AICHE EAST TENNESSEE LOCAL SECTION

Issue 2

# THE PIPELINE



### LETTER FROM THE CHAIR RACHEL MCLENDON

It's hard to believe we are over halfway through 2017! The East Tennessee Local Section has been busy with a variety of activities ranging from community outreach to a young professionals' trivia night downtown and of course, our monthly programs. While we have taken a break from our

programs for the summer, our local section has remained active. The Outreach Committee had their annual Oobleck demonstration at the FunFest Mini Maker Faire, Young Professional the hosted a baseball night, and planning has continued for Fall programs and activities.

If you would like to become more involved with any of our activities, we welcome you to contact any of our committee chairs or executive team members for more information; contact information can be found at the end of this newsletter.



## PROGRAMS

2016 - 2017 Program Schedule

Coal Gas Expansion	Joseph Bays	December 1
Tales of a Century: Kingsport, TN	Ken Marsh	January 18
Flint Water Crisis	Laurel Strom	February 15
USEPA Region IV Air Quality Update	Carol Kemker	March 14
Energy Efficiency: It's Only Natural	Sharon Nolen	April 13
Insensitive Munitions	Brian Alexander	May 16

## Watch for more informative programs coming this year!

### DECEMBER PROGRAM SUMMARY COAL GAS EXPANSION

Joe Bays provided a historical overview of the Coal Gas Expansion in the year of its 25<sup>th</sup> anniversary. He presented background on why the expansion took place, how it was implemented, and where Coal Gas stands today. He, and many others in the room, were personally involved in this effort.



#### JANUARY PROGRAM SUMMARY TALES OF A CENTURY: KINGSPORT, TN

Ken Marsh, born in Kingsport, Dobyns Bennett graduate, Eastman Retiree, former Alderman for Kingsport (1999-2011), history buff, and involved community member, gave his unique perspective on the early history and development of the city of Kingsport in this, the city's 100th anniversary year.

on named George L. Carter, a New York finance firm named Blair and Company, and the country of Germany. In order to have a market for his coal fields, George L. Carter convinced Blair and Company to finance the railroad. To bolster demand for his coal, Blair and company recruited and started industries in Kingsport. The young city was boosted by the need to replace German chemical imports during WWII.

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A transcript of the talk can be found on the AIChE East Tennessee Section website below. Check it out!

https://www.aiche.org/ community/sites/localsections/east-tennessee/files/

Ken described how Kingsport came to be in the early 20<sup>th</sup> century because of a coal bar-

jan-2017-program-ken-marshtales-century-kingsporttennessee

#### FEBRUARY PROGRAM SUMMARY

#### FLINT WATER CRISIS

The Flint, Michigan water crisis spring boarded to national attention in 2015, when high levels of lead were found in an analysis of city tap water. Graduate research teams from Virginia Tech were instrumental in exposing and documenting the ongoing lead crisis, as well as educating citizens of Flint, MI and the rest of the US about the dangers of high lead in drinking water. Laurel Strom visited the Kingsport site to discuss the focus and findings of the Virginia Tech research teams working in Flint, MI.

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Numerous topics were covered, including testing techniques, resident sample collection training, findings, results, and where more work is yet to be completed in the ongoing epidemic.

#### MARCH PROGRAM SUMMARY

#### USEPA REGION IV AIR QUALITY UPDATE

Carol Kemker, the Deputy Director of the Air, Pesticides and Toxics Management Division of the US EPA, came to give an update on air quality and on many of the evaluations and recommendations the EPA is currently working on in this region.

## April Program Summary

### ENERGY EFFICIENCY: IT'S ONLY NATURAL

Nolen Sharon presented Eastman's energy strategy. Eastman has been an ENERGY STAR Partner of the Year for 5 years and has joined the Better Buildings, Better Plants program with the Department of Energy (DOE) and declared goal to reduce energy а intensity by 20%. To achieve this, Eastman developed a multifaceted energy strategy with three principles: 1) ensure utility information maximize accuracy, 2) operating efficiency, 3) incorporate energy efficiency in capital investments. The energy team also increased employee awareness through and newsletters, events leveraged DOE and ENERGY STAR resources, developed initiatives, and executed projects through a dedicated energy budget. With these .....

programs, Eastman is on track to meet the their ambitious energy intensity goal.

