twitter to promote.

Larry Weintraub, cofounder and CEO of Fanscape, a digital marketing firm, defends Twitter as just one of many useful social media tools. But he also says in the same *TechNewsWorld* article cited above that it "will most likely be replaced by something else in a matter of months or years. That is how social media works. What is hot today is replaced by something tomorrow."

I doubt that will assuage *Chicago Tribune* columnist Bob Verdi, who recently chided Twitter as "an infernal blight on humanity that exemplifies the dumbing down of America, where reading a book is dismissed as obsolete and tantamount to grabbing a rotary pay phone to conduct an actual conversation." Bob sounds like he's of my generation.

Meanwhile, an increasing number of metropolitan newspapers, magazines and other traditional forms of so-called "industrial media" are dying. That's due in part to the economic conditions of the past couple of years, which have dried up advertising revenue. But those traditional business models have a deeper systemic problem on their hands — they can't compete with all of the innovative and increasingly accepted and adopted forms of the new media. Cases in point: Craigslist vs. newspaper classifieds. Wikipedia vs. the encylopedia. Kindle vs. the brick and mortar book store. Politico.com vs. your daily newspaper's op-ed pages.

There's a lot of hype in some professional communications circles about the importance and staying power of social media in business applications. On the other hand, dismissing it outright and in general is probably not a good bet.

As for Twitter in particular, I still don't get it. Maybe it's my age.

Jack Merry

Industry Watch

Federal Court Dismisses SLA-Related Suit by Environmental Groups

U.S. District Judge Richard Jones has dismissed a suit brought against the Office of the U.S. Trade Representative and other federal agencies that challenged the legality of a provision of the 2006 U.S.-Canada Softwood Lumber Agreement (SLA) that earmarked some settlement funds to two U.S. organizations. The settlement awarded grants to the U.S. Endowment for Forestry and Communities (USEFC) and the American Forest Foundation (AFF) for delivery of "meritorious initiatives" in support of timber-dependent communities, sustainable forestry and other programs.

Judge Jones, in a ruling issued in June, found that the plaintiff groups had no legal standing nor credible claims that they had suffered injury as a result of the agreement.

The groups had tried to argue that settlement funds given under terms of the agreement to USEFC and AFF were an illegal subsidy of the forestry industry and should have gone instead into the U.S. Treasury for distribution by Congress.

GBI® and AIA Team Up to Promote Sustainability

The Green Building Initiative® (GBI) and the American Institute of Architects (AIA) have signed a memorandum of understanding pledging to work together to promote the design and construction of energy-efficient and environmentally responsible buildings.

Among other things, the agreement calls for the two organizations to promote the design of buildings that are energy efficient and environmentally responsible, offer educational opportunities that include content on life cycle assessment and GBI's Green Globes program, and encourage or undertake research to identify strategies for specific economic and environmental performance outcomes for green buildings.

"The GBI's engagement in life cycle assessment and promotion of post-construction third party review in Green Globes illustrates GBI's commitment to the creation of high-performance buildings and supports the role of the architect in creating them," said AIA Executive Vice President and CEO Chris McEntee. "We look forward to working with GBI on our common goal of reaching carbon neutral buildings by 2030," he said.

Industry-wide Green Promotion Plan in Development

A long-term and broad-based industry strategic plan to advance green marketing opportunities for wood products is in the early stages of development under the guidance of a Green Opportunity Task Group chaired by APA President Dennis Hardman.

The task group, which represents green science, the policy sector and wood product marketing interests, met earlier this year in Chicago to review a plan outline. It also has retained Bruce Anderson of Anderson Insight, an Ottawa-based market and opinion research firm, to help develop and execute the plan.

The idea for a comprehensive wood industry green building strategy came out of a workshop sponsored by the USDA Forest Products Laboratory and organized by APA. Seed money for the project has been volunteered or is under consideration by several industry organizations.

Concrete Industry Groups Unite in Sustainability Initiative

Several concrete industry organizations have signed a memorandum of understanding to align their sustainable development activities.

The groups include the Portland Cement Association, National Ready Mixed Concrete Association, American Concrete Institute, Concrete Reinforcing Steel Institute, National Concrete Masonry Association and Precast/Prestressed Concrete Institute.

The agreement aligns all the groups with the goal of providing advocacy, technology and educational resources to convey the social value of concrete structures, Concrete Construction News Service reported.

Cement production accounts for 5 percent or more of human-caused carbon dioxide emissions worldwide.

WPC-Sponsored Market Research Projects Completed

The results of four market research projects sponsored by the Wood Products Council (WPC) and managed by APA were published recently and are now available free of charge at www.apawood.org/WoodProductsCouncil/. The reports include:

- Wood Used in Residential Repair and Remodeling, U.S. and Canada, 2006.
- Wood Used in New Residential Construction, U.S. and Canada, 2006.
- U.S. Home Builder Perceptions of Wood and Non-Wood Products, 2008.
- U.S. Home Owner Perceptions of Wood and Non-Wood Products, 2008.

The first two reports are updates of past reports published in 2003 and earlier. The research was funded by the Binational Softwood Lumber Council with additional support from the Engineered Wood Technology Association and the U.S. Forest Service.

Hatton Brown Launches Bioenergy Magazine

Hatton-Brown Publishers, Inc., publisher of *Panel World* and other industry trade magazines, has launched *Wood Bioenergy*, a 23,000-circulation magazine covering the emerging wood bioenergy industry.

The publication focuses on three main segments of the wood-based energy industry—fuel pellets, power generation and cellulose ethanol—while closely following feedstock procurement strategies, in-woods harvesting and plant production technologies for each. The magazine will be published semi-annually this year, with increased frequency possible in 2010. *Wood Bioenergy* is free to qualified readers in the U.S.

More information can be found at www.woodbioenergymagazine.com.

OSB-Related Technology Patent Issued to University of Maine Researchers

Researchers at the University of Maine's AEWC Advanced Structures and Composites Center were recently issued a patent for technology that they say dramatically improves the performance of oriented strand board (OSB) under severe weather and high moisture conditions.

The new technology, according to the University, increases OSB's resistance to high winds and earthquakes while also hindering water absorption and panel swelling.

Professors Douglas Gardner and Stephen Shaler are the lead inventors on the patent. Post doctoral research associates Ciprian Pirvu, Lech Muszynski and Jungil Son also worked at AEWC when the initial work for the patent was done from 2001 to 2003.

Located in Orono, Maine, the Advanced Structures and Composites Center houses laboratories for composite materials manufacturing science, resin infusion, polymer/interface science, environmental-durability testing, mechanical testing, nondestructive evaluation (NDE), advanced microscopy and large-scale multidegree-of-freedom static and dynamic structural testing. It also houses two pilot plants—one for composites extrusion and the other for strand composites.

The Center can be contacted at contactaewc@umit.maine.edu.

Plywood Pioneers Change Name, Initiate Member Recruitment Drive

The Plywood Pioneers Association (PPA) is changing its name to PPA—Structural Wood Society and has launched an effort to increase its membership from among the ranks of current and former employees in the structural wood products industry.

Founded in 1964 as the Plywood Pioneers Association (PPA) at the suggestion of James R. Turnbull, then executive vice president of the American Plywood Association, the organization seeks to foster "the bonds of friendship and fraternalism" among members of the industry, publishes a series of historical monographs on the industry's early development and maturation, and funds university scholarships for students working toward degrees leading to forest products industry careers.

Membership is open to both active and retired representatives of companies producing any category of structural wood products, as well as to the industry's product, equipment and service suppliers and other stakeholders.

For more information or for a membership application, contact PPA at pioneers@apawood.org.

Canadian Consortium Launches Sustainability Web Portal

The Canadian Forest Industry Sustainable Building Coalition, a consortium of wood products industry organizations, has launched a web portal dedicated to advancing understanding of the sustainability and environmental merits of wood products.

Called Planet Friendly Canada (http://planetfriendlycanada.com), the portal serves as an information hub for architects and engineers, policy and decision makers, wood product buyers, media, teachers and students, and the general public.

Participating sponsors include the Canadian Wood Council, Council of Forest Industries of British Columbia, Forest Products Association of Canada, Wood Promotion Network and WoodWorks, among many others.

Fall Forecast Puts Housing Starts at 600,000 in 2009, Up 24 Percent in 2010

U.S. housing starts, including manufactured homes, are expected to total 600,000 this year and to rise 24 percent to 745,000 in 2010 under APA's recently released annual fall forecast.

The latest housing forecast gives a slightly improved picture from the association's spring forecast, which was made in the midst of the housing market freefall and put estimated starts at just 540,000 for the year.

