RTA Celebrates 100 Years Serving Wood Tie Industry

RTA members gathered at the Hyatt Regency Resort in Bonita Springs, Fla., just outside Fort Myers, Oct. 22-25 for RTA's milestone 100th Annual Conference & Technical Symposium.

Before getting down to business, RTA members and guests enjoyed the Annual Golf Tournament, always a lighthearted yet competitive networking event that brings old friends back together and invites new friends to get to know the group. A fan boat tour was also a popular event, giving the group the chance to experience the beauty of the Everglades.

The Annual President's Reception was held in the exhibit booth area and spilled outside onto a patio where everyone enjoyed hors d'oeuvres, music and a chance to talk with colleagues and friends.

The next morning kicked off early with

the RTA Business Session followed by keynote addresses. The Economic Session offered insights on the impact of the rail supply industries to the U.S. economy. This was followed by the Procurement Session, where a panel composed of sawmill members enlightened on concerns such as trade, supply and labor. The luncheon keynote speaker addressed global market issues. The Class I Engineering and Environmental Forum highlighted major capital investment projects the railroads are undertaking to keep the rail infrastructure strong, improve service and keep products on the move. The Annual Awards Banquet followed and was highlighted not only by the announcement of RTA's award and scholarship winners but also by a champagne toast acknowledging RTA's 100th year in service to the wood tie industry.

On Thursday, the morning kicked off with the Research Session, where attendees learned about stormwater permitting guidelines, creosote



re-registration, new developments in borate treatments and more. This session was followed by an update from the Association of American Railroads and information on biochar as a tie disposal and energy recovery strategy. The always-popular Railroad Purchasing Forum was the final session before the RTA presidency changed hands from Koppers Inc.'s Tim Ries to Gross & Janes's Bill Behan, who will also serve a two-year term.

Annual Golf Tournament

The Annual Golf Tournament is always fun to kick off the conference events, with old friends reconnecting and new ones meeting everyone.



Kenny Dailey looks like he is ready for a good round of golf.



Tony Nichols, Gene Dodson, Glenn Floresca and Robert Guinan take time out to pose







Will Long watches as Gabriel Elizondo looks to see if he will sink the



Hansen and Mike Luvin



representing!



Caric is happy with his shot











John Giallonardo is pretty happy to be on a winning team.

Glass Blowing Experience

A glass blowing experience was a hit with this small group of participants. The artist took time to share the history of the art of glass blowing and everyone came away with their own masterpiece.



Williams shows Betsy Beal how to fire her ornament.





beautiful glass ornament she made during the exclusive glass blowing

Fan Boat Tour

The Fan Boat Tour was a great way to experience the natural beauty and wildlife of the Everglades.





President's Reception

The President's Reception is a lighthearted networking event staged near the exhibit booths. Everyone enjoys catching up during this reception.



Tony Helms is glad to be at the President's Reception.



RTA President and First Lady Tim and Mary Ries alongside Dave Koch.



Blake and Krystal Tucker



grandson, Abel Faith, a.k.a. "Little Brewco," gets the prize for being the youngest attendee at the conference



Kathy Laughlin





















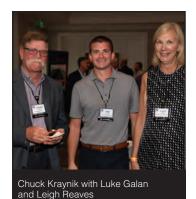
are over, they give their all one final time — as biomass fuel in energy cogeneration plants across the land. From the power of the sun to alternative fuel. Carbon-positive wood ties - what could be more replenishing than that?

> CONTACT THE RAILWAY TIE ASSOCIATION WWW.RTA.ORG TO LEARN MORE ABOUT SOLAR-POWERED CROSSTIES.



Celebrating 100 Years in Service to the Wood Crosstie Industry and Railroads

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Rhonda Hatfield-Jeffers with Stacey and David Hatfield



John and Leigh Reaves with Susan Gauntt



First Lady Mary Ries, posing with George Caric, gives the President's Reception a thumbs-up.



Barry Black with Skipper Beal and Marshall Allen



Ken Peirson with Mike and Liz Russell and Doug Mellott



Sue Peirson with Patrick and Andrea Kirkham



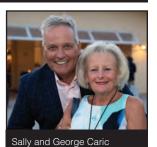
The President's Reception had a great turnout, and the weather was perfect!



