

OPERATIONS & PROCESS TECHNOLOGY SUMMIT

ATLANTA, GEORGIA
ATLANTA MARRIOTT MARQUIS

OCTOBER 1-3, 2018

AFPM.ORG/CONFERENCES

#AFPMSUMMIT



LEAD FOCUS SUCCEED

WELCOME!

Plan now to attend the one-stop industry shop for professional, technical, and network development. This year's Summit will highlight the need for our industry professionals to lead with safety in operations, focus on reliability of equipment and people, and succeed in operations. Climb to The Summit with us!

KEYNOTE SPEAKERS



General Session
Monday 8:00 am

Dawn Wurst
VP- Process & Asset Safety
Georgia-Pacific Chemicals LLC



Cybersecurity Session
Monday 9:00 am

Dale Peterson
Founder
S4 Events
*It's Not About ICS Security –
It's About Business Risk
and Safety*

SPONSORS

Thank you to our sponsors!

Silver
TechnipFMC Process Technology

Conference Support Sponsorships
Haldor Topsoe, Inc.
Audio Visual - Hydroprocessing Session

DuPont Clean Technologies
Pre-conference Seminar

Merrick & Company
Screening Meeting

Sunday, September 30, 2018

3:00 pm - 6:30 pm Registration - Badge Pick-up
4:30 pm - 5:30 pm Emerging Leaders Meet-up
5:30 pm - 6:30 pm The Summit Kickoff

Monday, October 1, 2018

7:00 am - 6:30 pm Registration
7:00 am - 8:00 am New Manager Morning Mixer
8:00 am - 8:55 am **General Session**
9:00 am - 10:00 am **Concurrent Sessions:**
 • Cybersecurity
 • Operational Planning Control & Automation Technologies
 • Principles & Practices
 • Q&A and Discussion Session
10:00 am - 10:15 am Coffee Break
10:15 am - 12:00 pm **Concurrent Sessions - continued**
12:00 pm - 2:00 pm Lunch in Exhibit Hall
2:00 pm - 3:30 pm **Concurrent Sessions:**
 • Cybersecurity
 • Operational Planning Control & Automation Technologies
 • Principles & Practices
 • Q&A and Discussion Session
3:30 pm - 3:45 pm Refreshment Break
3:45 pm - 5:15 pm **Concurrent Sessions - continued**
5:15 pm - 6:30 pm Reception in Exhibit Hall

Tuesday, October 2, 2018

7:00 am - 5:00 pm Registration
8:00 am - 10:00 am **Concurrent Sessions:**
 • Cybersecurity
 • Operational Planning Control & Automation Technologies
 • Principles & Practices
 • Q&A and Discussion Session
10:00 am - 10:15 am Coffee Break

continued on next page

Tuesday, October 2, 2018 (continued)

- 10:15 am - 12:00 pm **Concurrent Sessions - continued**
- 12:00 pm - 2:00 pm Lunch in Exhibit Hall
- 2:00 pm - 3:30 pm **Concurrent Sessions:**
- Cybersecurity
 - Operational Planning Control & Automation Technologies
 - Principles & Practices
 - Q&A and Discussion Session
- 3:30 pm - 3:45 pm Refreshment Break
- 3:45 pm - 5:15 pm **Concurrent Sessions - continued**
- 05:30 pm - 06:30 pm Women in Industry Reception
Reception open to registered women only.

Wednesday, October 3, 2018

- 7:30 am - 10:00 am Registration
- 8:00 am - 9:30 am **Concurrent Sessions:**
- Cybersecurity
 - Principles & Practices
- 9:30 am - 9:45 am Coffee Break
- 9:45 am - 11:00 am **Concurrent Sessions - continued**

CYBERSECURITY SESSIONS

Presentations and exercises will focus on contemporary cybersecurity topics, including industrial control systems, ransomware, risk management, the industrial internet of things, and supply chain security.

