PROGRAM

APRIL 7-8, 2016
Omni Hotel at CNN Center
Atlanta, Georgia
Laminating lines
HPL lines
Multi-opening plywood lines
Upgrades of existing MDF, OSB, PB, plywood and short cycle lines

Contact: Larry Frazier 770-756-1309 | larry.frazier@dm-z.de | www.dieffenbacher-zaisenhausen.de
Welcome to Atlanta’s Omni Hotel at CNN Center and welcome to the fifth Panel & Engineered Lumber International Conference & Expo (PELICE), again hosted by Panel World magazine and Georgia Research Institute.

As we write this, our latest housing report from APA—The Engineered Wood Assn. tells us that U.S. housing starts through February ran at an annual rate of nearly 1.18 million units, and that single-family starts jumped more than 7% to an annual rate of 822,000 units, and that it has been more than eight years since single-family starts exceeded 800,000 units. That’s not the be-all and end-all for housing starts, we think, but we’ll take it, and we hope it sprinkles some cheer on the attendees at PELICE.

It stands to be a positive event, because we’ve brought in some speakers from producer companies that are building new panel plants or upgrading them. And another positive development we noticed—which many speakers from the vendor community will be addressing—is improvement in technology.

As for what else is on tap, perhaps more so than any previous PELICE, this one has considerable international flavor to complement the usual domestic stronghold. One session of speakers will address developments in China, and another session combines viewpoints from throughout the world.

We appreciate your attendance and participation, and we hope you find it beneficial to your business and stimulating to your personal development.
BROUGHT TO YOU BY

The co-producers of the fifth Panel & Engineered Lumber International Conference & Expo (PELICE) are Panel World magazine and Georgia Research Institute. Panel World is published six times per year and covers the domestic and international plywood and veneer, OSB, MDF, particleboard and engineered wood products segments. Panel World is published by Plywood & Panel World, Inc., which is affiliated with Hatton-Brown Publishers, Inc., which is headquartered in Montgomery, Ala., and publishes Wood Bioenergy, Timber Processing, Timber Harvesting and Southern Loggin’ Times magazines.

The co-chairmen of PELICE are Rich Donnell and Fred Kurpiel. Donnell is the editor-in-chief at Hatton-Brown Publishers, Inc. and editor-in-chief of Panel World. He has been covering the wood products industries for 33 years. Kurpiel is president of Georgia Research Institute and has worked in the forest products industry for nearly 40 years, including roles in export management, project development, marketing and machinery sales.

Dianne Sullivan, who is chief operating officer at Hatton-Brown Publishers, Inc., where she has worked for more than 50 years, serves as manager of PELICE.

The PELICE Program is the result of detailed efforts by sales representative Susan Windham, production personnel Cindy Sparks, Shelley Smith, Christy Sparks and Stephen Mock, and associate editor Jay Donnell.

The first PELICE was held in 2008, also at the Omni Hotel at CNN Center in Atlanta, Ga.

PELICE ON PATROL

Panel World magazine editors Dan Shell, Jessica Johnson and Jay Donnell will be on the scene, with microphones in hand, combing the exhibitor floor and conference rooms to gather interviews and feedback from attendees. They’ll be accompanied by Hatton-Brown media editor Jordan Anderson, as he videos their reports for worldwide airing at 3 p.m., Thursday, April 7, and at 10 a.m., Friday, April 8.

NECK WALLET SPONSOR

Your neck wallet is brought to you by Fusoni, a developer and manufacturer of release agents and chemical additives for panel boards.

CASH PRIZE DRAWING: $500

That’s right, you have to be there to win! At the close of the conference, at 1:15 p.m. on Friday, April 8, show officials will draw the name of the winner of the $500 cash prize. To enter, stick your business card on the bulletin board on the wall as you enter the conference rooms from the exhibitor floor (you can’t miss it). Officials will pile the cards into the tumbler and draw the winner. (Please don’t make us look bad by having to keep drawing.)

REMEMBER WHEN

The first Panel & Engineered Lumber International Conference & Expo (PELICE) was also held at the Omni Hotel at CNN Center, but not in the Grand Ballroom North where it’s held today. In fact exhibitors were set up pretty much all over the Omni Hotel that year—from down in the south level exhibit hall of Marietta Street to up on the Atrium Terrace level. The conference sessions were scattered around as well. In 2010, show officials moved the event to its current location in the Grand Ballroom North in the North Tower. In 2012, Wood Bioenergy magazine, an affiliate to Panel World, hosted the Wood Bioenergy Conference & Expo also in the Grand Ballroom North, just prior to PELICE. That’s been the format ever since, and again this year about half of the PELICE exhibitors will also exhibit in the Wood Bioenergy Conference & Expo.
The world’s finest peeling technology

It’s made better — because it’s made with Meinan.

Meinan Automates Green End
Fully Automated Lathe Line with In-Line Green Veneer Composing

The most technologically advanced peeling line in the world will soon be installed at Swanson Group Manufacturing’s new plywood plant in Springfield OR, featuring XY vision scanning with optimization, spindleless peeling to 2" core, automatic knife changer, automatic clipping with full sheet stacking, and fully automated handling and sorting of random strips fed directly into two green veneer composers.

Visit us at Booth #618 to learn more!

Shown is Swanson’s new lathe line assembled at Meinan’s manufacturing facility in Japan

Made better.
Made with Meinan.

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THURSDAY
APRIL 7

EXHIBITORS/ATTENDEES
BREAKFAST
7:15-8:15 a.m.

MORNING KEYNOTERS SESSION
(ROOMS B-C)
8:30-8:35 a.m.
Welcoming Remarks and Keynoters Introduction
—Rich Donnell, Conference Co-Chairman; Editor-in-Chief, Panel World magazine

8:40-9:00 a.m.
In Pursuit of Perfection: Building a New OSB Plant
—Jonathan Martin, Chairman and CEO, Martin Companies, LLC

9:05-9:25 a.m.
Why Build a Plywood Mill in 2016?
—Steve Swanson, President and CEO, Swanson Group

9:30-9:50 a.m.
Building From Disaster: Winston Veneer & plywood
—Kurt Liebich, CEO, RedBuilt and New Wood Resources

TIME OUT WITH EXHIBITORS
10:00-10:30 a.m.

CONCURRENT SESSIONS
(ROOMS A-B-C)

PRODUCTION TECHNOLOGIES
(Room A)
10:35-10:55 a.m.
Capitalizing on New Veneer Lathe and Dryer Technologies
—Alan Knokey, Vice President, USNR

11:00-11:20 a.m.
Log Lathe Systems: New Developments in Automatic Veneer Peeling Lines
—Anna McCann, President, Merritt Machinery, LLC, Meinan Representative

HEAT ENERGY & EMISSIONS ISSUES & TECHNOLOGIES
(Room C)
10:35-10:55 a.m.
Air Quality Hot Topics Affecting Panel & Engineered Lumber Facilities
—Wes Younger, Managing Consultant, Trinity Consultants

11:00-11:20 a.m.
Impact of Wood Species, Moisture Variation and Drying Technology on Volatile Organic Compound Emissions from Rotary Dryers.
—Tyler Player, Principal, Player Design, Inc.

11:25-11:45 a.m.
Latest Energy Systems and Dryer Systems Concepts
—Dirk Koltze, Executive Vice President, Büttner/Siempelkamp

ADHESIVES ISSUES & PERFORMANCE
PART I
(Room B)
10:35-10:55 a.m.
Traversing the Maze of Adhesive Standards and Regulations
—Jim Griswold, New Business Development Manager, Hexion

11:00-11:20 a.m.
Optimizing Resin, Wax and Release Agent Effectiveness with PanelSpray Technology
—Brian Valley, Director of Industrial Solutions, Spraying Systems Co.

OPERATIONS PLANNING
(Room B)
11:30-11:50 a.m.
Value Creation Through Engineering
—Scott Stamey, Senior Project Manager, Mid-South Engineering

11:55-12:15 p.m.
Emerging Trends in Technology Solutions for Improving Operational Performance
—Bijan Shams, President, Coagent Industrial Technologies

11:35-11:55 a.m.
New Trends in the Development of Wood and Natural Fiber Based Products
—Dr.-Ing. Bohumil Kasal, Director, Fraunhofer Wilhelm-Klauditz-Institut, WKI

11:55-12:15 p.m.
Status and Problems of the Lumber and Panel Products Industries of the Philippines
—Romulo Aggangan, Director, Forest Products Research and Development Institute (FPRDI), Department of Science and Technology, Philippines

INTERNATIONAL DEVELOPMENTS
(Birch Room–Atrium Terrace)
10:35-10:55 a.m.
Engineered Wood Trends in Europe
—Heikki Vidgren, Principal, Pöyry Management Consulting

1:35-1:40 p.m.
Remarks and Introductions
—Dan Shell, Managing Editor, Panel World

1:45-2:05 p.m.
Innovation as a Winning Strategy
—Brian Carlson, President, Huber Engineered Woods LLC

1:55-2:15 p.m.
Air Emission Control Technology Trends In the Wood Panelboard and Engineered Lumber Industry: A Supplier’s Perspective
—Rodney Schwartz, Vice President of Sales–Americas, B&W MEGTEC

10:55-11:15 a.m.
Reinvention of the North American Plywood and Veneer-Based Industry
—Dr. Richard Baldwin, Managing Partner, Oak Creek Investments

11:15-11:35 a.m.
Engineered Strand Lumber—Challenges and Opportunities
—Dr. W. Ernest Hsu, Principal, Hsu Consulting

TIME OUT WITH EXHIBITORS
2:40-3:00 p.m.