John Heller with Gene Dodson and Howard Tomlinson



Kristine Storm with Tod Echler



. 1 'd DTL1 '

Wednesday Morning Sessions

The first day of sessions starts early with RTA business followed by information focused on economics, procurement, engineering projects and more.



Kristen Storm kicks off the morning session with a Safety Briefing



FRA Administrator Ron Batory headlined the first day as the keynote speaker.



Tony Hatch graciously presented again for attendees the first morning.



Chuck Baker of the NRC followed with his presentation.



Brent McLendon from National Wooden Pallet & Container Association.



Nicole Brewin of the Railway Supply Institute finished up the Economic Impact Session.



ated the Procurement Session.

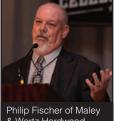


IndusTree

Paul Gaines of Madison County Wood



Derek Douthit of Douthit Tie & Lumber and the RTA Silver Saw Award winner



& Wertz Hardwood

Lumber

Wednesday Business Luncheon

Attendees heard from Jonathan Mackay of Schroders on market issues affecting the industry now and into the future.







Wednesday Afternoon Sessions

On tap for Wednesday afternoon was an address from the AREMA president as well as engineering executives from Class I railroads.



update.











Annual Awards Banquet

The Annual Awards Banquet was a Centennial Celebration gala where RTA awarded worthy students with scholarships and longtime industry executives with awards honoring their accomplishments.



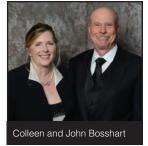


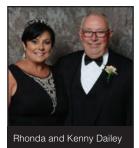
















Incoming RTA President Bill Behan with 2019 First Lady Rhema Behan



Becky and Doug Mellott



Rick Embry with April and Doyle Morgan



Rosalie and Stan Thomas



Cambria and David Woodard



Elaine and Glenn Floresca



Amalia and Gary Ginther



Chuck and Annette Ludwig with Henry Brandhorst



Susan and Howard Tomlinson



Genette and David Whitted



Tony Frey and Kristine Storm



Richard and Melissa Carney



Maureen Hodson



Roberta and Butch Bernhardt



Misty and Brad Crawford



Stephanie Pierce with Shaunda Hite



Colette and Gord Gilmet



Candise and Jason Dallas



John Bosshart, BNSF retired, accepts the Branding Hammer Award from RTA President Tim Ries.



Gene Dodson (left) and Jeff Thomson (right) escort Broad Axe award winner, John McGinley.



Silver Saw Award winner, Derek Douthit (center), alongside his dad, David (left), accepts the award.



Bill Moss, center, pictured with his wife, Jane, accepts the first-ever Supplier of the Year Award, which will be named the William T. Moss Supplier Award from this point forward.

Thursday Sessions

Thursday's sessions focused on a variety of research initiatives undertaken by rail industry suppliers as well as the always-popular Class I Railroad Purchasing Forum.



The morning started with Maureen Hodson of EHS Support.



Patrick Stark of Stella-Jones spoke on behalf of the Creosote Council.



Dr. Jeff Lloyd of Nisus



Tony Chambers of ABC Tie Tech International



Bob Fronczak of AAR gave an update



Henry Brandhorst of CHZ Technologies



Chuck Hegberg and Mike McGolden gave a joint presentation regarding biochar.



Outgoing Executive Committee member and past RTA President Kenny Dailey accepts an award of thanks for his long service to the committee and RTA.



Senior Research Scientist Glenn Larkin of Michigan Technical University addressed the group on his wood protection research initiatives.



Nate Irby from UP wants YOU!



Erin Carson of CSX Transportation



Cory Thomas from BNSF



Bill Blaise of Kansas City Southern



Hamza Founane from Canadian National



Wade Ostrander of Canadian Pacific closed out the session and the day!



RTA's Barbara Stacey awarded the \$100 gift card for the highest score on the conference game to the winner, Jeff Broadfoot.



Newly installed RTA President Bill Behan gives the Award of Esteem plaque to outgoing RTA President Tim Ries.



With the rap of the official gavel by President Bill Behan came the end of the 100th RTA Conference Symposium and Technical Conference.

RTA Conference Exhibitors

The 100th RTA Conference & Technical Symposium would not have been possible without the support of the vendors and sponsors.













Hardwood Lumber Association

Dave Berry, Tim Austin and George Apostolou at the Lewis Bolt & Nut Co. exhibit.