The forecast is for U.S. and Canadian structural wood panel production to total 24.6 billion square feet this year and to rise to 27.1 billion feet in 2010.

The outlook, which covers the period 2009-2013, includes forecast assumptions and product demand predictions for the residential construction, nonresidential construction, remodeling, industrial and export markets. The complete forecast is available to APA members in the members-only section of the APA website at www.apawood.org.

APA-ICC Agreement Fast Tracks Evaluation Service Reports

APA has signed an agreement with the International Code Council Evaluation Service (ICC-ES) to establish protocols that will accelerate completion of Evaluation Service Reports (ESR). Under the agreement, APA and ICC-ES will work together to reduce the time to complete report evaluations. The streamlined effort could save APA member manufacturers as much as six months in the process of obtaining a new or revised ICC-ES report.

The protocols formalize and assign time frames to good working practices that have been in place for many years between the two organizations. The protocols apply to I-joists under AC 14 and to structural composite lumber (SCL) under AC 47, but ICC-ES and APA will work to extend the agreement to other products as the need arises.

The fast-track protocols apply only to requests submitted through APA and do not apply to submissions that come directly from the manufacturer.

Effect of Federal Stimulus on Wood Product Demand Analyzed in APA Report

Home buyer tax credits are likely to have the biggest positive impact on demand for wood products under the various stimulus provisions of the American Recovery and Reinvestment Bill of 2009 (AARA), according to a recent APA analysis of the bill.

The home buyer tax credit, which provides an $8,000 refundable credit for all homes bought by first-time home buyers between January 1, 2009, and December 1, 2009, could stimulate the purchase of more than 1 million existing and new homes, according to the analysis. Assuming 25 percent of the transactions resulted in new starts in 2009 and 2010, 3 billion or more square feet of structural wood panel demand might be generated.

Spending on transportation infrastructure also could generate substantial demand for concrete form panels and related wood supports for concrete forming. The analysis is less optimistic, however, about the positive impact of AARA on wood product demand in other sectors, such as education, health care, community development, and energy and the environment.

The report, titled Government Relief and Stimulus, is available to APA members from the members-only section of the APA website.

SPC Training Modules Now Available on Website

Statistical process control (SPC) training modules have been developed and are now posted in the members-only section of the APA website at www.apawood.org.

Developed in response to requests from members of the APA Technical and Quality Services Advisory Committees, the current series addresses test sample populations, measures of central tendency, variability and graphical representations of variability for both structural panels and wood I-joists/SCL. Each module is a PowerPoint presentation. Additional modules on control charts and process capability for structural panels and glulam beam test properties are under development.

APA I-joist/LVL Committee Chairman Joe Kaiserlik, Georgia-Pacific Wood Products LLC, coordinated producer input and assisted APA staff in the development of the training tools.

APA Recognized as WUI Inspection Agency in California

APA has gained recognition as an inspection agency under California's State Fire Marshall Standard for exterior siding and sheathing for Wildland Urban Interface (WUI) areas.

As an approved inspection agency, APA audits can fulfill the state's requirements for third-party inspection to assure that products produced with the State Fire Marshall seal are consistent with the approved WUI listings. Those products must have been qualified by fire testing at a state-approved fire testing center.

APA's Technical and Quality Services staff can provide guidance on testing siding products and the follow up inspection procedures.

Gulf Coast Market Development Team Expanded to Five

APA's team of engineered wood specialists assigned to the Association's Gulf Coast wood promotion program was recently expanded.

Joining Bob Clark, who oversees the regional effort, are Bruce Cordova, Houston, Texas; Paul DiGiorgio, Central Gulf; C.W. Macomber, northern Florida; and Stan Smith, Atlanta, Georgia and Charlotte, North Carolina.

The program focuses on promoting raised wood floors and wood wall systems to builders, designers, code officials and other professionals. Activities include education and training events, research on cost-effective construction methods, demonstration house projects and development of publications and web-based information.

Engineered Wood Journal Now Available by E-Mail

The *Engineered Wood Journal*, published twice annually by the Engineered Wood Technology Association (EWTA) and distributed by mail free of charge to engineered wood products industry representatives throughout the United States and Canada, is now also available by e-mail.

Recipients of the print edition who do not receive the e-mail version because their e-mail addresses are not in the magazine's recipient database can sign up for electronic delivery. Simply send your name and e-mail address to kim.sivertsen@apawood.org. E-mail edition recipients can also opt out, of course, if they wish.

The electronic edition features the entire content of the print version, provides navigational aids and includes a list of advertisers with links to their websites, thus providing additional reach and value to advertisers at no additional cost.

The *Engineered Wood Journal* is published for EWTA, APA's related nonprofit supplier organization, by Naylor LLC.

Work Progressing on ANSI Rim Board Standard

Work is progressing on a new American National Standards Institute (ANSI) consensus standard for rim board under APA's recognition as an (ANSI) accredited standards developer.

The standard, to be based on APA's *Performance Standard for APA EWS Rim Boards, PRR-401*, is being developed by a committee of stakeholders, including manufacturers, distributors, designers, end users and building code regulators.

APA utilized its ANSI accreditation to spearhead development of a new engineered wood siding standard (*PRP-210*), recently published, and is also working on development of a national consensus standard for structural insulated panels in cooperation with the Structural Insulated Panel Association (SIPA). More information can be found on APA's Standards Development page at www.apawood.org/standards.

EWTA News Notes

Advisory Committee Vice Chair Tim Ayers Retires

Tim Ayers, technical services manager at Willamette Valley Company and longtime member of the EWTA Advisory Committee, including several years as vice chairman, retired recently. He will be succeeded on the committee by Tony Vuksich, vice president at Willamette Valley Company.

A new vice chairman will be elected at the EWTA Advisory Committee meeting to be held in November in conjunction with the APA annual meeting. "Tim has been a tremendous asset to EWTA and hence to APA over the years, and his counsel and talents will be missed," said APA President Dennis Hardman. "We wish him the best in retirement."

TurboSonic Signs Marketing Agreement for VOC Control Technology

TurboSonic Technologies Inc. (www.turbosonic.com) has announced the signing of a worldwide exclusive sales and marketing agreement to promote the patented catalytic gas treatment (CGT) technology developed by Quebec-based PROCD Groupe Conseil Inc.

TurboSonic's proprietary clean air technology will be integrated with PROCD's CGT technology for use by building products and other industries requiring VOC control.

"We believe that this patented technology offers users the potential for a return on investment from fuel savings alone compared with traditional technology and will qualify for carbon credits under proposed cap-and-trade legislation, as well as provide significant environmental benefits," said TurboSonic CEO Edward Spink.

TurboSonic also announced recently that it was assessed and certified as meeting the requirements of ISO 9001:2008 for design, engineering, project management and servicing air pollution control systems.

"ISO certification qualifies TurboSonic to supply international projects under demanding quality standards, opening a significant market opportunity" for the company, Spink said.

Arclin Reaches Agreement in Principle with Key Lenders to Restructure Debt

Arclin (www.arclin.com), a privately held provider of bonding and surfacing solutions, announced in July that it has reached an agreement in principle with certain of its key senior lenders on the terms of a financial restructuring to strengthen the company's balance sheet and enhance its flexibility.

Under terms of the agreement, Arclin's funded indebtedness will be reduced from U.S. $234 million to U.S. $60 million, the company said in a news release. A post-petition financing facility of U.S. $25 million is also part of the financial restructuring.

"We look forward to working together with all of our stakeholders to complete a successful financial restructuring," said Arclin President and CEO Claudio D'Ambrosio. "Arclin remains committed to providing our customers with innovative bonding and surfacing solutions for today's building and construction, engineered materials and natural resource markets," he said.

The company has established a toll-free restructuring information hotline for interested parties at 866-967-1787 in the United States and at 888-802-3216 in Canada. Information also is available at www.ey.com/ca/arclin.com and www.kccllc.net/arclin.

Samuel Manu-Tech Announces Acquisition of Investment in Joint Venture

Samuel Manu-Tech Inc. announced in July that it had signed a letter of intent with Sekisui Jushi America Inc. to acquire their 50 percent interest in Samuel/Sekisui Jushi Strapping LLC. The joint venture company is a market leader in the manufacture of polypropylene strapping products.

"The strategic alliance with Sekisui Jushi, which was established in 2003, has played an important role in maintaining the Samuel Strapping Systems Group (www.samuelstrapping.com) as a leader in the supply of diversified industrial packaging products and systems," Samuel Manu-Tech said in a news release. "Recently, however, Sekisui Jushi has decided to dedicate its efforts to its other business segments abroad…and henceforth, Samuel Strapping will operate the Samuel/Sekisui business as a wholly owned subsidiary."