CONCURRENT SESSIONS
(ROOMS A-B-C)

EXHIBITORS/ATTENDEES
LUNCH
12:10-1:30 p.m.

AFTERNOON KEYNOTERS SESSION
(ROOMS B-C)
1:35-1:40 p.m.
Remarks and Introductions
—Dan Shell, Managing Editor, Panel World

1:45-2:05 p.m.
Innovation as a Winning Strategy
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Air Emission Control Technology Trends In the Wood Panelboard and Engineered Lumber Industry: A Supplier’s Perspective
—Rodney Schwartz, Vice President of Sales–Americas, B&W MEGTEC

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3:05-3:25 p.m.  China Is a Global Opportunity  
—Dr. Fred Kurpiel, President, Georgia Research Institute

3:30-3:50 p.m.  An Overview of the Engineered Wood Panel Industry of China  
—Dr. Hui Wan, Associate Professor, Forest Composite Products, Mississippi State University

3:55-4:15 p.m.  Market Demands—Engineered Strand Products and Applications  
—Dr. W. Ernest Hsu, Hsu Consulting

4:20-4:40 p.m.  China—Product Developments and Innovations  
—Colin Folco, Modernizaton Manager, Dieffenbacher, USA

ADHESIVES ISSUES & PERFORMANCE  
PART II  
(Room B)

Keeping It Together: Technological Advances in Wood Adhesives  
—Moderator Linda Caudill, Managing Director, Wood-Based Composites Center

3:05-3:25 p.m.  Engineered Fillers/Extenders for Wood Composites: Technologies to Extend and Enhance Phenolic and pMDI Adhesives  
—Dr. Sudip Chowdhury, Group Leader, Fillers & Extenders; Matt Peterson, Coatings Chemist, Willamette Valley Company

3:25-3:45 p.m.  Engineered Wood Adhesives Improve Production Efficiency  
—Yaqiu Zhao, Adhesive Product Development Leader, Ashland Specialty Ingredients

FRIDAY APRIL 8

EXHIBITORS/ATTENDEES BREAKFAST  
7:15-8:15 A.M.

MORNING KEYNOTERS SESSION  
ROOMS B-C

8:30-8:35 a.m.  Welcoming Remarks and Keynoters Introduction  
—Fred Kurpiel, Conference Chairman

8:40-9:00 a.m.  Green, Energy-Efficient Approach to VOC and HAP Emission Destruction  
—Dr. George Goroyias, Senior Principal, Pöyry Management Consulting

9:05-9:25 a.m.  Global Wood-Based Panels Markets—Trends and Outlook  
—Dr. Hui Wan, Associate Professor, Mississippi State University

9:30-9:50 a.m.  Why Proteak? How an Entrepreneur Became Involved in Mexico’s Newest MDF Operation  
—Luis Tejado, President, Blue Drop

TIME OUT WITH EXHIBITORS  
10:00-10:30 a.m.

CONCURRENT SESSIONS  
ROOMS A-B-C

SAFETY ISSUES & TECHNOLOGIES  
ROOM A

10:35-10:55 a.m.  Thermal Oil Hazards: Risk Identification and Prevention  
—Tom Wechsler, President, Wechsler Engineering and Consulting

11:00-11:20 a.m.  The Key to Good WESP Operation Is in the Water Treatment System  
—Jim Cash, Senior Product Engineer, B&W MEGTEC

11:25-11:45 a.m.  Prevention of Fires and Dust Explosions within the Panel Industry  
—Mikael Jidenius, Area Sales Manager, North America, Firefly AB

ENVIRONMENTAL ISSUES & TECHNOLOGIES  
ROOM C

10:35-10:55 a.m.  Air Compliance Auditing Tips for Panel & Engineered Lumber Facilities  
—Brad James, Manager of Consulting Services, Trinity Consultants

11:00-11:20 a.m.  Reducing RTO Annual Fuel Costs with Fine-Tuning Features  
—Rodney Pennington, Area Sales Manager, SonicAire/IES

11:25-11:45 a.m.  Optimization of Production in Short Cycle Press Lines: First Startup in North America  
—Thomas Franz, Managing Director, Baumer Inspection GmbH

7:15-8:15 A.M.  BREAKFAST

EXHIBITORS/ATTENDEES LUNCH  
12:10-1:30 p.m.

CASH PRIZE DRAWINGS  
1:15 p.m.

EXHIBITOR BREAKDOWN  
1:30 p.m.

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See Us at Booth #216
In Pursuit of Perfection: Building a New OSB Plant
Jonathan Martin, Chairman and CEO, Martin Companies LLC
As Martco embarked on the design and construction of its newest OSB plant in Corrigan, Texas, its 34-year history of being in the structural panel business was relied on to select the site, the engineers, the equipment and the design. Design criteria included the following: priority on safety, health and the environmental aspects of the design; facility aesthetics designed to sustain Martco’s “employer of choice” goals in the community; design is for long-term “lowest possible product cost” to compete in a commodity business; design has to be constructed within the capital budget; and use only proven equipment, reliable suppliers and contractor and design engineers.

Why Build a Plywood Mill in 2016?
Steve Swanson, President and CEO, Swanson Group
The construction of Swanson’s Springfield, Ore. mill will mark only the second plywood mill built over the past 40 years in the American West. Mills like these aren’t built from the ground-up anymore because of the immense costs. So why did Swanson elect to rebuild rather than renovate an existing structure? Primarily because the Springfield site presented a number of intangible benefits too valuable to ignore: immediate access to a quality timber source, a proven, experienced workforce well-versed with Swanson’s plywood manufacturing, and the opportunity to build one of the most advanced specialty plywood plants in North America. Swanson’s new mill will operate better than ever thanks to significant manufacturing advancements and state-of-the-art equipment and technology—some of which appear almost ground-up anymore because of the immense costs. So why did Swanson elect to rebuild rather than renovate an existing structure? Primarily because the Springfield site presented a number of intangible benefits too valuable to ignore: immediate access to a quality timber source, a proven, experienced workforce well-versed with Swanson’s plywood manufacturing, and the opportunity to build one of the most advanced specialty plywood plants in North America. Swanson’s new mill will operate better than ever thanks to significant manufacturing advancements and state-of-the-art equipment and technology—some of which appear almost nowhere else in the country.

Building From Disaster: Winston Veneer and Plywood
Kurt Liebich, CEO, RedBuilt, New Wood Resources
In early 2014, Winston Veneer and Plywood was formed with the purchase of an idled veneer and plywood mill in Louisville, Miss. Less than 30 days later, the mill found itself in the direct path of an EF-4 tornado and was completely destroyed. This presentation discusses the unique public/private partnership that has emerged over the past two years to rebuild a state-of-the-art plywood mill for the city of Louisville and Winston County, the key decisions that were made along the way, and the unique capabilities of this facility.

10:35-10:55 a.m.
Capitalizing on New Veneer Lathe and Dryer Technologies
Alan Knokey, Vice President, USNR
This presentation will focus on the application of new technologies for veneer lathe and dryer systems and how these new technologies will potentially change the way lathes and dryers will be staffed and operated in the future. It will urge decision makers to move from accommodating the norm to moving forward with new lathes and dryers.

11:00-11:20 a.m.
Log Lathe Systems—New Developments in Automatic Veneer Peeling Lines
Anna McCann, President, Merritt Machinery
One of the most technologically advanced peeling lines in the world is being installed at Swanson Group’s new plywood plant in Springfield Ore. by Japanese manufacturer Meinan Machinery Works, as this presentation will describe. Learn how this automated state-of-the-art lathe line positively impacts raw material, product quality, manpower, glue and energy costs. Meinan’s equipment and production methods can be found in panel and engineered lumber plants throughout the world, producing veneer, plywood and LVL from various raw materials with significant process and efficiency improvements. The new Swanson plywood plant will be the first in the world to utilize this fully automated lathe line with in-line green veneer composing to provide a completely automated green end solution.

11:25-11:45 a.m.
Advances in Veneer Dryer Control
John Robinson, Principal; Roger Douglas, Director of Engineering, Drying Technology, Inc.
Veneer quality, energy conservation, production rate, glue savings and veneer recovery are all directly related to maintaining a target moisture content with at least 30% less moisture variation. This presentation recommends a change in the veneer dryer control paradigm that is presently based on percent redry to a control system based on moisture control of veneer sheets using an improved Delta T Control System. In addition, the presentation will reveal that air content in the dryer actually enhances the driving force for drying and should not be reduced for energy conservation purposes because the savings from additional production far outweigh energy conservation savings.

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This presentation provides an efficient review of new potentially applicable air permitting and compliance requirements to panel and engineering lumber facilities with insights on ensuring compliance. The review will cover the following topics: 1) Boiler MACT—now that existing facilities are subject to the rule, how do you demonstrate compliance in 2016 with initial monitoring plans, limits compliance, reporting and dreaded CEDRI data entry? 2) Prevention of Significant Deterioration (PSD) permitting—are greenhouse gas (GHG) emissions a triggering pollutant, and if not, when is a Best Available Control Technology (BACT) analysis required for this regulated pollutant? 3) New Ozone NAAQS—will the new lowered 70 ppb 8-hr standard result in nonattainment for your facility and affect future permitting as well as NOx and VOC emissions standards? 4) SSM SIP Rule—what is the latest update for state submittals and how could changes affect future operations and compliance to limits during startup and shutdown periods? 5) Clean Power Plan—for facilities with cogeneration units and turbines generating electricity sold back to the grid, how could your state’s plan for compliance with NSPS Subpart TTTT regarding emission reduction credits (ERCs) affect units using qualified biomass?