Systems exhibit table.



Mike Goldston of Brewco with David Hatfield and Rhonda Hatfield-Jeffers





Laughlin with the Nisus display.



Jeff Brim at the National Salvage & Service Corp. exhibit.



Barry Black talks with Buddy Downey about his company, Taylor Machine



Lisa Roberts and Jeff Peterson behind the Omaha Track table



and Marshall Allen looking over information from Genics Inc.

Thank you to all of the businesses that helped make the 100th Annual Conference a success!

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TABLETOP EXHIBITS

Brewco Inc. Cahaba Pressure Treated Forest Products **EHS Support Embry Automation** Genics

Lewis Bolt & Nut Co. Lonza Wood Protection National Hardwood Lumber Association National Salvage & Service Corp. Nisus Corp.

Omaha Track Progressive Railroading **Taylor Machine Works** Wheeler Lumber LLC Wood Care Systems

Preserving more than just wood...

Conrad Forest Products

Since the 1940s, Chemonite (ACZA) has been providing top-quality treated wood products for commercial and industrial users. Dual treatments, using both ACZA and borates, are part of our process used for all crossties, switch ties and bridge timbers. Conrad ACZA ties are easy to handle, clean to the touch, and also provide some fire-resistant properties to the treated wood tie.

With three wood treating plants in the West and distribution throughout the region, we can provide a proven, clean and inexpensive choice for American railroads. And, our ties are backed by the nation's only 25-year limited warranty in the industry. Whether by rail, truck, barge or overseas shipping, we get the job done right and on budget.









CHEMONITE ACZA

PRESSURE-TREATED WOOD



New RTA President Reports On Major RTA Initiatives For 2019

Bill Behan, president of Gross & Janes Co., was installed as the Railway Tie Association's new president during the recent 100th Annual RTA Conference & Technical Symposium.

Behan began his two-year term at the conclusion of the conference and in the Q&A article that follows graciously shared highlights from the conference, insight on upcoming RTA initiatives and plans, and information on the 2019 conference slated for Tucson, Ariz.

The 2018 conference celebrated RTA's 100th year of operation, an important milestone for the association and the wood tie industry. Please share some of the highlights of this year's annual conference.

The Centennial Celebration of the RTA was a huge success. I cannot express enough the importance of this milestone for our industry. The industrial, technology and communication developments over the past 100 years are the greatest advancements in human history. To say that the Railway Tie Association has maintained its relevance and importance to the industry during this period is an amazing accomplishment. The railway industry continues to depend upon the core competencies of RTA's professional loggers, sawmills and wood treaters to maintain their single largest capital asset: track infrastructure. The entire U.S. economic business model is dependent upon its existence. The RTA's focus of education, safety and product development continues to add value to the railway industry. We are excited to enter into a

new 100 years of partnership in the industry.

Please address RTA's 2019 legislative priorities.

There will be no change in our focus from a legislative perspective. We participate in supporting the railroads, wood protection and our hardwood base with fly-in days to D.C. whenever they happen. Railroad Day on the Hill will be in May this year, and we expect the Hardwood Federation fly-in day to occur again in September. With any luck the 45G Tax Credit for short lines, supporting extra annual tie demand of nearly a million ties, will be permanent by the time people read this. If not, that will be task No. 1 in 2019. Opposing larger trucks and weights continues to be a major focus as does fixing the NHSM rule for end-of-life ties. A host of hardwood issues will also be in the crosshairs.

Are there plans for RTA to participate in any major research projects?

This year RTA participated in the most research projects in its history, including the continuation of the RTA-AWPRP alternative wood preservation research project and, of course, work done on four separate cooperative economic impact studies, which we will discuss more in 2019 and were watershed moments for RTA. We expect no more further work on economic impact studies in 2019, but the wood protection research will continue as will all the economic work we are beginning to highlight with the new format of the production report. There are



exciting changes in the presentation of our important data reporting coming soon.

The Procurement Session at the conference is always enlightening. What were some of the key points learned from the sawmiller panelists?

Most USA hardwood crosstie production comes from independent operators, not large public companies as seen in softwood production. As such, these sawmills face many business challenges that require their direct, "hands-on" action. Many hardwood sawmill owners face international tariff issues, labor shortages, trucking constraints and rising raw material costs. These issues are enough to intimidate any business, yet sawmills continue to thrive through tough periods. We have lost sawmills through attrition, yet production enhancements and new yield technology continue to meet demand. Much like the 100-year survival and relevance of RTA to the rail industry, the sawmill industry has morphed to survive and provide the necessary products.