Flamex Water Mist System Receives FM Global Certification

Flamex Inc. (www.flamex.com) and its parent company, Minimax GmbH & Co. KG, announced recently that the company's Minifog water mist system has received FM Global certification for the protection of continuous wood board presses. It is the only system of its type to have gained the distinction, the company said.

The Minifog system offers the advantage of being able to rapidly detect a fire in its early stages and suppress it with a water mist in order to minimize damage to the press and attenuate any resulting downtime, a company news release said.

"Flamex trusts the FM Global approval will increase the visibility of this technology among the loss control community and further its acceptance as an important and viable safeguard for this specific fire hazard," the release noted.

Stantec Celebrates 30th Anniversary of its Composite Panel Products Group

Stantec (www.stantec.com) is celebrating the 30th anniversary of the company's Composite Panel Products (CPP) Group.

"Our group has had the opportunity to work with many wonderful clients on many exciting projects around the world," said CPP Projects Manager Stephen Fyffe. "As we enter the next phase of our evolution under the leadership of Jeff Foreman, we are working to find ways to further reduce operating costs of mills through intelligent design, application of best available technologies and integrated energy management."

EWTA News Notes

Based in Fredericton, New Brunswick, Canada, Stantec provides professional consulting services in planning, engineering, architecture, interior design, landscape architecture, surveying, environmental sciences, project management and project economics for infrastructure and facilities projects.

BASF Reorganizes Petrochemicals Division

BASF has announced reorganization of its Petrochemicals division, effective July 1, in order "to focus even more closely on our customers within their respective regional markets and to enhance efficiency and flexibility," said Dr. Albert Heuser, president of the Petrochemicals division.

The reorganization will reduce the number of business units from six to four. All business of the Petrochemicals division in North America will be consolidated in the business unit Petrochemicals North America, headed by Peter Cella.

Bio-Reaction Industries Receives Technology Award

Bio-Reaction Industries LLC (BRI) has received the 2008 Gold Medal in Business Achievement for Technology and Special Services by the *Environmental Business Journal*, a leading newsletter for the environmental industry that provides competitive strategies, new business opportunities and up-to-date market trends and data.

"We are pleased to be recognized by the *Environmental Business Journal*," said BRI President Karl Mundorff. "It shows the commitment our industrial customers are making to address energy usage and climate change."

BRI produces air pollution control systems that utilize microbes to digest industrial pollutants and odors.

Hexion Announces Resins and Coatings Operations Changes

Hexion Specialty Chemicals has announced that it is realigning its North American composite resins and coatings manufacturing operations to enhance service to customers while improving efficiency and managing costs. As part of the realignment, Hexion will be modifying its manufacturing and distribution operations in Lynwood, Calif. Its plant in Carpentersville, Ill. will be structured to focus on producing coatings and other specialty products. Production of base composite resins and certain coatings currently made at these locations will be transferred to Hexion plants in Roebuck, S.C.; Ennis, Texas; and Forest Park, Ga., which currently make similar composite resins and coatings products.

The company also recently announced the business will move its customer service group to existing centers in Gahanna, Ohio, and Springfield, Ore., to further enhance its operations.

"These changes will enable Hexion to simplify our operations and improve overall end-to-end service to our customers," said Robert Nosal, Vice President, Global Dispersions for Hexion. Nosal noted that the changes will not interrupt Hexion's operations or services and that the transition should be completed by the end of the first quarter of 2010.

MEGTEC Purchases Intellectual Property of Ross Air Systems

MEGTEC Systems announced recently that it had purchased the intellectual property of the former Ross Air Systems Inc., whose assets were liquidated under a Chapter 7 liquidation filing late last year.

Ross Air Systems manufactured complete web process lines, including industrial dryers and ovens, coaters, material handling equipment, air pollution control and heat recovery equipment. MEGTEC is now supporting former Ross Air Systems' customers with services, spare parts and engineering services. Other than intellectual property, no other Ross Air assets or liabilities were part of the purchase.

CONGRATULATIONS!

2008 APA Safety and Health Award Winners

RoyOMartin, Alexandria, La., has won the Innovation in Safety Award, while Anthony Forest Products Company, El Dorado, Ark.; and LP, Nashville, Tenn., each earned Safest Company Awards in their respective categories in the latest and newly reorganized Safety and Health Awards Program sponsored annually by APA — The Engineered Wood Association for the structural wood panel and engineered wood products industry.

A total of 19 mills representing five APA member companies — LP, Georgia-Pacific Wood Products LLC, Norbord, Anthony Forest Products Company and Roseburg Forest Products Company — also earned awards in various other categories of the 2008 program.

Begun in 1982, the awards program honors the managements and employees of companies and mills with the lowest severity-weighted incidence rates based on guidelines established by the U.S. Occupational Safety and Health Administration (OSHA).

The program was substantially modified last year by an APA Safety Awards Program Standing Committee with the purpose of elevating the program's prestige within the industry, broadening recognition of the annual award winners and ultimately encouraging operational excellence and reduced injury and illness rates year over year. The Committee is chaired by APA Vice Chairman Jeff Wagner, LP, and comprised of leading APA member company safety professionals, including Christine Alford, Hood Industries, Inc.; Mark DiCarlo, RoyOMartin; Keith Harned, LP; Blu Santee, Plum Creek; Bonnie Schwartz, Georgia-Pacific Wood Products LLC; and Pat Wright, Roseburg Forest Products Company.

The program employs a Weighted Incident Rate (WIR) that is calculated using both the number and severity of recordable incidents. Since 2008 was the first year that WIR was used, awards and reports for 2008 also show Total Incident Rate (TIR), the measure used in previous years.

"The inaugural year of the revamped APA Safety and Health Awards has by all measures been a tremendous success," said Standing Committee Chairman Wagner, who was instrumental in spearheading the effort to elevate and improve the annual program. Some 90 APA member structural wood panel and engineered wood product facilities in the United States, Canada and abroad participated in the 2008 program. Sixteen mills achieved a zero incident rate for the year.

RoyOMartin was judged by the Standing Committee to have earned the Innovation in Safety Award for its Winning with Wellness Program, which encouraged staff behaviors that contributed to improved workplace safety and wellness goals, as reflected in the company's reduced incidence rates. Criteria for the award include demonstration that the innovation reduced occupational injuries or illnesses and that the technique or program be applicable across the industry. The innovation entry can be submitted by a mill, a group of mills or an entire company.

Anthony Forest Products Company received the Safest Company Award for companies with three or fewer APA member mills, having recorded both a zero average Weighted Incident Rate (WIR) and a zero average Total Incident Rate (TIR) for 2008. LP, meanwhile, earned the Safest Company Award in the category of companies with four or more member mills. The company's 2008 average WIR and TIR were just 4.69 and 0.86, respectively.

In the newly recognized Safety Improvement Award category, Norbord's oriented strand board mill in La Sarre, Quebec, took the prize in Division I for mills with less than 400,000 hours worked. The La Sarre facility recorded zero incidents in 2008 for a 100 percent improvement rate. In Division II, for mills with more than 400,000 hours worked, the winner was Georgia-Pacific Wood Products' Warm Springs, Ga., plywood mill, which posted a 93.7 percent incident rate improvement.

LP mills earned the first, second and third place awards in Division I of the Honor Roll category for mills with fewer than 400,000 hours worked, while Georgia-Pacific facilities took the top three Honor Roll awards for mills with more than 400,000 hours worked. LP and Georgia-Pacific mills also took top honors in their respective Three-Year Safety Award categories for the period 2006-2008.

While the program awards are limited to APA members, data is collected from both member and non-member mills in order to provide a broad base industry performance benchmark. Approximately 115 mills reported data for 2008. The average Total Incident Rate among those mills was 1.99.

Award plaques will be presented to the winning mills by APA President Dennis Hardman, Quality Services Director Steve Zylkowski and/or other APA management staff. The winning facilities and companies also will be recognized and their safety accomplishments celebrated during the Chairman's Dinner at APA's annual meeting in November on Amelia Island, Fla.

