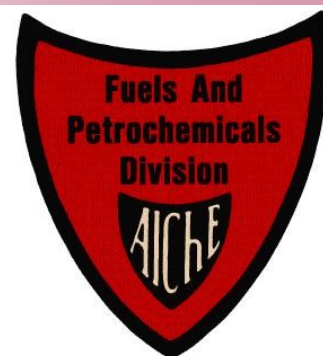


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Flashpoint

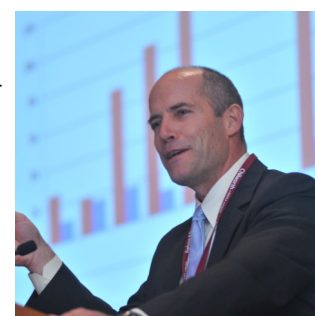


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Dan Romasko, Exec. VP Operations, Tesoro Gives Keynote Address at F&PD Welcome Session

On April 29, 2013, Dan Romasko, Executive VP of Operations, Tesoro gave a presentation entitled "The Resurgence of Manufacturing in The US" at the F&PD Welcome Session, AIChE Spring Meeting in San Antonio, TX. The welcome session started with a coffee break, sponsored by Mustang, a welcome and update on the Division, provided by Lori McDowell, incoming F&PD Chair, and then Dan was introduced by current Programming Chair, Belma Demirel. About 250 meeting attendees were at the welcome session and all agreed that it was a great session. After Dan's talk, Tim Olsen, outgoing F&PD Chair presented Dan with a plaque and an AIChE Fleece Jacket as a thank you gift!



Dan's presentation focused on the story of the fuels and petrochemicals industry, starting with where we came from, where we are today and looking ahead to the future. Five years ago, the US was heavily dependent on foreign oil, natural gas was in short supply and was very expensive and the US was heading into a recession. There was fear over dwindling crude reserves, legacy technology was in play and demand was growing in emerging countries like India and China. Production costs were on the increase, and less stable nations were relied on to provide crude oil. Today, many things have changed. New production techniques have made non-conventional crude supply cost competitive (shale oil shale gas and oil sands), the US is approaching energy independence and global trade flows have changed significantly. Natural gas is in abundance and prices have reached record lows in the US. The future looks even brighter for the US manufacturing industry. Significant volumes of shale oil and gas are available to produce, this supply of domestic crude has reshaped the trade balance for the US and increased natural gas continues to provide a lower cost manufacturing advantage for the US. US employment is on the upswing, but, public scrutiny and political risks have increased. Overall, Dan's presentation showed good things for the US Manufacturing Industry, but he reminded us that things could still go wrong due to over-regulation, irresponsible practices, environmental issues and changes in global demand. He encouraged us that the opportunity was there for the taking and that chemical engineers needed to step up to meet the challenges.

Fuels and Petrochemicals Programming Update

The spring meeting in San Antonio took place in April of 2013, with F&PD playing an active role as usual. This particularly well attended meeting featured F&PD programming in core areas of refining, petrochemicals, and gas utilization. With the growing interest in shale gas and oil, a panel session was held to explore processing and environmental issues involved in production of shale oil. This topic and format were well received, such that both will be featured more prominently at the 2014 Spring Meeting.

The upcoming [annual meeting](#) is taking place this fall in San Francisco. F&PD will have an active presence through co-sponsorship of 34 sessions, many dealing with alternative fuels and chemicals. We encourage you to attend to get a better sense of what is going on in cutting edge academic work.

New Orleans is hosting the [spring meeting in 2014](#). As this venue is in the heart of our industry, we expect a strong turnout. F&PD's own Tim Olsen is serving as MPC for the

meeting. We are planning on a number of sessions in our core areas of refining, petrochemicals, and gas utilization. We are scheduling a number of new topics (or more recent topics, with additional emphasis) such as shale oil and gas, infrastructure issues impacting the refining and petrochemical industries, and petrochemicals such as C3s-C5s. The meeting will have a focus area on shale oil and gas and F&PD will play a key role. [Calls for papers](#) have been issued.

As always, we are looking for new blood to help with programming, and it is not too late to get involved with Spring 2014 programming. If you have a particular interest in a topic being offered, are looking for a way to get more involved in AIChE and F&PD in particular, or are just looking for an excuse to convince your boss to let you spend a few days in New Orleans, feel free to reach out to me (programming@aiche-fpd.org) or any of the programming chairs.

Best F&PD Paper Award at Spring 2013

Randy Stier (Valero) and John Miller (Emerson) received recognition as the "Best Paper in the Fuels and Petrochemicals Division" for their paper [Detecting Loss of Flame in Oil Refinery Fired Heaters Using Advanced Pressure Diagnostics](#). The paper describes recent technology collaboration between Emerson and Valero utilizing Rosemount 3051S Pressure Transmitters with Advanced Diagnostics in draft installations to monitor and give an early indication of flame instability.