11:00-11:20 a.m.
Impact of Wood Species, Moisture Variation and Drying Technology on Volatile Organic Compound Emissions from Rotary Dryers

Tyler Player, Principal, Player Design, Inc. (PDI)

This topic will cover the various empirical data results on southern yellow pine, eastern white pine, spruce/fir, and mixed hardwood species. PDI will present data from sites around the country and the various methods and technologies used to reduce the amount of them generated in a drying system.

11:25-11:45 a.m.
Latest Energy Systems and Dryer Systems Concepts

Dirk Kolitz, Executive VP, Büttner/Siempelkamp

Here are the latest additions to Büttner’s product portfolio for heat energy and dryer systems. Next to the well-known dryer systems, Büttner now offers the complete energy and dryer system to the industry. Both systems are completely integrated, offering an easy and safe operation. The energy system portfolio offers wood dust suspension burners, multi-fuel burners, low pressure duct burners for MDF dryer lines and furnaces. In addition Büttner offers various retrofits to existing energy systems.
ENGINEERED WOOD TRENDS IN EUROPE
Heikki Vidgren, Principal, Pöyry Management Consultant
The presentation introduces the market developments and product life cycles of LVL, glulam and CLT (cross laminated timber) in Europe, highlighting the similarities and differences to North America.

10:55-11:15 a.m.
Reinvention of the North American Plywood & Veneer-Based Industry
Dr. Richard (Dick) Baldwin, Managing Partner, Oak Creek Investments
This discussion places current industry dynamics in historical context. First, the presentation describes the decline of the structural plywood industry over the past approximately 30 years, focusing on (1) secular trends that have caused substitution of plywood by other building products and (2) the correlation of softwood plywood production with housing starts and other economic factors. Second, the presentation analyzes six landmark events that influence the future of the structural plywood industry. These occurrences are (1) the invention of laminated veneer lumber (LVL) in the early 1970s, (2) the rise of oriented strandboard in the late 1970s as a substitute for structural plywood, (3) the recognition of timber as a stand-alone asset in the early 1980s and the resulting decoupling of timber ownership from manufacturing, (4) the increased sourcing versatility of wood fiber starting in the 1980s, (5) increased societal concerns regarding the environment in the 1990s, and (6) the rationalization of the structural plywood industry before, during and after the Great Recession of 2008. Also, the presentation offers concrete recommendations to reverse the decline: (1) investing in lathe upgrades, (2) improving dryer performance, (3) creatively marketing plywood’s unique characteristics as did the industry’s pioneers, and (4) customizing best leadership practices. Finally, the presentation concludes that profitable business plans will heavily depend on successfully recapturing old markets and identifying additional uses for veneer based products.

11:15-11:35 a.m.
Engineered Strand Lumber – Challenges and Opportunities
W. Ernest Hsu, Principal, Hsu Consulting
There is consensus in the OSL industry and academia that structural OSL must be made from long strands. The hypothesis is that long strands provide smaller strand orientation angles than short strands and thus yield higher moduli of elasticity and rupture. However, all existing LSL production is low in moduli of elasticity and rupture although the products are higher in density than other existing structural composite lumber. This means that the approach to using long strands fails to produce high performance LSL. This is because the current disc-type strand orientators cannot align long strands to smaller strand orientation angles in a reasonable alignment speed in the commercial production. Since current approaches to manufacturing LSL have not been able to produce low cost, high performance LSL and we cannot expect different results from further repeating the same approaches, it is necessary to resort to different approaches. The new approaches are to use relatively shorter and thinner strands and better strand orientators than the current strands used by the existing LSL manufacturers.

11:35-11:55 a.m.
New Trends in the Development of Wood and Natural Fiber Based Products
Dr. Bo Kasal, Director, Fraunhofer Wilhelm-Klauditz-Institut
The wood composite material industry is generally regarded as a commodity-based industry with limited innovation drive. The presentation will show that this industry is highly innovative. The new trends in products development are represented not only by wood as a raw material but include other natural fiber plants such as bamboo, flax or coir. The new developments at the Fraunhofer WKI in the area of fiber- and matrix-dominated composites such Scrimer wood, wood-based insulation materials, molded products for car industry as well as wood foam will be discussed. Use of wood and plant-based fiber as a reinforcement of concrete structural elements will also be presented.

11:55-12:15 p.m.
Status and Problems of the Lumber and Panel Products Industries of the Philippines
Romulo Aggangan, Director, Forest Products Research and Development Institute, Philippines
Lumber, veneer and plywood are the primary material outputs of the upstream sector of the Philippine wood industry. In the last four decades, the local volume production of lumber declined by 80%, veneer by 55%, and plywood by 46%. The imports of lumber and veneer peaked between 1994 and 2003 at a yearly average of US$99 million and US$22 million, respectively; while plywood imports was at US$39 million between 2009-2011, mainly because of the influx of China-made plywood. Between 1994 and 2011, their aggregate yearly imports averaged at 355,000 cubic meters valued at US$112 million. On the other hand, the aggregate export of these primary wood products, hugely dominated by lumber, has been on a slump. From a yearly average peak at 1,157,000 cubic meters valued at US$275 million in the period 1979-1983, exports in the period 1999-2003 plunged to 109,000 cubic meters valued at only US$18 million. For many years, the processed wood products industry was being plagued with a timber supply shortage aggravated by the issuance of Executive Order 23 calling for a moratorium on the cutting of trees from the natural and residual forests. Also, this presentation offers strategic programs and policies that will revive and sustain the industry to become again a contributor to national development.
AFTERNOON KEYNOTERS SESSION  
(ROOMS B-C)

1:35-1:40 p.m.  
Remarks and Introductions  
Dan Shell, Managing Editor, Panel World

1:45-2:05 p.m.  
Innovation as a Winning Strategy  
Brian Carlson, President, Huber Engineered Woods LLC

Product and process innovation serve as excellent sources of competitive advantage, differentiation, and market diversification. It is also one of the better core strategies used to maximize shareholder value in all markets today. While the panel industry has a long history of innovation success, the general commodity nature of the markets may at times limit innovative thinking. A deep commitment and significant investment is required to win as an innovative company; however, the rewards can be significant and should be carefully considered in any strategic assessment on how one plans to compete in a given market.

2:10-2:30 p.m.  
Air Emission Control Technology Trends in the Wood Panelboard and Engineered Lumber Industry: A Supplier’s Perspective  
Rodney Schwartz, Vice President of Sales-Americas, B&W MEGTEC

B&W MEGTEC has been active in the wood panelboard and engineered lumber industry for more than 15 years, supplying air abatement technologies to a long list of major producers. Its experience gained from the “early years” working hand in hand with producer partners has allowed it the unique opportunity to garner a wide range of technical and practical knowledge. The timing of its entrance into the market allowed it the ability to understand what had been done (both good and bad), test and evaluate alternatives, and offer new and unique options for producers. In its quest for the right solutions, B&W MEGTEC studied the process of making wood-based products with its customers in an effort to understand how its environmental solutions impacted producers and the making of their products. B&W MEGTEC used this knowledge to expand its technology offerings, from VOC abatement to particulate control and gas cleaning, always keeping customer requirements as a guiding force.
to the attributes required for different applications.

dominated strand board, or an oriented strand lumber according to OSB with specific density levels and density profiles, or a random layered OSB as well. For example, the engineered strand products could be an engineered fillers and extenders for enhanced adhesive distribution and rheology. This presentation addresses interactive resin additives, their applicability in different resin chemistries (phenolic and isocyanate), and the proven success of value addition for the panel industry.

3:05-3:25 p.m.
China Is a Global Opportunity
Dr. Fred Kurpiel, President, Georgia Research Institute

China is moving toward consumption rate of near 1 cubic meter per person per year. At this point, China will consume between 60 and 65% of all wood products manufactured in the world. Paradigm shifts will affect: available raw material; outdated equipment in older mills; continuing increase in demand will yield a market moving toward more domestic consumption; increase in imports; reduction of exports and a continuous demand for updated technology for increasing fiber efficient utilization and modified products.

3:30-3:50 p.m.
An Overview of the Engineered Wood Panel Industry of China
Dr. Hui Wan, Associate Professor, Forest Composite Products, Mississippi State University

Based on face-to-face interviews of presidents, vice presidents and directors of Chinese wood composite companies, distributors, green house associations and research institutes, importers and end users, the presentation describes the forest product market trends of the Chinese market for the next five years. The presentation also reveals the concerns of Chinese forest products policy makers and Chinese wood products manufacturers, and offers suggestions to the U.S. forest product manufacturers and exporters about the urgent Chinese forest product market needs.

3:55-4:15 p.m.
Market Demands—Engineered Strand Products and Applications
Dr. W. Ernest Hsu, Principal, Hsu Consulting

OSB has been a successful story in strand composite industry. It has largely displaced structural plywood as a construction material for residential buildings in North America. However, the OSB supply has been much higher than demand for the past few years. As a result, many OSB mills have been shut down or reduced production, whereas attempts have been conducted to use OSB as the core stocking in differen applications in China. However, the NA structural OSB was not engineered for most of the applications in China. Likely, it will not be able to compete with other materials at the same price because different applications in China require different attributes. Fortunately, OSB can be re-engineered to different engineered strand products to satisfy the attributes required for different applications in the most economical way. Basicall, OSB can be re-engineered via changing the degree of strand orientation, strand geometry and distribution in each layer, as well as the location of fines and vertical density profile. For example, the engineered strand products could be an OSB with specific density levels and density profiles, or a random oriented strand lumber according to the attributes required for different applications.