SAFEST COMPANY AWARDS

	Average WIR	Average TIR
Anthony Forest Products Company (Companies with three or fewer member mills)	0.00	0.00
LP (Companies with four or more member mills)	4.69	0.86

INNOVATION IN SAFETY AWARD

RoyOMartin
Winning with Wellness Program

SAFETY IMPROVEMENT AWARDS

Division I (Less Than 400,000 Hours)			
	2008 WIR	**2007 WIR**	**2006 WIR**
Norbord La Sarre, Quebec **100% Improvement**	0.00	16.15	38.86
	2008 TIR 0.00	**2007 TIR** 4.21	**2006 TIR** 5.18
Division II (Over 400,000 Hours)			
	2008 WIR	**2007 WIR**	**2006 WIR**
Georgia-Pacific Wood Products LLC Warm Springs, Georgia **93.69% Improvement**	0.38	5.65	6.06
	2008 TIR 0.38	**2007 TIR** 0.57	**2006 TIR** 1.65

ANNUAL SAFETY AND HEALTH HONOR ROLL

Division I (Less Than 400,000 Hours)				
		Hours	**WIR**	**TIR**
1st Place	**LP** Carthage, Texas	340,794	0.00	0.00
2nd Place	**Louisiana-Pacific Chile S.A.** Panguipulli, Chile	337,343	0.00	0.00
3rd Place	**LP** Sagola, Michigan	312,821	0.00	0.00
Division II (More Than 400,000 Hours)				
		Hours	**WIR**	**TIR**
1st Place	**Georgia-Pacific Wood Products LLC** Emporia, Virginia	831,718	0.00	0.00
2nd Place	**Georgia-Pacific Wood Products LLC** Cleveland, Texas	784,717	0.25	0.25
3rd Place	**Georgia-Pacific Wood Products LLC** Warm Springs, Georgia	523,391	0.38	0.38

3-YEAR SAFETY AWARDS (2008 - 2006)

Division I (Less Than 400,000 Hours)			
	Avg. Hours	**Avg. WIR**	**Avg. TIR**
LP Athens, Georgia	290,033	0.00	0.00
Division II (More Than 400,000 Hours)			
Georgia-Pacific Wood Products LLC Madison, Georgia	890,684	1.13	0.23

INCIDENT-FREE HONOR SOCIETY

	Hours	**WIR**	**TIR**
Georgia-Pacific Wood Products LLC Emporia, Virginia	831,718	0.00	0.00
LP Carthage, Texas	340,794	0.00	0.00
Louisiana-Pacific Chile S.A. Panguipulli, Chile	337,343	0.00	0.00
LP Sagola, Michigan	312,821	0.00	0.00
LP Roxboro, North Carolina	302,181	0.00	0.00
Louisiana-Pacific Chile S.A. Lautaro, Chile	273,153	0.00	0.00
Georgia-Pacific Wood Products LLC Duck Hill, Mississippi	270,748	0.00	0.00
LP Wilmington, North Carolina	268,330	0.00	0.00
Norbord Guntown, Mississippi	258,948	0.00	0.00
LP Tomahawk, Wisconsin	256,226	0.00	0.00
LP Athens, Georgia	229,177	0.00	0.00
Norbord La Sarre, Quebec	217,597	0.00	0.00
Roseburg Forest Products Co. Riddle, Oregon	214,636	0.00	0.00
Anthony Forest Products Company El Dorado, Arkansas	156,918	0.00	0.00
Georgia-Pacific Wood Products LLC Ocala, Florida	155,718	0.00	0.00
Anthony Forest Products Company Washington, Georgia	110,953	0.00	0.00

APA Annual Meeting and Info Fair Preview

Ritz-Carlton Amelia Island
Amelia Island, Florida
November 14-16, 2009

John Sununu, former U.S. senator from New Hampshire and a member of the Troubled Asset Relief Program (TARP) panel, will discuss the "American Recovery and Reinvestment Act and its Impact on the Construction Markets" on Nov. 16 during the general session of APA's annual meeting on Amelia Island, Fla.

Known as a strong fiscal conservative, Sununu is an author of legislation reforming the regulation of financial institutions and currently serves as one of five panel members responsible for the oversight of TARP funds. He has developed numerous proposals for regulatory reform, mortgage insurance and national insurance oversight.

The son of John Sununu, Sr., the former chief of staff to President H.W. Bush and former governor of New Hampshire, Sununu served three terms in the U.S. House of Representatives and for six years as the youngest member of the U.S. Senate, where he was a member of the Commerce, Finance, Banking and Foreign Relations Committees.

Sununu's address at the general session will be a key feature of a meeting that has as its theme "Building for Better Times" — an outlook designed to help attendees prepare for improved economic conditions and the recovery of the housing and other end-use markets.

Also appearing at the meeting will be Martin Rollins, president of H.M. Rollins Company Inc., a Gulfport, Miss.-based engineering services firm, and Avrim Lazar, president of the Forest Products Association of Canada (FPAC). Rollins will lead a roundtable, "The Carbon Conundrum," dealing with the impact of greenhouse gas emissions regulations on the engineered wood products industry, while Lazar will present market research findings at the Marketing Advisory Committee meeting related to a proposed industrywide initiative to position forest products as the superior environmental choice.

The three-day annual meeting also will feature the Info Fair supplier exhibition, sponsored by the Engineered Wood Technology Association; APA and EWTA committee meetings; reports by APA Chairman Mike Rehwinkel and President Dennis Hardman on the state of the industry and association; APA Safety and Health Awards Program presentations; the Chairman's Dinner; and other business, networking and social activities.

See the official meeting guide for complete information about event times and locations.

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Avrim Lazar

2009 Info Fair Exhibitors

Partial list as of August 19

Info Fair, held annually in conjunction with the APA annual meeting, is sponsored by the Engineered Wood Technology Association (EWTA), APA's related nonprofit supplier organization.

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Clearing the Air

The Use of Bio-Oxidation for Industrial Air Emissions Control

by Jim Boswell

The wood products industry began a rather arduous road to emissions control in the early 1990s with the first installation of a thermal oxidizer (an RTO) at a California MDF facility, for volatile organic compound (VOC) control.

During the ensuing years, virtually every panel board facility has had to control emissions of VOCs, and up until the last few years, always with some sort of thermal oxidizer — RTO, or a catalytic oxidizer.

The amount of natural gas that has been burned for VOC control during this time is conservatively in the billions of therms, possibly trillions. That's enough natural gas to heat hundreds of thousands of households during that period of time, not to mention the cost to the panel board industry for that natural gas.

Background

Interestingly, biofilters also were first applied to the U.S. wood panel board industry in the early to mid-1990s. Three conventional bark and wood chip biofilters were installed on an oriented strand board press in the Midwest, a wet process hardboard mill in Michigan and in a particleboard mill in Georgia. All were and are relatively successful applications and continue in operation today. In Europe, several biofilter applications were applied to the panel wood industry in the late 1990s with modest success.

The primary issue with these "conventional bark and wood chip" systems is that the beds must be replaced frequently, usually every 18 to 24 months because of channeling and compaction issues that cause operational problems, either loss of removal efficiency (channeling) or decrease in airflow (compaction). Biofilter system applications did not parallel the thermal oxidizer applications because of the generally mandated 90+ percent destruction efficiency (Dre) requirement specified in the first consent decrees associated with the U.S. Environmental Protection Agency's regulatory pursuit of the wood products industry.

Emissions of VOCs from presses could have been controlled by biofiltration, but generally not at the Dre that was mandated, and the dryer exhausts were and are too hot to be treated in a biological system without adding significant amounts of dilution air. So, for roughly 12 years, there was little or no progress on biofilter applications in the panel board industry because of the rather draconian requirement for 90+ percent Dre of the emissions stream. During that time period, more than 150 (estimated from conversations with thermal oxidizer suppliers) thermal oxidizers were installed in the industry at a capital cost of hundreds of millions of dollars and with ongoing natural gas costs of millions of dollars annually.

Current Status

With the promulgation of the Plywood and Composite Wood Product (PCWP) MACT rule, there was a greater interest in utilizing biofilters, bioscrubbers, biotrickling filters or simply some type of bio-oxidation system to provide emissions control for these largely water soluble HAP compounds. Historically, the three existing applications were already in operation, and they achieved a more-than-adequate Dre for those constituents, specifically noted by existing data on formaldehyde and methanol removal. In addition, with the price of natural gas increasing through the late 1990s and into the new century, an alternative to thermal oxidizers was being sought.

There were and still are two primary issues to be confronted when biofilter systems are used. First, there is the issue of overall VOC/THC removal when compared to thermal oxidizers, bio-oxidation systems generally being less effective. Second, the exhaust gases from most wood dryers are simply too hot for processing in a bio-oxidation system. The organisms would literally be unable to grow or killed outright by the excessive heat.

Only press emissions or ideal press and dryer combined emissions could be reasonably treated in a biological air pollution control system without having to greatly oversize the unit with dilution air or adding heat exchangers, both driving up the capital costs so as to make them unacceptable. Many companies, already with thermal oxidizers on their dryers, carefully evaluated the capital costs of the two technologies and decided that bio-systems were the preferred choice for control of the press emissions and achieving compliance with the MACT standard.