Mike Schultz. LanzaTech



F&PD High School Scholarship Application

The F&PD will be sponsoring again this upcoming school year our future engineers and scientists by awarding scholarships to exemplary high school seniors who plan on studying engineering or science. We encourage all F&PD

members that if they are presented with any opportunities during the upcoming fall to speak to high school students, or have contacts to the schools in your community, to help us make them aware of this scholarship opportunity.

The Chair's Corner

Lori McDowell, F&PD Chair and Director, Business Development, Matheson



This is my inaugural F&PD Chair's Corner, since I started my term as F&PD Chair in April. I am excited about serving as chair of F&PD for the next year and want to thank everyone for entrusting me with this important position. With so much going on in the Fuels and Petrochemicals Industry, I am hope full that our Division can mirror the growth that is occurring in the Industry. I have been a member of AIChE and F&PD for over twenty years, and this is the first time in that period where I am really seeing growth and excitement in these organizations.

Shale gas, shale oil, tight oil Keystone pipeline, reformulated fuels, corn ethanol, ethane crackers, RFS, RINS, climate change, energy independence, fracking— for the first time in many years, these common terms to chemical engineers working in fuels and petrochemicals are appearing in everyday conversations and in mass media. Chemical engineers are looked at for their expertise and advice at cocktail parties and restaurant openings, not just at conferences and on the job! Chemical engineers are suddenly “en vogue”. It wouldn't surprise me if Nordstrom's featured a line of Nomex apparel! It is a great time to be a chemical engineer! Unemployment for chemical engineers is very low, opportunities for advancement are many, and those chemical engineers that worked in other fields are now looking at energy, fuels and petrochemicals as the field of choice.

In addition to being a great time to be a chemical engineer, it is a great time to be a Fuels and Petrochemicals Division member! Why? Because the fuels and petrochemicals fields are leading this chemical engineering renaissance! We have the expertise, the experience, the on the job training and the vision to help the chemical engineering field grow, to move the US towards energy independence and to meet the challenges that face our industry. And as one of the oldest divisions of AIChE, F&PD wants to embrace these challenges and take the leadership role—we want to grow our membership, and we want to give our current members more opportunities to lead, to participate and to make a difference.

As chair of this division, I have a number of goals for the year, and I would like everyone's help in achieving these goals. My goals lie in three areas – membership, communications and marketing, and innovative programming.

Membership – I want to grow our membership, we have had close to 1000 members for many years and I'd like to get to 1200, 1500 members. I want to increase the diversity of our members in age, race, company type and job function. To achieve all this, we need to make sure that we are offering our members the benefits they need and value – so tell me, what member benefits would you like that you are not receiving, and what benefits do you currently find valuable? – I want to hear from all of you!

Communication and marketing – just as our industry is undergoing a revamp, our division needs one as well. We are looking for a new Division logo (more details to come), a new face of the division, new ways to communicate and new ways to market. We can't just communicate with our membership, we need to communicate with companies, executives and the industry as a whole. When companies see the value of F&PD, they will encourage their employees to join and participate.

Innovative programming – those who have attended recent Spring AIChE meetings have experienced some of the great programming that F&PD has produced, but many cannot attend these meetings. We are looking at ways to program outside of the Spring and Annual AIChE meeting, as well as innovative ideas for programming at these meetings. The Shale Gas panel held at last year's Spring meeting and the Shale Topical planned for next years' Spring meeting are just two examples of this, but many more are coming.

So how can you help? Volunteer are always welcome, you can serve on committees, write an article for Flashpoint, chair a session, present a paper, or even run for an office. But even if you don't have time to volunteer, we still need your help! Speak up, let us know why you are an F&PD member, what you like, what you don't like, what you want. Contact me at chair@aiCHE-fpd.org. In future Chair Corner articles I will touch on key topics affecting the fuels and petrochemicals Divisions, and hopefully my next time I can focus on all the great suggestions I received, as well as how my inbox is overflowing! Until then, enjoy this ChE and F&PD renaissance and have a great summer!

Lori

Join Us in Galveston in October at the 5th AIChE Southwest Process Technology Conference

This year will be the 5th Southwest Process Technology Conference (formerly the Regional Process Technology Conference). In its first four years the conference has established a solid reputation within the process engineering community, attracting between 340 and 400 participants each year. With participation from the largest concentration of petroleum refining, chemical processing, and engineering and construction firms in the United States, this conference is a great conference for all in process industries.