4:20-4:40 p.m.
China—Product Developments and Innovations
Colin Folco, Modernization Manager, Dieffenbacher Customer Support

This presentation offers a brief look at what new products and innovations have been made in China and other Asian countries relating to the panelboard industry. It is not intended to be an in-depth review of all product developments and innovations. It will look back at some historical examples of what product developments and innovations have been made over time in building materials. Following this it will highlight the use of OSB as container flooring, look at the new fine surface OSB as a decorative panel, review alternative OSB strands from low cost raw materials, review wheat and rice straw and a new innovation to eliminate the need for resonated protection particles when producing particleboard with MDI resin. Examples of the products and innovations will be presented and shown that they are now in production.

ADHESIVES ISSUES & PERFORMANCE PART II

Keeping It Together: Technological Advances in Wood Adhesives and Adhesion
Moderated by Linda Caudill, Managing Director, Wood-Based Composites Center

Industry members and faculty of the Wood-Based Composites Center bring a diverse set of science-based knowledge and products to the industry. This session focuses on adhesives and adhesion—on topics ranging from developing new adhesives, to improving current technologies, to understanding how wood contributes to product formaldehyde emission even in the absence of formaldehyde-based adhesives. The common theme? Excellent science that drives improvement and discovery.

3:05-3:25 p.m.
Engineered Fillers/Extenders for Wood Composites: Technologies to Extend and Enhance Phenolic and pMDI Adhesives
Sudip Chowdhury, Group Leader, Fillers & Extenders; Matt Peterson, Coatings Chemist, Willamette Valley Company

Wood-adhesive interaction is a fascinating and challenging topic because of the chemical, morphological and anatomical complexity of the substrate (wood) and the adhesive. Strength and durability of a wood composite primarily depends on the quality and uniformity of the wood-adhesive bondline. Despite the many different products and production operations across the wood-composites industry, adhesive distribution and rheology are of critical importance for adhesive application and product performance optimization. Over the last few decades Willamette Valley Company (WVCO) has helped improve wood composites manufacturing by supplying innovative, engineered fillers and extenders for enhanced adhesive distribution and rheology. This presentation addresses interactive resin additives, their applicability in different resin chemistries (phenolic and isocyanate), and the proven success of value addition for the panel industry.
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PELICE SESSIONS

3:25 p.m.-3:45 p.m.
Engineered Wood Adhesives Improve Production Efficiency
Yaquiu Zhao, Adhesive Product Development Leader, Ashland Specialty Ingredients

Structural adhesives are widely used in engineered wood products such as I-joists, fingerjoints, glued laminated timber, cross laminated timber and laminated veneer lumber applications. New structural adhesives not only offer strength and integrity in the EWPs, but also offer improved manufacturing efficiency.

3:45-4:05 p.m.
Adhesive Technology Drives Mass Wood Innovation
Chris Whelan, Senior Business Development Manager, Henkel Corp.

This presentation focuses on the developments in adhesive technology that have allowed for innovation in wood assembly/manufacturing and performance. This new technology offers architects and engineers new wood-based building elements capable of meeting or exceeding current commonly used solutions—economically, ecologically, aesthetically and structurally.

4:05-4:25 p.m.
Lignin: Moving Toward Renewable Bio-Based Adhesives
Mojgan Nejad, Assistant Professor, Mississippi State University

Why use lignin to make adhesives for the production of engineered wood products? A lot has changed in the past few years that drives researchers and industries to look again at the application of lignin in adhesives. This talk will address some of the major issues associated with formulated lignin-based adhesives in the past, and will present new approaches in developing lignin-based adhesives.

4:25-4:45 p.m.
Wood-Generated Formaldehyde
Chip Frazier, Professor of Sustainable Biomaterials, Virginia Tech; Director of Wood-Based Composites Center

Considering recent trends in formaldehyde regulations, industry members of the Wood-Based Composites Center requested research on how wood naturally generates formaldehyde. The long-term goals are to understand how wood generates formaldehyde, and to reduce emissions using this knowledge. Efforts follow two pathways: 1) Determine the relative contributions from wood holocellulose, wood extractives and lignin, and 2) Track natural formaldehyde levels from the stump to the hot press in different tree species. In the second case you start with green, tree increment cores; then use low temperature drying, and then impose hot press conditions, all while following natural formaldehyde levels. This talk will review these efforts, the practical implications, and the challenges and opportunities that will be tackled in the future.

ENVIRONMENTAL ISSUES & TECHNOLOGIES
PART I
(ROOM C)

3:05-3:25 p.m.
Dual-Biophase Bio-Oxidation—A Green, Energy-Efficient Approach to VOC and HAP Emission Destruction
Nathan Hess, Applications Engineer, Process Combustion Corporation

Biofiltration systems have been mainly used for treating odor emissions from Municipal Wastewater Treatment Plants, and to a lesser extent, for treating emissions of Hazardous Air Pollutants (HAPs) and Volatile Organic Compounds (VOCs) from industrial operations. Increasingly, modern engineered Biofiltration, termed Bio-Oxidation, is now a viable alternative to existing air pollutant control technologies because of its advantages of lower operating cost and reduced emissions of carbon dioxide. Dual BioPhase Bio-Oxidation is an effective treatment technology for odors, HAPs, and VOCs due to a number of technological advances. These advances have resulted in reduced equipment size with the ability to handle larger and more concentrated airflow of a wider range of compounds than traditional biofilter technologies. The end result is air-handling equipment that performs much like mechanical treatment systems, but is biologically based with significant savings in energy costs.

3:30-3:50 p.m.
Meeting EPA Emission Standards with Cyclones
Mike Clark, Regional Sales Manager, Fisher-Klosterman Emtrol

This presentation reviews the importance of aerodynamic particle size distribution analysis and empirical test data used to guarantee the overall removal efficiency of cyclones. It will also cover the use of high residence time cyclone design to collect very fine particles.

3:55-4:15 p.m.
Wet Scrubbers: Upgrading and Results

Wet scrubbers, many installed 20-30 years ago, are aged to a point where they may be ready for replacement or a major renovation. In today’s regulatory environment, these older wet scrubbers may not meet the new requirements. But before committing to higher cost options, the wet scrubber may be worth a second look. This presentation will address the options of upgrading existing wet scrubbing equipment and how to predict the results of such upgrades.

4:20 p.m.-4:40 p.m.
Water Recycle/Reuse in the Wood Products Industries
Dr. Rakesh Govind, President, PRD Tech, Inc.

There is limited freshwater on the planet and the record-breaking 2012 North American drought inflicted moderate-to-exceptional water scarcity in more than 60% of the continental U.S. Nearly 80% of agricultural land in the U.S. remains in a state of drought today. The largest water reservoir in the U.S., Lake Mead, has reached its lowest level since the lake was first filled-out in 1930. The Canadian Lake Superior, the world’s largest freshwater lake, has dropped to its lowest level in 81 years. Since 2004 the Colorado River Basin, which supplies water for 40 million people in seven states, has lost twice as much water as there is in the entire Lake Mead. In view of the water shortages, the expansion and intensification of bioenergy production could add to existing pressures. There-
fore, water resources management and adequate policies and strategies are needed to help ensure sustainability and balance different types of use in the short and long term. The forest products industry’s manufacturing operations are among the largest industrial water users and thus figure prominently in local and regional discussions concerning water resource decisions. Typically, wastewater contains excess tars, saps, tannins and lignins. Effectively reusing industrial wastewater is a multi-step process, combining the most effective water treatment protocols in a particular order, yielding the highest quality effluent that can be reused in the facility. This presentation examines technologies pertinent for water treatment, recycle and reuse in the wood products and bioenergy sectors.

FRIDAY, APRIL 8
MORNING KEYNOTERS SESSION
(ROOMS B-C)

8:30-8:35 a.m.
Welcoming Remarks and Keynoters Introduction
Dr. Fred Kurpiel, Conference Co-Chairman

8:40-9:00 a.m.
Reason for Optimism in North American Composite Wood Industry
Jackson Morrill, President, Composite Panel Assn.

As we emerge from the “Great Recession,” there are a number of positive developments shaping the North American composite wood industry today. There have been notable announcements of expansions in production and even new mills coming on-line. There is true innovation going on in the thermally fused laminate and decorative surfaces markets that are providing new opportunities in a host of applications. The industry is nearing a time when it will have a national formaldehyde emissions regulation in place in the U.S., while at the same time Mexico and Canada are making moves to implement similar standards. The industry’s sustainability message is strong, particularly in a more carbon-conscious environment. Acknowledging that challenges and potential new issues certainly remain on the horizon, there is reason for optimism in the North American composite wood industry.

9:05-9:25 a.m.
Global Wood-Based Panels Markets: Trends and Outlook
Dr. George Goroyias, Senior Principal, Pöyry Management Consulting

During the past decade, the global particleboard and MDF sectors have grown but regional dynamics have changed—traditional markets have faced challenges and emerging regions have strengthened their position. Pöyry has been working within the global wood-based panels sector for decades and provides a point of view on the regional dynamics, demand drivers, supply and demand and investment needs for the global particleboard and MDF sectors.