Will RTA leadership and staff continue its efforts to meet with railroad groups?

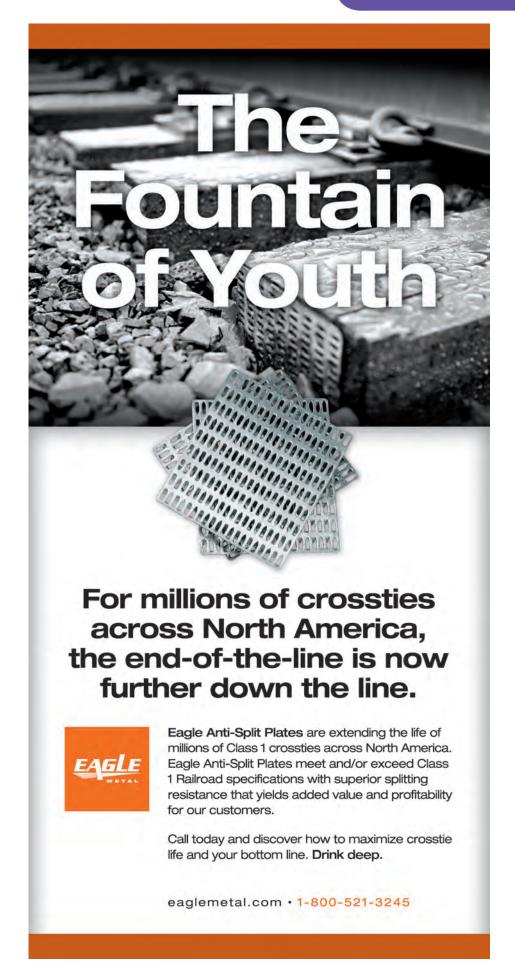
I have 100 percent confidence that RTA will continue to be "The Industry Resource" for all railroads, contractors and railway suppliers. One hundred years of dedication and service to the industry do not happen by accident or by good luck. RTA's headquarters team makes great efforts to provide important and timely production, inventory and economic data and supports ongoing product research and development to benefit all stakeholders. Legislative matters and their required action by our membership would be impossible without RTA's direct input. These are just a few initiatives that assure RTA's continued importance for the industry.

What do you see as some of the greatest opportunities for members of the wood tie industry in 2019?

The 2019 crosstie procurement plans for nearly all Class I customers will be stronger than the previous two years, though the road may appear rocky at first glance. Low inventory levels that resulted from previous Class I buying practices will assure opportunities for crosstie producers. Once producers know there will be sustained purchase volume, they have greater comfort in investing in their own operations. This includes long-term raw material procurement and capital investments at their sawmill. Like any entrepreneur, sawmill owners seek sustained periods of certainty when taking measured risks and investing in their own businesses. The strong U.S. economy, tax incentives and positive rail car movements all equate to strong immediate and future crosstie demand.

With next year's conference being a continuation of RTA's centennial celebration, could you share any anticipated highlights?

The RTA Executive Committee is committed to planning our future through innovation and gathering new information for the benefit of our membership. This includes planning not only for an eventual transition (see page 7) of executive leadership but also gearing up for a superb 101st annual conference in Tucson, Ariz., next year at the Loews Ventana Canyon Resort. We will continue to recharge the event with new ideas and, of course, plan a theme worthy of the next steps in RTA's centennial. I also look forward to engaging even more producer members at the sawmill level not only at the conference but also throughout the year.



Presenters Share Knowledge & Expertise With RTA Conference Attendees

Experts from all facets of the railroad and wood tie industries served as presenters at RTA's 2019 Conference and Technical Symposium, held recently in Bonita Springs, Fla. Presenters shared their insights and knowledge about challenges and opportunities within the industry and offered thoughts on upcoming developments. Below are excerpts from their presentations.

KEYNOTE SPEAKERS Ronald Batory, Federal Railroad Administration Safety and innovation must be coupled

Safety and innovation must be coupled together. Other transformative technologies



await us. Each day is an opportunity to embrace technology to reduce risk. Each of you has a unique opportunity

in that what you do today will determine success for tomorrow. It is a must that we strive to make a positive difference in safety.