To further increase the impact of the conference, a Student Program is being added to the conference this year. It will have one day of programming on October 4 that will include a mentoring session where students can ask seasoned engineers about industry opportunities and challenges, and a Career Fair to assist students identify employment opportunities. **by Ian Michael Glasgow, Mustang**



Shale Oil and Gas Panel Q&A Session

A panel discussion on Shale Oil & Gas sponsored by AIChE Fuels and Petrochemicals Division and the Environmental Division was held at the AIChE Spring Meeting on April 30, 2013. The panel provided an open forum for discussion of the technical challenges and issues related to the implementation of Shale Oil and Gas technology. The intent of the panel discussion is to exchange information and ideas as they relate to the Shale Oil & Gas industry. Approximately 100 AIChE members participated in the question and answer discussions.

The panel consisted of a cross disciplinary group of engineers, scientists and industry counsel who shared their experiences with the latest technologies, policy developments and business implications associated with the growing the shale oil and gas industry. The panel was composed of the following members: Cal Cooper from Apache Corporation, Chris Shindelacker from Arcadis, Mary Ellen Ternes from McAfee & Taft, and Cameron W. Remelje from BHP Billiton. The moderator for the panel was Rick Isherwood from UOP LLC.

Each panelist gave a short introduction outlining their experience and expertise in the Shale Oil and Gas industry and then the panel proceeded to address questions from the audience. The panel fielded questions covering a wide range of topics relating to im-

plementation of Shale Oil & Gas technology and emerging issues from an enthusiastic audience for over 2 hours. The subjects discussed included water resources, best practices in the shale oil and gas industry, plant construction issues, shale gas utilization, legal developments, equipment uses, environmental challenges, conversion options, leading services and technologies, and other related issues.

The Fuels and Petrochemicals Division and the Environmental Division would like to thank the panel members for sharing for participating in the event and their expertise with their fellow other AIChE members, AIChE and Lauren Deitch for their programming support, and Lori McDowell, Bill Rooney, Virginia Brown and Saadet Ackigoz for logistical assistance.



Thanks to Shariq Yosufzaifor Supporting Future Chemical Engineers

The Fuels & Petrochemicals Division (F&PD) would like to acknowledge Shariq Yosufzaifor (Vice President, Global Diversity Chevron Corporation) for the donation of his award to the F&PD scholarship fund. Shariq is the 2013 F&PD Award of Excellence winner from this past AIChE Spring Meeting in San Antonio. He is a Fellow of AIChE and stated that F&PD effectively serves chemical engineers and the profession,

and wanted his award to continue helping younger students in striving to achieve their goal of joining the science industry. Thank-you Shariq for your thoughtful donation, and congratulations!



HIGH SCHOOL OUTREACH PROGRAM At the 2013 AIChE Spring Meeting

by Saadet Ulas Acikgoz, Rick Isherwood, and Bill Rooney

The Fuels & Petrochemical Division & the AIChE Education Committee hosted a High School OutReach Program for local high schools in the San Antonio area at the AIChE Spring Meeting on April 30th. The intent of the program is to expose students to the profession of chemical engineering and engineering in general, and to give students the opportunity to interact with professional engineers. The OutReach program in San Antonio was made possible by a generous grant from the Tesoro Oil Company. Approximately 70 high school students from 7 local high schools attended the event.

The student spent the morning learning about chemical engineering and about how engineering affects all aspects of our lives. The keynote feature was delivered by ex-NASA astronaut and Dean of the Edward E. Whitacre Jr. College of Engineering at Texas Tech University in Lubbock, Dr. Al Sacco, who took the kids around the world in sixty minutes with his "out of this world experiences" in the Space Shuttle Columbia. The students also played an interactive game where they had to guess the



occupations of types of engineers. Prizes were awarded to all the contestants. The program concluded with a panel discussion where the students had the opportunity to ask questions of a panel of 4 professional engineers. After the panel discussion the students were treated to a pizza lunch along with the event

This outreach program was organized by Rick Isherwood – UOP LLC, and Dr. Frank Petrocelli – Air Products and Chemicals. Event-day contributors included Meagan Lewis, Saadett Acikgoz, and Bill Rooney from UOP LLC. The panel members consisted of Al Sacco, Rick Isherwood, Lori McDowell – Matheson, and Dr. Katherine Ziemer from Northeastern University.

Calendar of Events

[5th Latin American Conference on Process Safety](#)

Hilton * Cartagena de Indias, Colombia * Aug 12-14, 2013

[5th AIChE Southwest Process Technology Conference](#)

Moody Gardens Hotel and Convention Center * Galveston, TX * October 3-4, 2013

[2013 AIChE Annual Meeting](#)

Hilton San Francisco Union Square * November 3-8, 2013

[2014 AIChE Spring Meeting and 10th Global Conference on Process Safety](#)



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