Operating Cost Estimates: (Utilities Only)

Natural Gas Usage Computations	Bio-Oxidation System	RTO
Air Stream Flow Rate (acfm)	120,000	120,000
Est. BTUs Per Hour	–	9,639,600
Annual Hours	8400	8400
Annual Therms Consumed	–	809,726
Est. Cost/Therm	$0.00	$1.10
Est. Annual Cost	–	$890,699
Electrical Usage Computations		
Est. Cost/kW-Hr.	$0.0650	$0.0650
Est. kW-Hr. Consumed (pumps, fans etc.)	1,262,000	1,262,000
Est. Annual Cost	$81,900	$81,900
Total Annual Operating Cost Estimate	**$81,900**	**$972,599**

A bio-oxidation system will operate at a rate that is *91.5%* less than a comparably sized RTO.
The annual estimated operating cost savings are *$890,699.* On a monthly basis, the operating cost savings are estimated to be *$74,000.*

Two companies, PPC and BioReaction Industries, supplied the PCWP industry with the majority of the biofilter units, approximately 20, while Tri-Mer installed three for MACT compliance. These units were brought online in 2008, and most are in operation at this time (plant shut-downs and operational curtailments have idled a few). All readily achieve compliance (or should) with the MACT regulation with substantial operating cost savings and huge reductions in green house gas (GHG) emissions when compared to thermal oxidizers.

As an example, a 120,000 acfm biofilter unit, at two-thirds the capital cost (compared to a similar RTO), will save the owner more than $900,000 annually in natural gas costs required to fire the thermal system. Electricity costs are also less because of the temperature and volume difference in the air stream that is drawn through the two units. An operating cost evaluation and a GHG comparison are provided nearby.

Bio-oxidation systems work by providing an environment for bacteria and fungi to grow and proliferate into massive biofilm and water-borne cultures that utilize the gas phase hydrocarbons (and organic particulate) as food for metabolism and growth. These systems work best at warm temperatures, 80°F to 100°F (27°C to 37°C), and relative humidity of 98 to 100 percent.

These systems are particularly suited for emission streams with relatively low concentrations of contaminates in high volumes of air. Systems rely on a humidification chamber to temper and saturate the airstream with moisture, a fixed substrate to support the biofilm and often a sump for added treatment and recirculation of water for redistribution of nutrients and organisms across all areas of the bio-oxidation system. These systems are also here for the long term, typically lasting 20 or more years with periodic maintenance and eventual bed replacement required.

Water soluble compounds, like the alcohol, methanol and the aldehyde, formaldehyde, are readily absorbed into the water contained within the system (spray, sump and surface film). Therefore, these hydrophilic compounds are readily available at the microbial surface where they are assimilated and broken down for energy, maintenance and growth, producing carbon dioxide and water vapor.

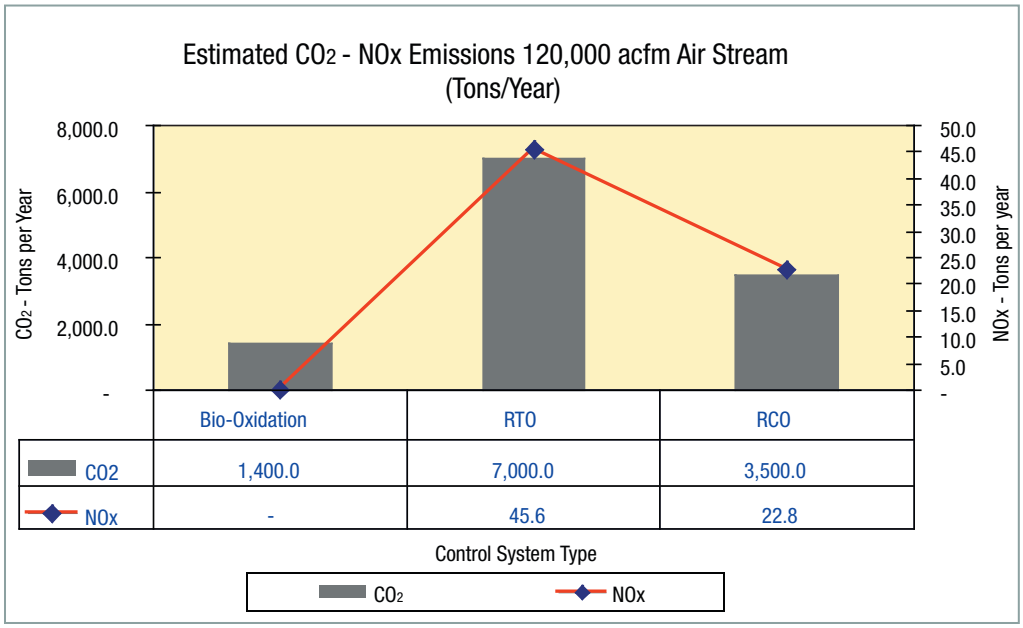
Hydrophobic compounds can also be treated effectively in a bio-oxidation system; however these compounds, such as pinenes, are not readily *ab*sorbed but may be *ad*sorbed, or collected on the surface of the microbial biomass for decomposition and absorption of constituents.

Generally, systems that are to treat air emissions with predominantly water soluble constituents can be smaller (shorter air mass retention time in the unit) than bio-oxidation systems treating air emission streams containing predominantly hydrophobic compounds. Retention times vary according to the constituents and the concentrations of compounds to be treated.

Ten-Year Cycle

Bio-oxidation System Cumulative Operating Cost	**$819,000**
RTO - Cumulative Operating Cost	**$9,725,990**
Bio-Oxidation System Savings – 10-Year Cycle	**$8,906,990**

GHG Emission Reductions



Systems must be sized to provide adequate time for decomposition of compounds and also be large enough to accommodate the growth that will occur with the specific hourly load of organic materials (e.g., food).

For a primarily water soluble constituent air emissions stream (HAP control), the system would need to have a relatively short retention time and be sized for the air volume to be treated. A similar airflow application, but designed to treat pinenes to 75 percent Dre, would need a much longer retention time to degrade those terpenes and therefore need to be almost twice the volume for the 120,000 acfm airflow.

Temperature is also a factor in getting the highest removal for hydrophobic compounds like terpenes, and a system would need to operate in the 85°F to 100°F (29.5°C - 37°C) range to do best. Systems biodegrading water soluble compounds like formaldehyde and methanol can operate at temperatures around 65°F (18°C) and above, and achieve >90 percent destruction efficiency.

Since these are what are termed mesophilic biological systems, the biomass of bacteria and fungi that they contain can biodegrade VOC and HAP compounds throughout a wide temperature range. The rate of VOC and HAP biodegradation increases geometrically as the temperature increases up to approximately 110°F (43°C).

Conclusion

With the added emphasis on greenhouse gas emission reductions, the increasingly significant role that NOx is calculated to play in ground level ozone formation, and the cost and supply issues with natural gas and fuels in general, it seems that bio-oxidation systems are destined to play a much larger role in air emissions control in the future. Just this past year, a bio-oxidation system was judged best available control technology for control of VOC emissions from a panel board press.

This precedent-setting pronouncement provides the impetus for industry to propose using bio-oxidation systems where appropriate to supplant conventional thermal oxidizers throughout the United States.

Replacing a conventional RTO with a bio-oxidation system will reduce greenhouse gas emissions by 5,000 to 6,000 tons per year (CO_2 reduction), save thousands of cubic feet of natural gas annually to heat homes and businesses and reduce NOx emissions by as much as 45 tons annually. The energy savings to individual companies can also be very significant, potentially leading to reduced consumer costs for products.

Bio-oxidation systems do not fit every application but can supply an alternative control mechanism for a significant number of new and existing air emissions sources.

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Resource Supply

The Effect of the Wood-to-Electricity Industry on Wood Fiber Markets

by Pete Stewart

In 2008, industrial production of electricity from wood (almost exclusively wood and paper products companies) amounted to 10.9 billion kilowatt hours: 8.8 billion in electricity-only facilities and 2.1 billion from combined heat and power facilities. In Oregon alone, for example, wood products companies use nearly 3 million bone dry tons of wood fiber to generate electricity or for combined heat and power applications. Wood pellets manufacturers in Oregon use more than 1 million additional tons of wood fiber, most of which are then burned to create heat and power.

What these totals tell us is that wood as a feedstock for electricity production is growing exponentially right now. The number of dedicated biomass plants that have been announced or are under construction increases every quarter. As signs emerge that the housing market is finding a bottom, and as more and more of these plants come online, competition for certain classes of wood fiber will reshape wood fiber markets.

Precipitating the growth of wood biopower are the renewable portfolio or electricity standards enacted by states. Throughout most of the country (and most of the developed world), states are setting requirements and goals for producing energy — particularly electricity — with greener and cleaner sources. Altogether, 29 U.S. states have renewable electricity standards (RES); six have renewable energy goals.