Anthony Hatch, ABH Consulting

The health of the railroads is tied to big capital spending, and we will see



spending go up in 2018, with ROI exceeding the cost of capital. Investors and shippers and government

need to understand capital spend is necessary. If ROI exceeds the cost of capital, rewarding capital spending, you see the development of a stronger physical plant with more and better equipment and faster and more reliable service.

ECONOMIC IMPACT SESSION Chuck Baker,

National Railroad Construction & Maintenance Association

Pricewaterhouse Coopers (PwC) reported that 478,000 employees are directly



dependent on good short line railroad service. There was \$56 million in value add to the economy because of short

lines. Railway tie purchases have increased since the enactment of 45G by 6.3 percent (PwC verified data presented by RTA).

Your data, your support was absolutely crucial in development of this report.

Brent McLendon, National Wooden Pallet & Container Association

The wood packaging industry is worth \$31 billion to the U.S. economy, directly



employing and supporting more than 173,000 jobs. Every day, close to 2 billion pallets are used in the United States alone. More

than 90 percent of all products move around the U.S. on wooden pallets. The wood pallet and railroad tie industries are absolutely connected, and we need an open forum at our meetings where we can address issues.

Nicole Brewin, Railway Supply Institute

We commissioned the Railway Supply Economic Impact Study to track the power



of rail supply. It's the first-ever comprehensive look at railway supply industry economic impact across the country.

Each year, rail suppliers contribute \$74 billion to the U.S. GDP, support 650,000 jobs across the country, and account for nearly \$17 billion in federal and state taxes The sawmills and wood preservation sector employs nearly 3,700 workers to directly support the railway industry.

PROCUREMENT SESSION

Dana Cole, Hardwood Federation

Trade has been a fascinating issue for us this year. It's something that hadn't been a problem before in our industry. We



export about 80 percent of our hardwood products, about 60 percent of which is grade lumber. The destination for

the vast majority of our products has been China. The new NAFTA agreement looks like it will be moving forward to bring some stability back into the markets there. Our mills have had a terrible time keeping their orders going. There's real concern that if this downward trajectory continues there could be repercussions throughout the industry.

Larry Jones, IndusTree

We're getting ready to build a brand new mill and tear down an old one. We're



going to employ optimization and efficiencies and cut the workforce in half. The problem is that you've got to

have enough scale to justify the cost of all those optimizations and electronics. There are a lot of guys like us trying to make a difference and be as efficient as we can.

Paul Gaines, Madison County Wood Products

Issues we are facing include the lack of available workforce, few residual markets,



competition for timber resource, and limited capacity for logging. Retention is another issue. We have to look hard to

advertise and find good people. Residuals are another concern. We have one customer for hardwood chips, and we're creating over 100 tons a day. If we lose that customer, we would have to find another market.

Derek Douthit, Douthit Tie & Lumber

We're doing whatever we can to survive. Whatever we can do to make money. If it's



selling crossties, whatever it is, you've got to have options. Our biggest problem we face is labor. We are also concerned

about costs of logs coming in and the sale of sawdust and chips and bark. The last couple of years, we have spent money just to get rid of the residuals. It's just sitting there, and continues to be a problem. Log prices in our area are another concern.

Philip Fischer, Maley & Wertz Hardwood Lumber

I feel one of the biggest issues we have overlooked that will have an impact on this asso-



ciation for generations to come is log exports. The Chinese are relentless. They will come back at us. This association must take

the lead and get affiliated groups together

to fight this. When log prices come down so low they will pass the sawmills and go straight to the loggers.

LUNCHEON KEYNOTE Jon Mackay, Schroders

This is likely to become the longest expansion on record for the United States. A



handoff is taking place from U.S.-led growth to more synchronous global growth. This should lead to a weakening

U.S. dollar and more equal performance for global assets. China and the United States will eventually reach a deal. Volatility will rise as Central Bank balance sheets shrink. The extra innings won't be easy. China and the U.S. will eventually reach a deal. The deal will be marginally better than it was before.