9:30-9:50 a.m.
Why Proteak? How an Entrepreneur Became Involved in Mexico’s Newest MDF Operation
Luis Tejado, President, Blue Drop

Mexico is a country with a vast and deep forestry history, but changes made during the revolution (early 1900s) altered the dynamics of the industry. Consequently, Mexico imports increased to $6 billion USD of wood and paper products, including the import of more than a half million cubic meters of MDF. Today, after more than 20 years of several efforts to close the loop of high yield plantations (in the tropical southeast of Mexico) and the first successful industrialization effort done in Mexico (MDF plant), the pattern is changing. This has required a commitment from the forestry side but with a strategic partnership in the industrial side as well.
SAFETY ISSUES & TECHNOLOGIES  
(ROOM A)

10:35-10:55 a.m.
Thermal Oil Hazards: Risk Identification and Prevention  
Tom Wechsler, President, Wechsler Engineering and Consulting
One of the many potential sources of fire hazard in today’s board mills is with the thermal oil system. Often this source of hazard is given less attention than the production process. Additionally, many systems were put in place at a time when standards were not well developed and even to this day are not. This presentation will examine what current “standards” are, critical hazards areas of thermal oil systems, as well as methods to audit, and mitigate fire risk associated with thermal oil systems using preventative measures.

11:00-11:20 a.m.
Proven Fire Protection Systems for the Engineered Panel and Lumber Industries  
Jeff Nichols, Managing Partner, Industrial Fire Prevention, LLC
How do you keep from burning down and blowing up your plant? This program will discuss proven systems to help protect your plant, process, production and people from the devastation of combustible dust fires and explosions in the wood industry. It will help you identify combustible dust and ignition hazards leading to fires and explosions, and present proven systems to prevent and control fires and explosions, thus preventing downtime, production losses and injuries, as well as saving lives.

11:25-11:45 a.m.
Prevention of Fires and Dust Explosion within the Panel Industry  
Mikael Jidenius, Area Sales Manager, North America, Firefly AB
This presentation examines several elements of prevention: What is needed to get a dust explosion? Ignition sources. Minimum ignition temperature & energy. Which particles are dangerous? Where to locate spark detection systems. Extinguishing methods. Installation examples.

11:50-12:10 p.m.
How to Reduce Risks of Combustible Dust: New Standards, New Technologies  
Jordan Newton, Vice President of Engineering, SonicAire/IES
The purpose of this session is to give attendees the vital information they need from the new NFPA 652 Standard, as well as critical updates on the solutions available to meet those standards and save lives from combustible dust explosions. The risks inherent to combustible dust still plague the industry; professionals are still grappling with solutions to solve the problems. National Fire Protection Association (NFPA) has recently released the first edition of NFPA 652, a new standard designed to provide general and more consistent guidelines for combustible dust hazards. This talk will describe the changes—the good, the bad and the ugly—and what they mean to bioenergy processors. It will also examine the spectrum of solutions that can be used by wood and bioenergy processors, and evaluate the strengths and weaknesses of each approach. What’s more, the latest technologies will be reviewed and evaluated.

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QC & OPTIMIZATION
(ROOM B)

10:35-10:55 a.m.
Optimization of Production in Short Cycle Press Lines: First Startup in North America
Thomas Franz, Managing Director, Baumer Inspection GmbH

A new generation of board inspection systems focused upon the optimization of lamination in short cycle press lines will be discussed. Baumer Inspection’s new MFC4.0 is equipped with 14 cameras geared to sensitivity and resolution. The core module of MFC4.0 is the newly designed “brilliance module,” which is designed to detect all those problems in lamination which are in connection with press parameters or the impregnation of the paper. For the safe detection of those imperfections, sometimes very small and with a low-contrast, Baumer developed a special narrow-band source illumination. This illumination with selected LEDs is flashed in different angles. The fast scanning and highly sensitive new Baumer cameras have integrated logic arrays, so called FPGAs, to analyze all images taken with different angles in “real time.” Baumer has patented this new technology under the name “flashing sky.” For the first time, a scanner has the ability to detect very weak, melamine resin related problems. The first system in North America is currently going into production.

11:00-11:20 a.m.
Moving Towards Smart Factory Using Automatic Scanner and Panel Repair Technology
Tor Gustavsen, Managing Director, Argos Solutions

The factory of the future—the smart factory—is where defect and downtime, waste and waiting is past history. The smart factory has the latest technological and manufacturing developments, a flawless integration of high-tech systems and highly skilled workers. This might sound like a dream, but the reality is that this vision is much closer to reality than most people think. Argos has taken scanning technology one-step further by integrating automatic repair stations to its grading system for complete automatic panel repair systems for plywood and other wood products needing manual repair. The fully automatic repair line will eliminate manual labor and optimize the use of fillers like face putty and polyurethane. The scanner and repair technology allows for customized grading and repair rules and provides accurate production statistics of drift in quality, reason for downgrades and accurate repair statistics. The full effect of this technology is when automation projects ties all the product handling from press through panel repair, trimming and sanding without the need of forklifts.

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Developments in Online Quality Control for the Manufacture of Composite and Engineered Wood Panels
Andrew Jowett, President, IMAL PAL Group North America

Throughout the manufacturing process, from wood yard to finished product warehouse, it is necessary to monitor and control quality. Quality as it relates to fiber condition in terms of size, shape, moisture content, etc., pre-press fiber preparation and post press board properties including density, delamination, thickness, etc. There have been significant technological improvements in these areas and they will be discussed during the presentation along with several recent case studies.

ENVIRONMENTAL ISSUES & TECHNOLOGIES
PART II
ROOM C

10:35-10:55 a.m.
Air Compliance Auditing Tips for Panel & Engineered Lumber Facilities
Brad James, Manager of Consulting Services, Trinity Consultants

With air regulations and permitting requirements more complex and changing for panel and engineered lumber facilities, a periodic air compliance audit can be a useful tool. The key to a successful air compliance audit is assuring the proper strategies for assimilating and understanding the compliance obligations of an air permit. A review of techniques for breaking down permit conditions (and regulations applicable to panel and engineered lumber facilities into tasks, against which compliance can be assessed will be completed. Specific examples of dissecting and categorizing an air permit will be provided to attendees to assist a facility internally or externally complete an audit. Specific guidance and instruction will also be provided on documenting audit findings and there will be discussion on technology tools available to assist in the auditing process. Examples involving reviews of real air permits for clients in the wood product industry will be provided on how to assess compliance.

11:00-11:20 a.m.
Reducing RTO Annual Fuel Costs with Fine-Tuning Features
Rodney Pennington, VP of Key Accounts, NESTEC, Inc.

Several MCC RTO features have been installed and proven to reduce the fuel costs on both new and existing RTO units in the wood industry. The features offer several specific wood application enhancements for maximum compliance, lower operating costs, lower maintenance requirements, and higher up time reliability for wood industry manufacturing facilities. Features include: additional fuel energy savings with Thermal Alignment Programming Design; combustion air on ratio control; valve cycle timing control; premixed natural gas injection system; hotter inlet valve surfaces to minimize/eliminate condensable buildup on the valve; heat exchange media support with thermal expansion design compensation, and uniform air flow distribution; 96% thermal energy recovery (TER) design, a 20% reduction in energy requirement over a 95% design; full process flow with incremental on line bake out capability; 98+% destruction removal efficiency (DRE); modular design to minimize shipping and installation costs. Fine-tuning the RTO with one or several of the above features can reduce the fuel consumption by 8 to 40%. On a large wood application this can amount up to $200,000 per year in fuel savings, even at today’s natural gas cost.

11:25-11:45 a.m.
The Key to Good WESP Operation Is in the Water Treatment System
Jim Cash, Senior Product Engineer, B&W MEGTEC

Technical information on the design and operation of a WESP is easy to find but what really makes or breaks their operation is the water treatment system. This presentation focuses on the issues involved in designing and operating a WESP water treatment system. The pieces of the puzzle in terms of function, equipment choices and operation are examined.
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Dr. Romulo Aggangan
Director—Forest Products Research and Development Institute
Dept. of Science and Technology, Philippines

Romulo holds a Ph.D. degree in Biological and Environmental Sciences from Murdoch University, Perth, Western Australia, with fields of specialization in Forest Soils and Ecology. He also finished his B.S. and M.S. in Forestry at the University of the Philippines Los Baños College of Forestry. Romulo has extensive experiences and expertise on the formulation, review, monitoring and evaluation as well as in the conduct of various R&D programs in forestry, environment and natural resources including agroforestry.

Dr. Richard Baldwin
Managing Partner
Oak Creek Investment

Dick has a career in the plywood industry that few can match. Through the years he laid core, rustled stock, supervised production personnel and worked as an industrial engineer, general superintendent and operations manager. Dick had operating authority over wood products factories in Latin America and Southeast Asia, was Managing Partner and an operator of seven wood products manufacturing plants. From 2007 to 2013, he served as Executive Vice President/General Manager for the Southeastern U.S. division of Wood Resources LLC prior to its successful sale to Boise Cascade. He has been a key participant in important industry innovations such as development of small log processing technology and the high-speed layup line, and has been deeply involved in innovative product mix development. He is the author of seven books concerning manufacturing practices, operating management, maintenance, and forestry issues. His most recent book, published this year, “Plywood And Veneer-Based Products,” is the fourth in a series. Dick holds a B.S. in Operations Management from the University of Oregon, M.S. in Forestry from Stephen F. Austin State University, and a Ph.D. in Public Affairs from the University of Texas at Dallas.