Even more significant would be the enactment of the American Clean Energy and Security Act (ACES) of 2009. Should this bill find its way to the president's desk for signature, retail electricity suppliers (those selling more than 4 million MWH to consumers annually) would be required to meet the following federal standards via a combination of renewable energy sources and energy efficiency (renewable energy must be at least three-quarters of the total):

2012-2013:	6 percent
2014-2015:	9.5 percent
2016-2017:	13 percent
2018-2019:	16.5 percent
2020-2039:	20 percent

The cap and trade provision in the bill will add further impetus to the wood-to-electricity movement.

Because there are many states in the U.S. where wood is the only significant source of renewable energy, growth in this sector will likely have a sizeable effect on the wood fiber supply chain in timber-rich areas of the country. In the South alone, if 1 percent of the electricity produced with coal were replaced by wood co-fired with coal, an additional 10 million tons of demand would be introduced into the system. A 5 percent goal would introduce 50 million additional tons of demand. This is the equivalent to one-third of the fiber market in the South today.

In addition to growing domestic demand, European countries have been tasked via the Kyoto Protocols to meet green energy targets of 20 percent by 2020. To meet this 20 x 20 goal, the U.K. — only the U. K. — will need to import 12 million tons of wood fiber. If just a third of that comes from the Eastern United States, then eight to 12 new pellet plants will need to be built to supply this demand — primarily from co-firing facilities. In July 2009, MGT Power announced it is building a 295 MW dedicated biomass electricity plant in Northeast England that will source at least part of its wood chip supply from the southern United States. As more dedicated biomass plants come online, additional wood chip demand could eclipse demand for pellets.

Growth in wood's other energy application, biofuels, is more nebulous. To date, no one has proven that cellulosic ethanol is viable on a commercial scale. While the federal government continues to support research in this area, production on a scale that would impact wood fiber markets seems unlikely for the foreseeable future.

Based on our research, we think the total annual demand from bioenergy companies by 2020 will equal somewhere in the 15-25 million ton range in the U.S. South. To put this number in perspective, 180 million tons of hardwood and pine are consumed throughout the region each year. Approximately 16 million tons of pine pulpwood is used in the region each year by OSB manufacturers. The impact of bioenergy, then, will

approximate or even exceed the effect that the OSB industry has had on the market.

How quickly will this demand begin changing the supply chain? As the price forecast shows, these changes to the wood supply chain will happen gradually over the course of the next decade. The recession, the credit crunch and lower fuel prices have slowed progress that might otherwise have been more robust over the last year.

Even the government seems to have taken this into account when setting the renewable electricity standards (RES). ACES, for instance, would require 6 percent of electricity come from renewable sources or improved efficiency by the 2012-2013 timeframe. This number is roughly equivalent to the amount of electricity produced from renewables in the United States in 2008 (see Table 4). In 2009, the percentage has risen. Though overall production has decreased over the first third of the year, renewables now represent 8 percent of the total, a fact that may be attributable to state RES legislation.

Certainly, it will be the retail electricity producers who have been slow to explore their renewable options and/or in states without renewable electricity standards (RES) that will have the largest burden if the ACES passes. Because they will have to accelerate from zero to six very quickly, competition may intensify more quickly.

What effect will the growing demand from the bioenergy sector have on engineered wood manufacturers? The answer to this question will be determined by the mix of fiber that bioenergy companies use. From least expensive and most desirable to most expensive and least desirable, the three classes of wood fiber that bioenergy companies will source as feedstock include:

- ***Wood fuel or biomass.*** This category is made up of harvest residues and the bark removed from trees prior to the manufacture of wood products. Today, biomass is scarce in most of the U.S. South, not because it doesn't exist, but because it is not being removed from forests. Biomass availability is determined by harvest rates. In most states, only 2 or 3 percent of forest land is harvested per year.

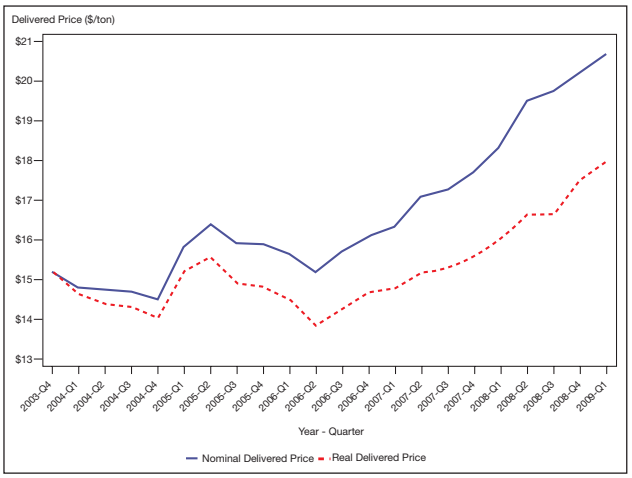
In addition, economic downturns reduce the number of harvests, a result of lower demand for lumber and other building products. Like harvest residues, the available volume of bark will be restrained whenever mills are curtailed or closed. Second, because the market for biomass is not yet stable, few in the forest products supply chain have invested in the equipment necessary to collect this material. Forest2Market's Delivered Price Benchmark currently classifies both biomass and bark as fuel wood; our data shows that prices for this material have been trending higher over the last several years (see Table 1 for the U.S. South and Table 2 for the Pacific Northwest). Because of these limitations, bioenergy companies will be driven to substitute higher classes of wood fiber in order to remain operational.

- ***Secondary chips.*** Because they are by-products of manufacturing processes, the widespread curtailment of lumber manufacturing has resulted in a decrease of this material on market. Producers that need higher quality materials will be using secondary chips in many cases, though, as they are consistent in size and free from contaminants.
- ***Primary chips.*** Despite the high cost of in-wood whole log chips and chip mill chips, bioenergy companies will compete for them for two reasons: 1) some manufacturers who need higher-quality chips will turn to chips as chip mills offer a very consistent product when it comes to size, specific gravity and other manufacturing requirements; 2) primary chips are less dependent on other manufacturing processes and as a result are less vulnerable to the ups and downs of the housing, lumber and construction markets.

Because the bulk of the competition will occur in the last two classes of fiber — primary and secondary chips — engineered products made from sawtimber, like plywood, LVL and glulam, will be affected only on the margin. Competition for peripheral resources will intensify. Loggers and truckers, for instance, will have an additional set of customers to serve, and wood products manufacturers will find their supply chain costs creeping upward as a result.

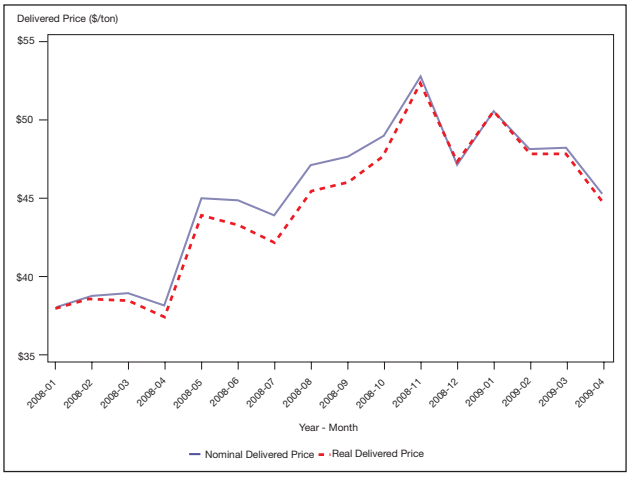
Products made from pulpwood, such as OSB and paralam, are likely to see more significant competition and therefore higher prices over time. With engineered wood products manufacturers, pulp and paper mills and bioenergy companies all competing for

Table 1: Delivered Fuelwood Price Trend – U.S. South 4Q2003 - 2Q2009



Source: Forest2Market Delivered Pricing Benchmarks

Table 2: Delivered Fuelwood Price Trend – Pacific Northwest 4Q2003 - 2Q2009



Source: Forest2Market Delivered Pricing Benchmarks

the same material, the price pressure could be significant over time. Forest2Market's 2008 study on the effects of bioenergy on the wood fiber market in the U.S. South shows in Table 3 the forecasts for pulpwood, chip and wood fuel price changes from 2008-2020.

Interestingly, the rise in the prices of products made from smaller logs as competitive pressures strengthen will make products made from larger logs more affordable. For instance, as the price gap between OSB and plywood narrows, consumers will find it easier to substitute plywood where they have been using OSB exclusively.

Ultimately, manufacturers of engineered wood products made of pulpwood should undertake a careful analysis of their supply chains. We would recommend two practical steps to help secure a supply and mitigate the effects of amplified competition. First, work now to establish strong business relations with pulpwood suppliers and loggers, especially in areas where bioenergy announcements and plans are taking shape.