CLASS I ENGINEERING & ENVIRONMENTAL FORUM Jim Kessler, North Carolina Railroad Company & AREMA

The 2019 AREMA Annual Conference in conjunction with Railway Interchange



(AREMA, RSI, REMSA and RSSI) will be held in Minneapolis, Minn., Sept. 22-25, 2019. The 2020

AREMA Annual Conference & Expo will be held Sept. 13-16, 2020, at the Hilton Anatole in Dallas, Texas. Web-based courses and seminars on bridge inspection and other professional topics are among AREMA's 2019 initiatives. We are excited about growth in student involvement. AREMA has 24 student chapters across North America, and student involvement at AREMA Annual Conferences has grown tremendously.

Rachel Beck, Union Pacific

We currently use Ground Penetrating



Radar installed on UP geometry cars to collect data on subgrade and ballast degradation at high

speeds. We are working to develop an autonomous inspection strategy. These cars are programmed to run track by themselves and give the same amount of data as the traditional geometry car. We would like to have both manned and autonomous equip-

ment as part of our inspection fleet of the future.

Matt Hammond, BNSF

BNSF's infrastructure in the best shape ever. Capital investment continues to be



strong. More than ever, we continue to use data and technology to make sure we are putting capital dollars where they will

make the most impact in driving efficiencies. Our partnerships with suppliers, consultants, and researchers drive innovation..

Tod Echler, CSX

We expect to install 2.8 million ties in 2018. We do struggle to get some of them in.



We're still doing about 24,000 bridge ties and plan to do that again next year. The Virginia Avenue tunnel reconstruction

project, by the end of this month we will be 99.9 percent done with the entire project. It's a good project coming to an end.

Michael Singelyn, Canadian National Railway

We (CN) are seeking more cradle to grave, cradle-to-cradle and innovative non-



landfill disposal solutions like biochar, pyrolysis and creosote extraction for scrap tie disposal. We are trying to figure out if

railroad ties can be turned into biochar. It has many different uses. We're exploring supply chain disposal options with new tie vendors so we can strategically be getting rid of scrap ties.

RESEARCH SESSION

Maureen Hodson, EHS Support

The current regulatory scheme of industrial stormwater permitting is accomplished



through EPA or state-issued general permits. Monitoring of stormwater is typically required for arsenic, copper and

TSS with established benchmark values. Benchmark values for TSS are difficult to meet. A proactive approach to managing and controlling stormwater will limit future business risks to the industry.

Patrick Stark, Creosote Council

Creosote Council III is a national, non-



profit, FIFRA joint data development and product stewardship organization composed of all five North

American producers/importers of creosote registered in the United States. During the past 30 years, the council has developed worker safety and other data required by the US EPA for continued registration of creosote as a wood preservative. One of the data requirements was to provide EPA with information on worker exposure to creosote in wood pressure treating plant operations. The first Worker Exposure Study was completed and submitted to EPA in 1999 as part of the Reregistration Review (1986-2011). The second study was started in 2016 and completed and submitted to EPA in January 2018. Creosote Council believes the dermal and inhalation results, when compared in the two studies, indicate the positive effect of engineering controls and PPE required by the Creosote Wood Preservative Registration Eligibility Decision (RED) issued by EPA in 2008, thus reducing exposure to workers with the new requirements under the RED.

Jeff Lloyd, Nisus Corp.

In the sawmill pre-dip three-step borate process, ties are treated again but right up front.



When they very first cut the tie and before it's processed, they'll dip their ties in a 10 percent borate loading. They are trying

to fully protect the ties during storage while waiting on transportation and especially protect the tie during rail transportation. This new pre-dip process is suggested for green ties that ship on rail. There is always a better mousetrap.

Tony Chambers, ABC Tie Tech International

Our research shows that with borate rods that are 96 percent concentrated borate



applied in ties with well over 50 percent moisture content, you get good diffusion. You do not lose borate during Bolton

conditioning. There is the potential to reduce porthole depth. No special tools are required. Borate rods can be applied at the treating plant or out in the field.

AAR UPDATE & BIOCHAR RESEARCH FOR TIES

Bob Fronczak, AAR

EPA has concluded that the burning of railroad ties for energy recovery is legitimate.



Treated wood is a renewable fuel that increases overall efficiency of cogeneration. If substantial numbers of ties are excluded

from the scope of what can be burned for energy generation, the result will be an increased use of non-renewable fuels and increased greenhouse gas emissions. If ties are not allowed to be burned for cogeneration they will be landfilled instead. Degraded ties will produce methane. EPA should encourage the widespread use of railroad ties as fuel, rather than restricting that use.