Brian Carlson
President
Huber Engineered Woods

Brian has served as President of Huber Engineered Woods LLC (HEW) since July 2007. He joined HEW in 1995 as a Resin Scientist at Huber’s R&D facility in Commerce, Ga. In 1997, Brian moved to HEW’s headquarters in Charlotte, NC, where he held several roles, including Product Sales, National Accounts and Field Sales Director. He was promoted to Vice President of Sales & Marketing for HEW in 2000 and added responsibility for Business Development & Strategy in 2003. He was later named VP of Sales/Marketing/Innovation. Brian has more than 20 years of experience in the forest products and chemical industries. Prior to Huber, he worked at Temple Inland and Neste Resins. Brian holds two degrees from Pennsylvania State University: a B.S. in Forest Science and an M.S. in Forest Resources. He also has an M.B.A. from Georgia Tech.

Jim Cash
Senior Product Engineer
B&W MEGTEC

Jim develops products and solutions for B&W MEGTEC, a leading manufacturer of air pollution control and industrial equipment for various markets, including the panel board and biofuels industry. Jim holds more than a dozen patents and is responsible for the design of over a half a billion dollars in industrial equipment including the CLEAN-SWITCH RTO. Jim has held positions in application engineering, project management, product development and sales. He was involved with piloting testing and installing abatement systems for wood panel manufacturers starting in 1993 and continues to work on air pollution control equipment, capture technology, and heat recovery systems for the engineered wood and other related industries. Jim has authored and presented technical articles associated with pollution control and energy recovery technologies. He received his B.S. in Mechanical Engineering from The College of New Jersey in 1985.

Linda Caudill
Managing Director
Wood-Based Composites Center

Linda is the Managing Director of the Wood-Based Composites Center, a National Science Foundation Center funded at Oregon State University and Virginia Tech. After receiving a Master of Science degree from Virginia Tech, she spent 12 years with Weyerhaeuser Company before returning to Blacksburg to manage the WBC. In her role as Managing Director, Linda bridges the needs of Center members, faculty and students, and helps graduating students start their careers with WBC member companies.

Dr. Sudip Chowdhury
Group Leader—Fillers & Extenders
Willamette Valley Company

Sudip is a polymer chemist with 15 years of experience working with wood and wood composites. He received his B.Sc. with chemistry major from the University of Calcutta, India. He received his first M.S. in Wood Science and Technology from Forest Research Institute, India and followed by a second M.S. in Civil and Environmental Engineering from Washington State University, where he worked on developing highly durable OSB for Naval low rise buildings. He worked on his Ph.D. on polymer science and engineering, where he worked with Prof. Chip Frazier on understanding structure-property relationship of in-situ wood polymers. Sudip worked as a postdoc at the University of British Columbia, where he worked on developing novel applications of lignin.

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PELICE SPEAKERS

Mike Clark
Regional Sales Manager
Fisher-Klosterman Emtrol

Mike joined CECO in 2007 and worked with its systems division doing dust system design, evaluations and testing. The last five years he has been with Fisher-Klosterman as a regional sales manager and applications engineer. Mike holds a B.SME. from Mississippi State University, an M.SME. from the University of Alabama at Birmingham, and teaches at the Birmingham Industrial Ventilation Conference.

Roger Douglas
Director of Engineering
Drying Technology, Inc.

Roger graduated from Lamar University, Beaumont, Texas, with a B.BA. in Accounting in 1975 and a B.S. degree in Chemical Engineering in 1992. His industrial experience includes 12 years with Mobil Chemical, four years with Quantum Chemicals, and the past 23 years with Drying Technology, Inc. He has designed, programmed and started up hundreds of Delta T Moisture Control Systems throughout the world. He has presented several technical papers on the subject of moisture sensing and control.

Colin Folco
Modernization Manager
Dieffenbacher Customer Support

A graduate of Lakehead University in Canada, with degrees in Engineering and Physics, Colin is an innovative leader within the field of modernization and upgrades. Colin has worked at leading companies such as Grant Forest Products Inc. and Weyerhaeuer Co. Ltd, where his specialized expertise, extensive experience in mill improvements and capital investments enabled him to lead many successful projects. Since joining Dieffenbacher in 2005, Colin has led the development and implementation of the Dieffenbacher Group’s modernization projects throughout North and South America. Highlights include developing new modernization concepts, upgrading and relocation of press systems, complete press replacements, first-ever vented platens on a particleboard press, forming line speed-ups and forming station improvements.

Charles Frazier
Director
Wood-Based Composites Center

Chip is the T.M. Brooks Professor of Sustainable Biomaterials at Virginia Tech, and the Director of the Wood-Based Composites Center, a National Science Foundation Industry/University Cooperative Research Center. In his 24 years at Virginia Tech, Chip has specialized in wood adhesion, wood polymer science and wood chemistry.

Dr. George Goroyias
Senior Principal
Pöyry Management Consulting

George has a Ph.D. in Wood Products from the University of Wales, UK and a B.Sc. in Forestry/Forest Technologist from the Technological Institute of Forestry, Greece. George specializes within the sectors of wood products, decorative surfaces, chemicals, chemical modification, adhesives, furniture, construction, waste, bioenergy and sustainability. George has developed strong business management skills, including procurement, strategy, market entry pathways, portfolio mapping, scenario planning, forecasting, operations improvement and product development. George has more than 200 industry assignments across the entire wood products value chain globally. Previously he worked for Kronospan, BioComposites Centre, Government of Greece and Forest Research Institute of Greece.

Rakesh Govind
President
PRD Tech

Rakesh is Professor of Chemical & Materials Engineering at the University of Cincinnati and President of PRD Tech, Inc., a small business company that designs, builds and supplies biofilters and bioscrubbers to municipalities and industries for treating emissions of odors and volatile organics. He has worked extensively in the area of biofiltration, bioremediation of contaminated soils and sediments, membrane systems and membrane bioreactors. He has been awarded the Earth Day Award by Cincinnati Gas and Electric Company, Alfred Bodine Award from the SME, more than 10 patents, published more than 120 papers in peer-reviewed journals and spoken at numerous national and international conferences.
**Jim Griswold**  
**New Business Development Manager**  
**Hexion**

Jim graduated from Oregon State University in 1991 with a B.S. in Forest Product Business Management. He spent the next four years in central Oregon working for two different moulding and millwork manufacturers. His focus was on process improvement, automated scanners and chop saws, and supervisory positions. He started working for Borden Chemical in 1995 as a Technical Sales Representative. After eight years at Borden, he took a job as the GM for a glulam laminated timber company called Filler King in Homedale, Idaho. During that time he became involved with the AITC (American Institute of Timber Construction). He held several positions within the AITC including Adhesive Sub Committee Chairman (in charge of helping develop AITC 405 Structural Glue Standard for the glulam industry, member of the AITC Board of Directors 2010-2012, and AITC President 2012. Since 2013 he has served on the ANSI/APA Glulam Standards Ex-Sub Committee. He is currently working in Hexion's Performance Adhesives Div.

**Tor Gustavsen**  
**Managing Director**  
**Argos Solutions**

Tor earned his bachelor’s degree from Kongsberg State College in Mechanical Automation and Business Administration. Tor has been working with high-tech companies focusing on automation processes within the automobile, sign, paper and wood industry for more than 25 years. He has held numerous positions including Service Manager, Product Manager, Sales and Marketing Manager as well as Managing Director. Tor grew up in Kongsberg, Norway, where he went to school before starting his professional career with one of the largest high-tech companies in Norway. Kongsberg is a small town, but it hosts many high-tech companies and has a diversified industry which includes defense, automobile products, maritime positioning systems, underwater oil production systems, aircraft engine products to mention a few. The common platform for these companies is integration of mechanical, electrical and software solutions, which also is the foundation for the product range of Argos Solutions. Tor started with Argos in 1999 and has been responsible for building up sales and market distribution worldwide. Since 2009, he has held the position as Managing Director.

**Nathan Hess**  
**Biological Oxidation Engineer**  
**Process Combustion Corp.**

Nathan designs biological treatment solutions for contaminated gas emissions for a variety of industries, and is responsible for development of the Biological Oxidation R&D initiative at PCC. Nathan received his B.S. in Chemical Engineering from the University of Delaware.

**W. Ernest Hsu**  
**Principal**  
**Hsu Consulting**

Ernie has 38 years of experience in research and development, mill practice, and consulting involving major OSB and structural composite lumber companies. He received a Ph.D. from Washington State University, and is a fellow of the International Academy of Wood Science. He has more than 15 original process and product patents related to wood composites. To share his experience in research and development on OSB and structural composite lumber, practical experience in the field and knowledge gained in his career, Ernie has published “Oriented Strand Board Manufacturing” and is publishing another book, “Structural Composite Lumber Manufacturing.”

**Brad James**  
**Manager of Consulting Services**  
**Trinity Consultants**

Based in the Atlanta office of Trinity Consultants, Brad’s experience includes air regulatory applicability determinations, air permit compliance assistance, and state and federal air quality permitting for multiple industries in the Southeast U.S. In 2007, he assisted in the opening and co-managing of Trinity’s Orlando office. With more than 13 years of experience in environmental consulting, Brad has advised clients in a variety of industries, including wood products and specifically wood pellet production, panel and engineered lumber. Brad works closely with clients and permitting authorities to negotiate permit conditions that provide optimum operational flexibility while meeting regulatory requirements. He is a registered professional engineer in the state of Florida.