Second, take a close look at the terms and conditions of supply agreements. In order to secure financing, bioenergy companies must show that 50 percent or more of their supply is under supply agreement. This means that they will be locking down supply early. In addition, they will be looking for longer term supply agreements, since that is the traditional approach in energy markets. Steps toward establishing a reputation as a preferred buyer will benefit engineered wood products companies as the supply chain undergoes sweeping changes over the next decade.

Pete Stewart is the founder, president and chief executive officer of Forest2Market (www.forest2market.com), a Charlotte, N.C.-based market price and trend information provider for the forest, wood products and bioenergy industries.

Table 3: US South Delivered Prices ($ per ton)

	2007	2008-2012	2013-2017	2018-2020
Fuel Wood	21.90	23.45	26.65	28.65
Pine Chips	32.20	36.60	39.70	43.60
Pulpwood	28.47	33.60	38.00	42.00

Table 4: Net Generation Total and from Renewable Energy Sources (Thousand Megawatt Hours)

	Total	From Renewable Energy Sources*	Percentage of Total
2007	2,016,456	105,238	5%
2008	1,994,385	123,603	6%
2009**	578,397	46,038	8%

**Wood, black liquor, other wood waste, biogenic municipal solid waste, landfill gas, sludge waste, agriculture byproducts, other biomass, geothermal, solar thermal, photovoltaic energy, and wind.

*Through April 2009

http://www.eia.doe.gov/cneaf/electricity/epm/table1_1.html#_ftn4

Source: Electric Power Monthly, Energy Information Administration

Best Behavior

Corporate Social Responsibility and the Forest Products Industry

by Eric Hansen, Xiaoou Han and Rajat Panwar

The role of business, and the way it is perceived by society, has undergone numerous changes throughout history. Over time, awareness of the impact of business and its interplay with societal and environmental concerns has emerged, along with parallel growth of socio-regulatory pressures. This evolution of business and societal concern has led business to gradually assume increased responsibility and consideration for both social and environmental issues, typically beyond what is required by legislation. This response is commonly referred to as corporate social responsibility or corporate responsibility (CR).

The concept of sustainability has now permeated society, and because the forest sector is so closely tied to a highly recognized resource that is important to the average citizen, companies have been pushed to recognize that they are responsible for more than merely providing profit to shareholders. Several multilateral organizations have tied CR to sustainable development, taking the position that companies should contribute to the objective of securing sustainable development. Many advocate the pursuit of global CR standards, yet there is also recognition that a context-specific approach is likely to be both more feasible and further-reaching. An example of context specificity is that U.S. companies generally place more emphasis on environmental issues, while companies in countries such as Brazil place more emphasis on social issues. Societal expectations of business vary from one country or location to another.

The environmental issues facing the forest industry have evolved significantly over time. For example, in the last 40 years, the main issues in the forest industry have included the following:

- 1970s – Emissions to water and air
- Mid 1980s – Recycling
- Late 1980s – Chlorine bleaching
- Early 1990s – Forestry and forest management
- Mid 1990s – Forest certification
- 21st century – Global climate change and the role of forests

Globalization, advances in communication technologies and the emergence of ethical investment opportunities all contribute to increased attention on CR. Easy access to detailed information on corporate activities has increased transparency and heightened public awareness regarding the varied impacts, both positive and negative, of companies worldwide. In turn, this awareness has aided citizens and activists seeking corporate change and boosted global discussion about CR and its adoption by companies. To varying degrees, globalization is resisted by societies concerned with the social and environmental implications of global companies. Therefore, it becomes increasingly important for organizations to proactively respond to social and environmental issues in order to ameliorate societal concerns.

Managing Responsibility

As companies have sought to more effectively manage environmental and social aspects of their operations, they have adopted tools such as the ISO 14001 environmental management standard and have begun providing annual reports to stakeholders. What was once an annual environmental report has evolved to be, in most cases, a social responsibility or sustainability report. Of the 100 largest global paper and packaging firms identified by PricewaterhouseCoopers in 2006, 61 reported on responsibility issues (PWC, 2007). Of those companies listed in 2007, there were 39 that provided separate reports focused on CR issues, and an additional 48 provided reporting via their annual report or website (PWC, 2008).

On the horizon is the ISO 26000 standard, which will provide guidance on social responsibility activities. The standard, which is scheduled to be published in late 2010, is built around seven principles of social responsibility: accountability, transparency, ethical behavior, respect for stakeholder interests, respect for the rule of law, respect for international norms of behavior and respect for human rights.

Although direct references to forestry are few, an excerpt from the text reads: "In relation to all its activities, products and services, an organization should incorporate the protection of natural habitat, wetlands, forest, wildlife corridors, protected areas and agricultural lands into the development of the built environment." This standard may become an important tool for large forest industry corporations as they implement CR activities in the same way that the ISO Environmental Management Standard has been adopted by many companies.

One way companies are attempting to be more responsible is through dictating specific activities and performance from their suppliers through purchasing policies. A common form of this is policies requiring or giving preference to certified wood products.

In the U.S. do-it-yourself sector, The Home Depot was the first major U.S. retailer to come forward with a purchasing policy that included a preference for certified forest products. Following its announcement were similar commitments from major competitors, and this trend has continued through many other sectors of the economy.

Current Forest Sector CR Research

As CR has gained traction in the business world, it has become a focus of research as well. There are a number of ongoing projects investigating various aspects of CR in the forest sector. Professor Rob Kozak and Ph.D. student Natalia Vidal at the University of British Columbia are investigating the adoption of CR practices in the forest industry, using data from companies in the United States, Canada and Brazil.

Their findings suggest that both internal and external drivers have a role in CR adoption in companies. Market trends, behavior of competing firms, stakeholder demands and the socio-political context of a firm's place of operation are some of the external drivers influencing adoption of CR. Examples of internal drivers are leadership and company culture. Company characteristics such as the organizational structure, formal processes and continuous improvement activities also influence the adoption of CR practices.

Professor Heikki Juslin and Ph.D. student Lei Wang at the University of Helsinki are examining CR opinions and attitudes of multiple stakeholders in the Chinese forest sector, with comparisons made among China, Finland and the United States. One finding is that values have significant impacts on an individual's CR perspectives. Among all respondents, satisfaction with forest industry CR performance was generally highest with respect to economic performance, and lowest with respect to environmental performance.

Recently completed research at Oregon State University compared perceptions between the citizenry of the Pacific Northwest and industry executives in the region regarding industry's social and environmental performance. Not surprisingly, citizens felt the performance of the industry was lower than that judged by executives. With respect to expected performance, citizens had significantly higher expectations than the executives themselves.

Industry executives consider industry's current performance to be significantly higher than the general public. Addressing important social and environmental issues is likely to enable a company to gain higher credibility. The differences between industry executives

CR Activity Categories and Examples

Categories	Examples
Leadership, vision and values	-Defining and setting purpose, values and vision -Translating CSR into policies and procedures, guidelines -Putting CSR into practice and being a leader
Marketplace activities	-Product responsibility -Using CSR product labeling -Ethical competition
Workforce activities	-Health, safety and wellbeing -Diversity and equality -Work and life balance
Supply chain activities	-Driving standards through the supply chain -Promoting social and economic inclusion via the supply chain -Being a fair customer
Stakeholder engagement	-Transparent reporting and communication -Mapping key stakeholders and their main concerns -Responding and managing
Community activities	-Types of community support -Giving time, money and gifts -Being a good neighbor
Environmental activities	-Resource and energy -Mitigating climate change -Transport planning

and the general public indicate that industry should not only focus on improving its performance along key social and environmental issues, but also improve its communication to the public about its performance. It is also important for industry to appreciate that the general public has higher expectations regarding industry performance than they do as company managers/owners.

In order to enjoy increased social acceptance and reputation, U.S. forest products companies should aspire to higher social and environmental performance. There were no significant differences between corporations and family-owned companies, suggesting that industry's performance is viewed as a whole and countering a common perception that family-owned companies are seen differently than corporations. As social and environmental scrutiny of the forest products industry increases, it is important for the industry to further align itself with a changing societal mandate as well as communicate its efforts more effectively.

In an ongoing OSU project, CR activities implementation by global companies is being examined. The annual/CR/sustainability reports of the top 100 global forest, paper and packaging industry companies reported by PricewaterhouseCoopers were analyzed in terms of each company's CR activities implementation. Seven categories of activities were adapted from those outlined by the Ashridge Centre for Business and Society in the United Kingdom (see the table on page 33).