- IT and OT Working Together: Lessons Learned from Building an Integrated IT/OT Program, AE Solutions
- Bypassing Enterprise Defense – Attack ICS Networks the Easy Way, Concurrent Technologies Corporation
- Modeling Adversary Behavior Against ICS, The MITRE Corporation
- Blockchain-Empowered Cyber Supply-Chain Provenance, Old Dominion University
- Vulnerability Assessments: Choose Your Own Adventure, FireEye
- Cyber Resiliency of Mission Critical Automation Systems – In Depth, FoxGuard Solutions, Inc.
- First, Break All the Rules, RKNeal
- IT Malware Threat to OT Networks - A Cryptomining Casestudy, Radiflow
- The Internet of Vulnerable Things: How to Secure ICS Environments Given New Threats, Indegy

Wednesday, Oct. 3

“CyberStrike” - A Hands-on Cybersecurity Exercise presented by the U.S. Department of Energy

The U.S. Department of Energy’s Infrastructure Security and Energy Restoration Division, in collaboration with the Electricity Information Sharing and Analysis Center and Idaho National Lab, has developed the CyberStrike Workshop to enhance the ability of energy sector owners and operators in the U.S to prepare for a cyber incident impacting industrial control systems. The training offers attendees a hands-on, simulated demonstration of a cyberattack, drawing from elements of the 2015 and 2016 cyber incidents in Ukraine. The instruction platform challenges course participants to defend against a cyberattack on the equipment they routinely encounter within their industrial control systems.

This free workshop will be tailored to the refining industry and will be open to all Summit attendees.

OPERATIONAL PLANNING, CONTROL & AUTOMATION TECHNOLOGIES (OPCAT) SESSIONS

Technical sessions will cover topics in the categories of automation & controls, operations planning & scheduling, and reliability & safety.

- Closed-Loop Real-Time Coordinating of a Refinery Mid-Distillates System, Chevron U.S.A. Inc.
- Sustaining Your Asset Model, A Practical Approach, Sinclair Oil Corporation
- Closing the “LP Gap”: Integration of Production Planning and Supervisory Control, Andeavor

- Process Control Support with Data Analytics During Abnormal Events, ExxonMobil Research and Engineering
- Model Predictive Control on a Vacuum Column, Emerson Automation Solutions
- Optimize Your Automation Systems and Staffing, Solomon Associates LLC

CONCURRENT SESSIONS



THEORETICAL, PRACTICAL, AND HANDS-ON APPROACHES TO CYBERSECURITY

Learn from industry leaders and top university experts about the latest in technology and industry standards to minimize risk and guard against targeted attacks!



OPERATIONAL PLANNING, CONTROL & AUTOMATION TECHNOLOGIES (OPCAT) SESSIONS

Attend the OPCAT sessions and get the information and tools you need to optimize your plant operations.

PRINCIPLES & PRACTICES SESSIONS

These discussion-oriented sessions are primarily designed for the engineer whose overall operating experience is 3-15 years. Four of the P&P sessions complement the information exchange that occurs in the Q&A sessions; the other two P&P sessions address current industry issues. Each of the sessions addresses the fundamentals of good operation and the foundational principles for the technologies that are commonly employed. These sessions have short presentations followed by a time where attendees can ask further questions or present their own particular problems and benefit from the collective experience of the other attendees.

Emerging Leaders Town Hall

Join us for a lively, interactive discussion with other emerging leaders in the industry. We will kick things off with an ice breaker and then delve into topics that will help you build a successful career.

Gasoline Processes

This session will address a variety of topics surrounding innovations in and the challenges plaguing gasoline production or addressing byproducts of the various operations. Possible topics include gasoline reforming, isomerization, Tier III, alkylation, chloride removal, green oil prevention, and contaminant mitigation.

Hydroprocessing

Crude/Vacuum Distillation and Coking

This session will cover: 1. operations, electric, and mechanical considerations of desalting; 2. operating parameters and design criteria of vacuum tower wash beds; 3. crude and desalting impacts on wastewater operation; and 4. flare minimization and unit decontamination in turnarounds.

Fostering Profitability

Don't miss this information-packed session covering everything from a refining market overview focusing on what key issues and economics will impact the refining industry in the future to risk assessments of process improvement opportunities around safety, reliability and profitability. In between, we'll hear from fuels quality experts who will discuss how changing fuels quality standards such as IMO 2020, Tier 3, 95 RON octane and biofuels are changing our industry as well as other industry experts who will talk about options, technologies, and drivers that refiners should consider as part of their diversification from road fuels to chemicals.

FCC

Our ever-popular FCC session will direct attention specifically to reformulating catalyst to meet operating objectives; and industrial hygiene hazards, controls, and monitoring for confined space welding and refractory work in the FCC. There will also be a discussion around FCC incidents reported in the AFPM Safety Portal.



CONCURRENT SESSIONS



PRINCIPLES & PRACTICES SESSIONS

Enhance your young engineers' education. Gain practical knowledge from recognized industry authorities on the Q&A session topics as well as Fostering Profitability.