**Mikael Jidenius**  
**Area Sales Manager**  
**Firefly AB**

Mikael works with business development of customized fire prevention systems, which monitor industrial processes in areas such as woodworking, tissue, food, bioenergy and recycling. His well-rounded experience includes sales and management for rail maintenance services, water meters, gear techniques, UV lamps, shaft seals and magnetic mixers, and sales of machine and process equipment to numerous industries.
Andrew Jowett  
President  
IMAL-PAL Group North America

Born and educated in the UK with a degree in Industrial Engineering from Leeds Polytechnic, Andrew spent the first half of his career in manufacturing as an Industrial Engineer and later in Factory Management with a number of large kitchen, upholstery and office furniture manufacturers. In the late 1980s he changed his career path and joined a major Italian woodworking equipment manufacturer (Giben International) and established their new subsidiary in Nottingham, England, organized to market, sell and provide technical support to customers throughout the UK. He helped repeat this exercise in 1993 when they established a subsidiary in North America at which time he moved to Atlanta in 1994 and became V-P Systems and Engineering servicing the primary board manufacturers and major secondary panel processors. Since then Andrew worked for a number of other organizations including Globe Machine Manufacturing as Sales Director, SCM Group North America as Key Accounts Business Manager, and for the last three and a half years as President of the IMAL-PAL Group subsidiary taking care of all activities in the U.S. and Canada while based in Atlanta.

Dr. Bohumil Kasal  
Director  
Fraunhofer Wilhelm-Klauditz-Institut

Bo leads the world’s largest research institute, focusing on lignocellulosic biomaterials. The Fraunhofer-Gesellschaft is, with more than 22,000 employees and more than 60 institutes, the largest applied research organization in Europe. Bo concurrently holds a Chair in Organic and Wood-based Construction Materials at the Carolo-Wilhelmina University in Braunschweig, Germany. He holds an Ing. degree (engineer) from the University of Zvolen, Slovakia, an M.S. in Wood Science from Virginia Tech, M.S. in Civil Engineering and Ph.D. in Wood Structures from Oregon State University. He is a registered professional engineer. In 2001-2002 he was a Senior Fulbright Fellow in Germany. During 2005-2010, Bo was a Hankin Chair and Professor of Civil Engineering and Professor of Architectural Engineering at the Pennsylvania State University, and Director of the Pennsylvania Housing Research Center. Previously, Bo was a Professor at the North Carolina State University in Raleigh, NC.

Alan Knokey  
Vice President  
USNR

Alan is a 45-year veteran of the panel industry. He began his career with Coe Manufacturing in 1969. Alan remained with Coe until Coe was purchased by USNR in 2009. He is currently Vice President of the USNR Panel Products machinery line. Alan has been extensively involved in the design, manufacture of veneer lathe and drying systems for the world market.

Dirk Koltze  
Executive Vice President  
Büttner

Dirk is responsible for all new machinery sales activities of Siempelkamp GmbH and its subsidiaries, Büttner, Siempelkamp Handling Systems (SHS), and Siempelkamp Energy Systems (SES) in North America. Dirk joined the company in 2001. Based in Charlotte, NC, Dirk holds a Master’s degree in Mechanical Engineering from the University of Krefeld (Germany) and is a registered engineer.

Dr. Fred Kurpiel  
President  
Georgia Research Institute

Fred’s nearly 40 years in the forest products industry includes positions as industrial sales engineer with Masonite; regional and export manager with American Plywood Assn. and director of APA’s Southern Executive Office; marketing manager with Coastal Lumber Co.; vice president of Siempelkamp NA; president of Imeas, Inc.; and technology leader with Protronics. He founded Georgia Research Institute to form partnerships in technology transfer, product development, education and training. Fred received his Ph.D. from the Dept. of Forestry/Forest Products at the University of Idaho. Fred is a co-founder and Co-Chairman of the Panel & Engineered Lumber International Conference & Expo (PELICE).

Kurt Liebich  
CEO  
RedBuilt and New Wood Resources

Kurt served as President and CEO of Wood Resources LLC, an affiliate of Atlas Holdings, beginning in 2012 until its sale to Boise Cascade in September 2013. Atlas subsequently formed New Wood Resources to operate plywood plants, including Winston Veneer and Plywood, which is starting up this year. Kurt became CEO of New Wood Resources and RedBuilt. Prior to joining the Atlas companies, Kurt was an executive with Weyerhaeuser Co., where he served as Vice President of the Trus Joist division after having been Vice President of the Trus Joist Commercial division. Kurt joined Trus Joist in 1994 as a Corporate Finance Manager. He served in numerous roles, including Production Manager of the Stayton facility, VP of Marketing for Trus Joist, and Vice President of Commercial and Industrial Operations. In early 2005, Kurt succeeded Tom Denig as Vice President of Trus Joist and stepped down as Vice President of Marketing for Level (Weyerhaeuser’s Wood Products division) in 2007. Kurt has served as a trustee for the Riverstone International School, Director of the Lee Pesky Learning Center, and Director of Project Lead the Way.
Jonathan Martin  
Chairman/Chief Executive Officer  
Martin Companies

A native of Ringgold, La., Jonathan is an Industrial Engineering graduate of Louisiana State University. Having worked summers and school vacations for the company, he joined the company’s Castor sawmill full time in 1971 and ascended to management, succeeding his father as company president and CEO in 1994. Jonathan is the grandson of company founder Roy O. Martin, Sr., and son of Ellis Martin, president from 1978-1994.

Anna McCann  
President  
Merritt Machinery

Anna is President and sole owner of Merritt Machinery, LLC. She has 30 years of industry experience and began her career with Merritt Plywood Machinery as an accountant, holding positions of Controller then Vice President before acquiring the company assets in 2008. Anna received her Bachelor of Science degree in Business Administration from the State University of New York at Buffalo. She served as Vice President of the Supplier Division of the Hardwood Plywood Veneer Association and was on the Board of Directors for 10 years. Merritt Machinery manufactures equipment for the production of rotary peeled and sliced decorative veneer and is the U.S. representative for Meinan Machinery Works, Inc., Japanese manufacturers of veneer and plywood machinery.

Jackson Morrill  
President  
Composite Panel Association

Jackson joined the Composite Panel Assn. (CPA) as President in April 2015. He is an environmental lawyer by training with a strong background in environmental law and policy. Before coming to CPA, he served as Director of the American Chemistry Council (ACC), where he managed the Formaldehyde Panel, directing comprehensive state and federal advocacy initiatives, communications, third-party outreach and scientific studies on formaldehyde. He is an adjunct professor at Washington College of Law at American University and prior to ACC, practiced environmental law for five years at Beveridge & Diamond, P.C. He also worked for a number of years as an environmental legal consultant at The World Bank. Jackson graduated cum laude from Tulane Law School and received his B.A. with High Distinction from the University of Virginia.

Dr. Mojgan Nejad  
Assistant Professor, Sustainable Bioproducts  
Mississippi State University

Mojgan’s research is focused on development of lignin-based bioproducts and wood coatings. She has a bachelor’s in Applied Chemistry and Ph.D. in Wood Science from University of Toronto (UofT). She also holds a Professor (status only) position at the Mechanical and Industrial Engineering Department at the University of Toronto, which enables her to co-supervise graduate students working on collaborative projects. She has extensive experience in lignin characterization, modification and is working on development of lignin-based adhesives and coatings in collaboration with different lignin producers.

Jordan Newton  
Vice President of Engineering  
SonicAire/IES

A licensed professional engineer, Jordan graduated from North Carolina State University in 2006 with a Bachelor of Science in Mechanical Engineering. He began his career as a Staff Engineer with Accident Reconstruction Analysis, Inc., where he specialized in forensic engineering. In 2007, Jordan became a Project Engineer with Underwriter Laboratories, where he focused on product certification for firefighting equipment, fire truck apparatus and water quality. While with Underwriter Laboratories, he completed Lean Sigma Green Belt Training. Jordan joined SonicAire/IES in 2010, where he supervises product development, R&D and engineering equipment layout.

Jeffrey Nichols  
Managing Partner  
Industrial Fire Prevention, LLC

Jeffrey has been providing special hazards protection for combustible dust processes and helping protect production and personnel in the process industries from fires and explosions since 1979. He is a Technical Committee Member of NFPA 664, the Standard for the Prevention of Fires and Explosions in Wood Processing and Woodworking Facilities. He has undertaken coursework in Preventing and Mitigating Combustible Dust Fires and Explosions, Combustible Dust Safety Training, as well as Process Safety Management of Highly Hazardous and Explosive Chemicals at Georgia Tech Research Institute; as well as Process Safety and Industrial Explosion Protection from StuvEx, Explosion Protection Fundamentals at Fike Corporation, Dust Explosion Hazard Recognition and Control from The Fire Protection Research Foundation, and Understanding and Practical Prevention of Combustible Dust Hazards in Wood Products and Paper Industries from American Forest & Paper Assn. He has written several articles on spark detection for various publications. He started protecting process and dust collection systems when spark detection & extinguishing systems were first introduced into the United States in the 1970s. He has also accrued expertise in applying a hierarchy of other hazard monitoring, fire and explosion protection systems, as well as combustible dust consulting and training.
Rodney Pennington
VP of Key Accounts
NESTEC

Rodney is a Registered Professional Engineer with more than 40 years of diverse experience in all phases of research, engineering, design, management, sales and marketing of air pollution control and energy conservation systems. He has more than 20 patents, is a published author and speaker and has served as an Expert Witness in regenerative technology. He holds a bachelor’s degree in Engineering Science from Penn State University with honors.

Tyler Player
President
Player Design, Inc.