The activities are implemented by the companies at different levels. Those activities that appear in reports more frequently are considered to be implemented at higher levels. Three examples of CR activities are given for each category in the table, and they are ordered according to the implementation level from relatively high to relatively low. Taking "environmental activities" as an example, resource and energy is one issue that most forest products companies take into consideration. In contrast, transport planning does not receive much attention as an environmental activity. Another example is "leadership, vision and values"; companies are doing a good job of defining and setting purpose, value and vision as well as translating CR into policies and procedures, but they are not as often putting CR into practice.

The seven categories include CR activities in economic, social and environmental areas. Among the seven groups, "environmental activities" are implemented most widely (most companies mention them). The reason for this may be that society is paying increasing attention to environmental issues, so it is critical for forest products companies to continuously address these in order to maintain a good public image.

More than half of the companies mention "workforce activities" and "leadership, vision and values" in their company reports. Around half of the companies implement "community activities." "Supply chain activities" and "stakeholder engagement" have seen very little attention. "Marketplace activities" are least commonly implemented. This may be a result of companies not associating these with corporate responsibility. For example, industry managers may associate product responsibility more with avoiding liability than with CR. It is worth noting here that one of the common reasons for companies to embrace CR is risk management, and therefore product responsibility may be considered an integral aspect of CR.

The activities identified from the company reports reflect some issues of growing importance. Climate change is becoming

a leading issue in the 21st century and as such, reducing carbon emissions and footprint are extensively mentioned in company reports. As society is paying increasing attention to the issues of global warming and climate change, industry managers and executives are beginning to take actions to respond to these societal expectations. A second emerging issue is the use of voluntary standards (e.g., ISO 14001). Standards can go beyond legislation and play an important role in terms of regulating the industry's overall CR performance. Companies are becoming more committed to aligning operations and strategies utilizing these standards.

While this project has so far looked exclusively at reporting by companies, the next stage will seek opinions/perceptions of industry managers in order to assess how innovativeness in global companies impacts the implementation of CR activities. We expect that more innovative companies are more likely to implement CR activities.

Where From Here?

Two of the most important issues in the corporate responsibility field are standardization and business benefits of adopting CR. With regard to the first, it is likely that the upcoming ISO 26000 standard may help companies develop industry benchmarks. Such standards may provide uniformity in reporting systems, making performance comparisons across companies more practical. While global comparisons may not be as feasible due to the context-specific nature of CR, comparisons among comparable contexts (e.g., United States, Canada, some parts of Europe) may be possible.

It has been a longstanding debate whether CR activities lead to increased profitability. While scholars and practitioners have divided opinions on this issue, one agreement is that only innovative CR practices lead to increased profitability. However, profitability has numerous aspects, and it is important for companies to recognize that developing a conducive business climate is essential to profitability, and therefore CR makes business sense regardless of its direct impact on the bottom line. This is especially true for forest products companies as the public scrutiny of their social and environmental performance has been intensifying.

The key to leveraging CR activities is to undertake innovative practices and find innovative ways to implement them. Companies must focus on creating social and environmental value and translating such value to their financial wellbeing. Successful companies of tomorrow will stand on social and environmental wealth that they will generate in a carbon-sensitive economic realm.

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Upcoming Events

2009

NOVEMBER

4-5 North American Building Material Distribution Association annual convention, Nashville, Tenn., 888-747-7862, www.nbmda.org

5-8 North American Wholesale Lumber Association Traders Market, Chicago, Ill., 847-870-7470, www.lumber.org

11-13 U.S. Green Building Council GreenBuild 2009, Phoenix, Az., 866-579-8413, www.greenbuildexpo.com

14-17 APA annual meeting and Info Fair supplier exhibition, Amelia Island, Fla., 253-620-7429, www.apawood.org

2010

JANUARY

19-22 International Builders Show, Las Vegas, Nev., 800-368-5242 ext. 0, www.buildersshow.com

FEBRUARY

4-6 PELICE – 2010 Panel & Engineered Lumber International Conference & Expo, Atlanta, Ga., www.pelice-expo.com

MARCH

8 Western Wood Products Association annual meeting, www2.wwpa.org

9-11 Wood Technology Clinic and Show, Portland, Ore., www.woodtechexpo.com

APRIL

19-22 Structural Insulated Panel Association annual meeting, Chicago, Ill., www.sips.org

MAY

12-14 Construction Specifications Institute Construct 2010, Philadelphia, Penn., www.constructshow.com

16-18 NAHB Green Building Conference, Raleigh, N.C., 800-368-5242, ext. 8338, www.nahb.org

20-22 Forest Products Society 64th international convention, Madison, Wis., 608-231-1361, ext. 208, www.forestprod.org

JUNE

3-5 Forest and Resources Expo, Prince George, British Columbia, 250-563-8833, www.forestexpo.bc.ca

10-12 American Institute of Architects national convention 2010, Miami, Fla., 888-538-7794, www.aia.org

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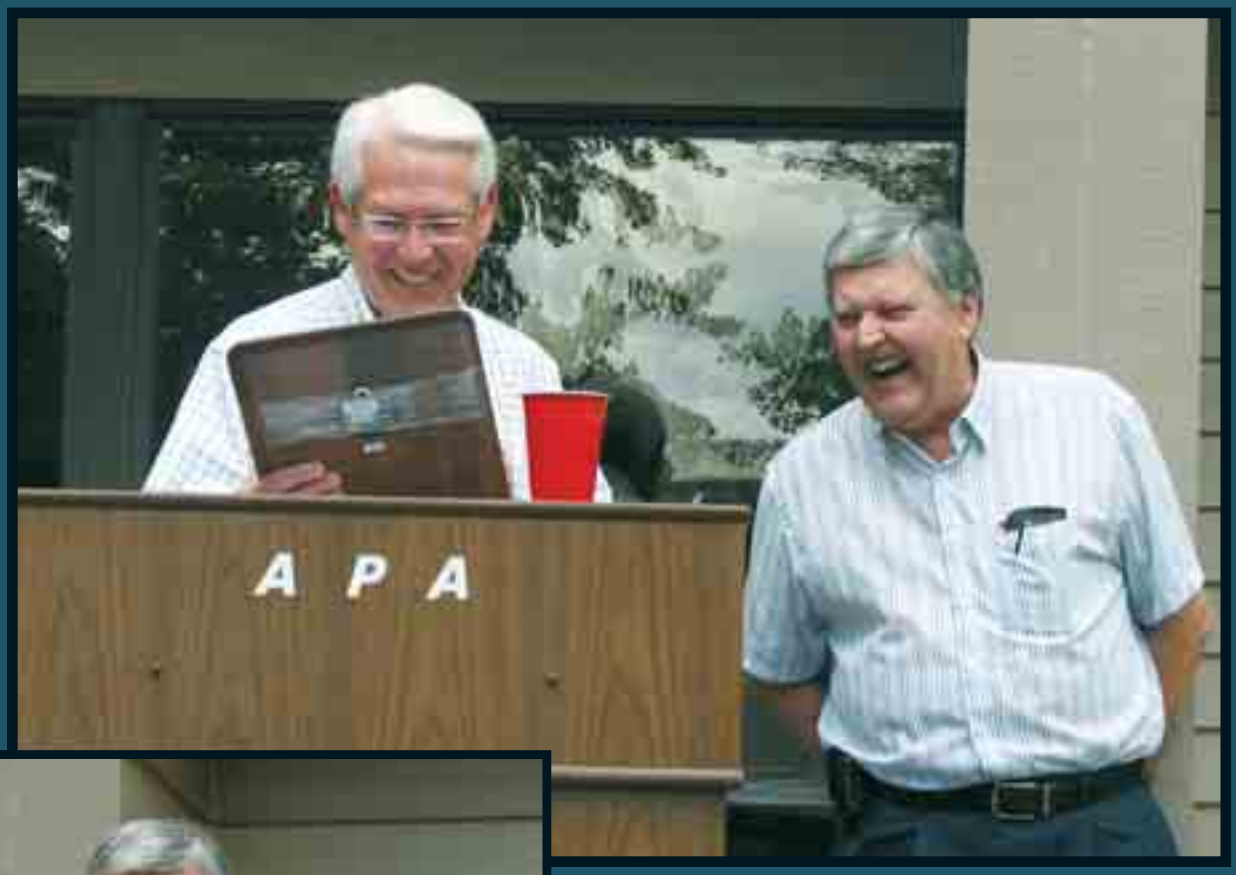

APA Vice President Tom Williamson, who retired earlier this year after 17 years with the Association and several decades in the industry, is presented a Forest Products Laboratory recognition plaque in honor of his industry contributions. The plaque was presented on behalf of FPL by APA President Dennis Hardman during an APA staff function at Association headquarters in Tacoma.

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