Q&A AND DISCUSSION SESSIONS

Have questions about FCC, Hydroprocessing, Crude/Vacuum Distillation and Coking, or Gasoline Processes?

Discover answers and share your experiences and solutions in the townhall discussion following the formal Q&A.

Q&A AND DISCUSSION SESSIONS

Panels of featured industry experts from refining companies and technology providers respond to questions and engage attendees in a discussion of today's tough issues.

Crude/Vacuum Distillation & Coking Panel

- *Robert Boettger*, Technical Services Engineer, HollyFrontier Corporation
- *Bill Cates*, Staff Process Engineer, Hunt Refining Company
- *Michael Kimbrell*, Heavy Oil Process SME, Becht Engineering Co., Inc.
- *Brandon Payne*, SUEZ Water Technologies & Solutions

FCC Panel

- *Saeed AlAlloush*, Sr. Process Engineer, Saudi Aramco
- *Tiffany Clark*, Account Manager - Refining FCC, BASF Corporation
- *Alec Klinghoffer*, FCC/Alky Operations Superintendent, Wynnewood Refining Company LLC
- *Casey Lang*, Sr. Process Engineer, MERRICK & Company
- *Minaz Makhania*, Sr. Process Specialist-Technology Services Specialist-FCC, UOP India Pvt Limited
- *Dewey Stuart*, Process Engineer Specialist, Motiva Enterprises LLC

Gasoline Processes Panel

- *Christian Arnoux*, Senior Refinery Models Engineer, Valero Energy Corporation
- *Gayl Mercado*, Senior Technologist, Axens North America
- *Tim Sheppard*, VP Technical Services, HF Alkylation Consultants, LLC
- *Lance Tallman*, CITGO Petroleum Corporation

Hydroprocessing Panel

- *Travis Beltz*, Technical Services Manager, Marathon Petroleum Corporation
- *Jeff Caton*, Regional Sales Manager, Axens North America
- *Jeff Crouch*, Global Market Segment Leader, IsoTherming® Technology, DuPont CleanTechnologies
- *Neil Howard*, Staff Process Engineer, Chevron Lummus Global
- *Robert Steinberg*, Hydroprocessing SME, Motiva Enterprises LLC
- *Wendy Wildenberg*, Senior Technical Lead, Flint Hills Resources, LP

Visit www.afpm.org and click on The Summit to view the questions and discussion topics.



CONCURRENT SESSIONS



PRINCIPLES & PRACTICES SESSIONS

Enhance your young engineers' education. Gain practical knowledge from recognized industry authorities on the Q&A session topics as well as Fostering Profitability.



Q&A AND DISCUSSION SESSIONS

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Discover answers and share your experiences and solutions in the townhall discussion following the formal Q&A.

TABLETOP EXHIBITION

Two lunches and a reception will take place in the exhibit hall which showcases catalyst, chemical, and technology providers, engineering companies, licensors and other industry suppliers in one convenient location.

Exhibitors to date include:

Air Products and Chemicals, Inc., AIS Software, Albemarle Corporation, Arkema Inc., Catalyst & Chemical Containers, ChemTreat, Inc., Chevron Phillips Chemical Company LP, Clariant Corporation, Criterion Catalysts & Technologies, Crystaphase, Dow Chemical, Emerson Automation Solutions, Forum Energy Technologies, Haldor Topsoe, Inc., Johnson Matthey, Merichem Company, NALCO Champion, Petroval S.A., Porocel International, LLC, Quantum Technical Services, S8 Engineering Inc, SUEZ Water Technologies & Solutions, TechnipFMC, WIKA Instrument, LP, Woven Metal Products

Visit www.afpm.org and click on The Summit to apply to exhibit.



NETWORKING OPPORTUNITIES

- **Emerging Leaders Meet-up** - For the young professionals in the crowd, join this pre-kickoff event to meet your peers and mentors.
- **The Summit Kickoff** – Don't miss our annual reunion! Get reacquainted with old friends and then make some new ones during this hour long networking opportunity, open to all registrants.
- **New Manager Morning Mixer** – Breakfast open to those who have been managers/supervisors for 5 or less years or will become managers/supervisors in the next year.
- **Exhibit Hall Sessions** – Explore the exhibit hall to learn about the latest products and services while making new contacts and re-connecting with peers in the industry. Lunches are served on Monday and Tuesday in addition to a happy hour reception offered on Monday.
- **Women in Industry Reception** – Come share your experiences and make new contacts as we share challenges and solutions unique to women in the hydrocarbon processing industries.
- **Morning Coffee and Afternoon Refreshment Breaks** – Continue the discussion as you grab a drink or snack mid-way through each session.
- **Affiliate Hospitality Functions** – After the AFPM sessions end, visit industry suppliers as they host functions in meeting rooms and suites throughout the hotel. Stop in for a drink, a bite to eat, and entertainment as you learn about solutions and services provided by the host company.