Tyler founded PDI after many years working in various engineering and maintenance roles at Huber Engineered Woods. He has received U.S. and Canadian patents for his work in combustion, and holds an engineering degree from the University of Maine.

John Robinson
Principal
Drying Technology, Inc.

John founded Drying Technology, Inc. in 1987, based on derivation of a general dryer moisture control model that solved the three main problems with currently-used moisture (MC) sensing and control. Two patents were awarded Robinson for this work. He is a graduate of the University of Oklahoma with a B.S. degree in Chemical Engineering. He gained industrial experience in several process industries and has published and presented numerous technical papers in the field of moisture sensing and control, air pollution control, and biomass energy issues. He resides in Silsbee, Texas where his business is located.

Magnus Rundqwist
V.P. Business Development
Wechsler Engineering & Consulting

Magnus received his Mechanical Engineering degree and master’s (1992) at Chalmers Institute of Technology in Gothenburg, Sweden, specializing in Thermodynamics, Waste to Energy and Air Pollution Control. Before joining Wechsler Engineering in 2012, he was instrumental developing the design and selling of wet scrubbers at Von Roll (later AE&E) and EnviroCare International.

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Rodney Schwartz  
Vice President of Sales - Americas  
B&W MEGTEC  
Rod has more than 15 years of experience in engineering and engineering management, and 16 years in sales and marketing of gas conditioning, air pollution control equipment, and heat recovery systems for the engineered wood and other related industries. In his current position, Rod is responsible for a business segment associated with the sales of B&W MEGTEC environmental products, including scrubbers, wet and dry precipitators (dry ESP, WESP), regenerative thermal oxidizers (RTO), pulse jet fabric filters, solvent recovery and distillation equipment, and selective catalytic and selective non-catalytic reduction (SCR/SNCR) systems into a wide variety of industrial markets. Rod has authored and presented numerous technical articles associated with air pollution control and ceramic heat recovery, and is an active member of APA/EWTA, CPA, AWMA and HPVA associations.

Bijan Shams  
President  
Cogent Industrial Technologies  
Bijan is the founder and President of Cogent Industrial Technologies, one of the top system integrators in North America providing electrical, controls and IT system design and integration services to industrial operations and facilities. Bijan has more than 20 years of extensive experience in the execution of technically complex large projects in multiple industry verticals, with a particular focus on improving plant performance. Bijan has a bachelor’s degree in Electrical Engineering and a Master of Science in Instrumentation & Analytical Science from the University of Manchester in England.

Scott Stamey  
Senior Project Manager  
Mid-South Engineering  
Scott joined Mid-South in 2010, having previously worked as a plant engineer for Grant Forest Products and as a project engineer for CPM. Scott has 17 years of experience working with projects in the building products and biomass energy industries. He is a licensed Professional Engineer with a B.S. in Mechanical Engineering from North Carolina State University, and is currently completing a master’s in Forest Biomaterials from NCSU. His professional background has focused on the wood products industry, particularly oriented strandboard manufacturing and wood pellet production. In his role as a Senior Project Manager with Mid-South Engineering he has overseen the engineering on multiple projects at wood products facilities, including greenfield plant construction from the preliminary stages through startup.

Steve Swanson  
President and CEO  
Swanson Group  
Steve became president and CEO of Swanson Group in 2001. He joined Superior Lumber (now Swanson Group) in 1977 as office manager, after attending the University of Oregon and Umpqua Community College. In 1973, brothers Dean, Rod and Ray Swanson had built Swanson-Superior Forest Products in Notl, Ore. In the 1970s, the next generation of Swansons entered the business, including Steve. This generation took the company to the next level with a series of acquisitions starting in the 1990s. In Glendale, the company bought Gregory Forest Products, a large neighboring mill complex, that included a plywood and veneer mill. After 40 years of producing lumber the Swansons began manufacturing plywood. Swanson Group Inc. acquired another plywood mill, in Springfield, Ore., from McKenzie Forest Products. The Springfield mill went through extensive capital improvements and brought a number of new specialty panels to the product mix making Swanson Group one of the largest and most diverse panel producers on the West Coast. But in late 2014, tragedy struck when fire consumed the Springfield plant. Not to be deterred, Swanson Group is rebuilding this plant and expects to be back online in 2016. Related to this endeavor, Swanson Group purchased Olympic Panel Products of Shelton, Wash. last year.

Luis Tejado  
President  
Blue Drop  
Luis is the founder and president of Blue Drop based in Mexico City. The group has raised money for the creation of several ventures in agroforestry. They purchased the largest eucalyptus plantation in Mexico, and raised $170 million USD thru Proteak to establish the first MDF plant in Mexico. The venture is managed by Proteak. Luis serves as a board member of Proteak. Previously he was CEO of Proteak and was instrumental in raising funds and implementing major teak tree planting and forestry projects through enhanced processes and genetics. Luis obtained a degree in Industrial Engineering from the Universidad Panamericana in Mexico City. He received his M.B.A. from Harvard Business School in 1997. He was COO for Grupo Editorial Expansion, the second largest publisher in Mexico.

Brian Valley  
Director of Industrial Solutions  
Spraying Systems Company  
Brian holds a degree in General Engineering from the University of Illinois and has been with Spraying Systems Co. for more than 18 years. He began his career in Product Development, designing spray equipment used in a variety of industries, with a special emphasis on the commercial printing industry. He has focused solely on the engineered wood industry for the last eight years. As a Director of Industrial Solutions, Brian leads a team of engineers which provides turnkey systems to the engineered wood industry.
Heikki Vidgren  
Principal  
Pöyry Management Consulting

Heikki has 20 years of experience and training within the wood industry and sawmill sector including hands-on experience with sawmills and timber trade companies in Finland, Germany and the UK. He completed his M.Sc. (Eng.) in wood technology and international business at the Helsinki University of Technology in 1999. He joined Pöyry in 2000, and specialized in competitiveness and feasibility analysis, and investments of wood industries. Since 2005, he has worked in the London office of Pöyry and carried out several valuations, commercial and technical due-diligences in the wood industry sector in Europe, Russia, Americas, Africa and APAC. In total, he has carried out valuations, technical assessments or due-dillegences of more than 70 wood industry operations, and visited more than 150 operations around the world.

Dr. Hui Wan  
Associate Professor,  
Forest Composite Products  
Mississippi State University

Hui graduated with a B.S. from Central Southern University of Forestry and Technology in China, majoring in wood utilization. He received his M.S. from the Royal Veterinary and Agricultural University in Denmark, majoring in Agriculture. In 2000, he received his Ph.D. from Mississippi State University, majoring in forest products. From 2000 to 2012 he worked as a research scientist at FPInnovations, the Canadian national forest products research institute, where he worked on research projects in wood composite process and products development, which have widely covered wood chemistry, wood physics, wood mechanics, wood microstructure, resin chemistry, resin synthesis and characterization. He initiated projects like nano-materials in wood adhesive applications and the cross laminated timber project at FPInnovations and conducted projects to diagnose mill process efficiency and improve product qualities for LP, Norbord, Arbec, Tolko, GP, Flakeboard and Uniboard. He served as a trustee of Forest Product Society Eastern Canadian Section and participated in the National Science and Education Foundation of Canada. Since 2013, Hui has been working at Mississippi State University as an associate professor on forest composite products. At Starkville, he continually works with plywood, OSB and particleboard mills to help them upgrade their process and improve product qualities cost effectively. His research includes developing instruments for wax application, blending simulation and recycling.

Tom Wechsler  
President  
Wechsler Engineering and Consulting

Tom received his Bachelor and Master of Science in Mechanical Engineering from the Georgia Institute of Technology in 1985-86. Since then, he has been involved in combustion and energy recovery from waste and biomass. He founded Wechsler Engineering in 2003, a firm which specializes in combustion, boilers and thermal oil in board plants. Tom sits on the NFPA 87 committee, which is responsible for developing thermal oil safety standards.
Chris Whelan
Senior Business Development Manager
Henkel

Chris has more than 30 years of personal experience in construction, structural design and lumber bonding adhesive solutions. Chris entered the world of adhesives with Nacan Products Ltd. (National Starch and Chemical), and coming from the lumber basket of the Pacific Northwest, quickly began to specialize in engineered and non-engineered wood bonding. In the mid 1990s the parent company was fundamental in polyurethane, and working with Chris and his team developed the market of polyurethane for solid wood bonding in North America. From assistance at the idea level, to adhesive selection, application, implementation and support, from the boardroom to the plant floor, Chris and Henkel provide the support and the products needed for bonding modern timber elements.

Wes Younger
Managing Consultant
Trinity Consultants

Wes is Managing Consultant with the Atlanta office of Trinity Consultants, a global environmental consultancy best known for its Clean Air Act expertise. He previously worked in ambient air quality monitoring with Georgia’s Environmental Protection Div. and on field research projects with Georgia Tech. In addition to his career in environmental regulatory consulting, he holds a master’s in Public Policy from Georgia Tech, lending him a rare perspective on the interaction between the regulatory world and the political world when it comes to environmental policy.

Yaqiu Zhao
Global Technical Director
Ashland Specialty Ingredients

Since joining Ashland in 2000 as an Adhesive Product Development Chemist, Yaqiu went on to hold several positions of increasing responsibility including Group Leader, Ashland Performance Materials Gelocat business; Technical Manager, Ashland Structural Adhesives; and now Global Technical Director, Ashland Specialty Ingredients. She holds doctorate degree in Polymer Science from North Dakota State University, and M.B.A. from Fisher College of Business, Ohio State University.
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