The energy program was so successful that a similar program has been initiated to address water resources. The water strategy is similar to energy, but it is location dependent. Eastman started with identifying sites in waterstressed regions and sites with more expensive water resources. Efforts are focused improving water on awareness, funding early projects with large benefits, sharing best practices, and leveraging resources from ENERGY STAR and the Better Plants program.

Eastman has been using energy resources efficiently through a combined heat and power (CHP) system since the 1920s. The CHP system is 70% efficient compared to 40% from a power plant. Longview and Indian Orchard sites are also CHP, so 87% of Eastman's worldwide production is from co-generated power. Sharon discussed the challenges of balancing a CHP system and highlighted on-going projects at Kingsport to maintain and improve energy efficiency.

She finished the talk by announcing Eastman won the ENERGY STAR Partner of the Year award for 2017, the 6th consecutive year of winning this award!

Check out her talk below! https://www.aiche.org/sites/ default/files/

community/160956/aichecommunity-site-files/423761/ aiche-eastmanenergy04-12-17.pdf

#### MAY PROGRAM SUMMARY INSENSITIVE MUNITIONS

Brian Alexander, Principal Scientist for BAE Systems at the Holston Army Ammunition Plant, delivered a presentation overviewing the BAE site and updated us on the recent expansion of insensitive munitions. He took

us through much of the fascinating history of the site and through an outline of the various munitions the plant produces. He also shared explosive clips from some of the research they have been conducting. He explained the benefits and needs our military has for insensitive munitions and explained the massive expansion that is taking place to produce them. This program was certainly energetic!

## YOUNG PROFESSIONALS COMMMITTEE



AIChE Young Professionals teamed up with other young professional organizations in the area for a combined mixer. The event was held with PEAK and YPTri with over 150 participants to enjoy America's favorite pastime. Our group had exclusive access to the Perch which gave front row access to cheering on the Johnson City Cardinals. It was a relaxed and fun opportunity to network not only with chemical engineers in the area, but also people with different backgrounds.

The 4<sup>th</sup> annual Salsa Night is the next event on the docket. Be looking for the date release soon!

IF YOU HAVE ANY SUGGESTIONS OF EVENTS FOR THE YOUNG PROFESSIONALS COMMITTEE, OR IF YOU KNOW OF VOLUNTEER OPPORTUNITIES FOR THE YPC, PLEASE CONTACT ERIN EKART AT ERINEKART@EASTMAN.COM.

## OUTREACH COMMITTEE EVENTS

#### WASHINGTON ELEMENARY SCHOOL VISIT

In April, the AIChE Outreach Committee visited Washington Elementary to discuss topics including different states of matter, conductors, and thermal insulators. The presentation was followed by a few interactive demonstrations. The students learned about the different weights of gases, the life cycle of water, and dry ice. Of course, an AIChE event would not be complete without some oobleck, so we ended our visit by teaching the students about non-Newtonian fluids and letting them play with tubs of oobleck. Even the teachers got their hands dirty!



IF YOU ARE INTERESTED IN HELPING THE OUTREACH COMMITTEE WITH VOLUNTEER WORK, OR IF YOU HAVE AN IDEA FOR AN OUTREACH EVENT, PLEASE CONTACT NICK CORZO AT NICKCORZO@EASTMAN.COM.

## 2017 LOCAL SECTION OFFICERS, DIRECTORS, AND SUPPORT STAFF

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### VISIT US ONLINE!

#### WEBSITE

http://www.aiche.org/ community/sites/localsections/easttennessee

All past presentations are available on our website!



AIChE East TN

## Linked in

https://www.linkedin.com/ groups/8520379