Henry Brandhorst, CHZ Technologies

We have a big problem with scrap railroad ties. In 2016, 18,430,000 crossties were replaced, with 98 percent of ties treated



with creosote or creosote/oil blends. Other approved standardized preservatives include copper naphthenate, borate and

pentachlorophenol. Currently, these items are simply accumulating with no means of safe disposal, i.e., incineration emissions are dangerous. We believe there's a better way. U.S. wastes can replace electricity from coal and gas. The Thermolyzer process is a technology that has broad applicability. It's continuous, self powered, indirect heating, oxygen free, low pressure, destroys all toxic compounds, and clean emissions and synthesis gas are generated that can be used directly in gas turbines.

Charles Hegberg/Mike McGolden, **Biochar Consultant/CoalTec Energy**

As environmental regulations become tighter, everyone is looking for ways to dispose of their residuals. It's not a



railway tie problem, it's not a U.S. problem; managing nutrients and residuals is a tremendous problem for the world. Biochar is sequestering carbon permanently. Biochar is taking a former waste stream and upcycling it to produce

something of value for yourself or others.

RAILROAD PURCHASING FORUM Kristine Storm.

Genesee & Wyoming

Our 2018 Engineering and Mechanical spend allocation is approximately 40 percent ties. For 2019, our crosstie program will be 97 percent hardwood, 3 percent softwood, 80



percent grade and 20 percent industrial grade. Our 2019 forecast calls for 850,000 EA wood crossties, 750,000 BF

switch timbers, 1 million BF bridge timbers and 100,000 BF of crossing timbers.

Cory Thomas, BNSF

Our 2019 tie replacement program is looking like it's down about a half a million ties from 2018. From about 2.8 to about 2.3 million. Basically, from my perspec-



tive, that's a good news story. BNSF's infrastructure is in as good a condition as it has ever been. We expect a little

bit of a bounce back going forward, but we're in really good shape for next year.

Nate Irby, Union Pacific

Union Pacific is planning a robust capital plan of about \$3.3 billion, with infrastructure replacement representing 60 percent. Safety is a top priority for the railroad,



with reportable injuries per 200,000 employee hours down 54 percent. Our future estimated tie demand is 4 million ties,

including 400,000 concrete ties. We've had a tough year so far, and we are going to need help from the people in this room. In the past you've been able to respond, and we very much appreciate that.

Erin Carson, CSX Transportation

For 2018, we planned for 2.9 million ties but will end year with 2.7 million. For 2019, at a minimum, we're going to purchase 2.8 million crossties—80/20 mainline/



branchline. 2018 was quite an interesting year for CSX. At the end of 2017, about a month after I came into this role, we

switched from a green tie program to a black tie program, and I got to dive into the industry really quickly. Throughout 2018 we were also working through a large inventory. However, we have met our inventory

targets, so our purchasing should start normalizing now. CSX has historically been and will continue to be a wood tie railroad.

Bill Blaise. **Kansas City Southern**

Our overall spending for 2018 will probably be down from \$10 million to



\$30 million, which is related to some prior projects that are non-recurring, such as slowing down on PTC and

some other major investments. Our focus next year will be on capital with regard to infrastructure. Half of our capital spend is maintenance, and we feel it's important to stay current with that. Our five-year wood tie program looks like this: in 2018, 554,000; 2019, 656,000; 2020, 661,000; 2021, 665,000; and 2022, 655,000.

Hamza Founane. **Canadian National**

Our long-term focus is continuous improvement. Our concerns are the increase



of green tie pricing for the last 12 months, security of supply, absence of major innovations and cost reduction

initiatives in the wood tie industry, and shorter life cycle in some deterioration zones. We are using some concrete ties for new construction projects and composite ties in higher deterioration zones.

Wade Ostrander, Canadian Pacific

The goal is to source and install 1.2 million new ties annually. The challenge is to maintain service and exceed



customer expectations. The plan is to engage our operations and vendors. In 2018, we are on target

to have more than 1 million scrap ties removed. We are transporting scrap ties on 90 dedicated gondolas. Our scrap ties create electricity, help municipalities reduce garbage in landfills, make valued chemicals and generate energy for steel production. We areworking with a facility near Hamilton to utilize our scrap ties as a renewable supplement in their coke production process. It's a successful program that we plan to grow.