THE ANSWER BOOK

NEW THIS YEAR: The Answer Book will be the only record of the Q&A and Discussion Sessions. AFPM will not be recording any of the session. Attendees are encouraged to respond to the selected questions from the Q&A and Discussion Sessions. The Answer Book allows you to incorporate visual aids and lengthy or highly technical comments into a response. The Answer Book will complement the session discussion and provide more depth on certain topics. Prior to the conference, a digital version of the Answer Book will be available to conference attendees on the My Meetings link of the AFPM website.

To have your answers included, submit them no later than **August 28, 2018**. This will allow time for AFPM to prepare the answers for distribution.

Please use the following format:

- Identify yourself, your company, and the session and question number to which you are responding
- Provide your answer, and include any supporting visual aids
- Provide a contact name, phone number and/or email address in case there are questions about your response.

Submit your responses via email to Answerbook@AFPM.org.

Visit www.afpm.org and click on The Summit to view the questions and discussion topics.

Ethical Responsibility and Professional and Personal Conduct Code

The American Fuel & Petrochemical Manufacturers (“AFPM”) has adopted the following “Ethical Responsibility and Professional and Personal Conduct Code” (hereinafter, “the Code”). Every member of AFPM, their designated representatives, and non-member attendees at all AFPM meetings and forums agree to abide by the Code as a condition of membership in AFPM and attendance and participation at AFPM meetings and forums.

The Code requires the following of all individuals attending AFPM meetings and forums:

- Adherence to the AFPM bylaws and the AFPM policies and procedures, as adopted by AFPM’s Board of Directors.
- Strict compliance with federal antitrust laws.
- Adherence to all applicable federal and state laws.
- Maintenance of the highest level of professional and personal ethical behavior while attending AFPM meetings and forums.
- Prevention of certain behaviors, including harassment, violence, intimidation and discrimination of any kind involving race, color, religion, national origin, gender, sexual orientation, age, disability or, where applicable, veteran or marital status.
- Assurance that conduct at all times and in all professional and personal dealings with each other and other attendees is with the highest level of integrity and courtesy.

- Sharing of knowledge and expertise as speakers at AFPM educational events and sessions whenever practicable, without soliciting or explicitly promoting their own organization’s products or services.
- Working to instill public and consumer confidence in the petrochemical and refining industries, its member companies, and its professionals, avoiding any action conducive to discrediting members of AFPM.
- Refraining from scheduling general attendance meetings, receptions or other events at times that conflict with substantive programming or social events at AFPM meetings without express written permission of AFPM.

Failure to abide by the Code may result, for the first offense, in informal censure of a company or individual by the AFPM Executive Committee. If violations of the Code continue after such an informal censure, a company may be subject to expulsion from AFPM, or an individual to exclusion from participation in AFPM activities, by the Board of Directors.

Entertainment Policy

We ask your cooperation in observing Association policy on activities held in conjunction with any AFPM meeting:

- Meetings or social activities should not be scheduled that take registrants away from AFPM programs and AFPM-sponsored activities;
- Any company sponsoring a function to which 25 or more people are invited should outline its plans for advance approval by AFPM. In general, such functions will be approved if they do not unduly take registrants away from AFPM-sponsored activities;
- All representatives of companies sponsoring hospitality activities are expected to register for the meeting;
- Hospitality suites are expected to close by 12:00 a.m.;
- Food, beverage and service personnel (bartenders, hostesses, etc.) must be obtained through the hotel catering department;
- Suite promotional activities are to avoid the use of elaborate entertainment, expensive door prizes, suite attendance solicitation by individuals who are not full-time employees of the sponsoring company, or other similar activities.

1. Conference Registration

Log on to www.afpm.org and click "Register Now" or complete the enclosed registration form. Full registration includes admission to the general and breakout sessions, the luncheons on Monday and Tuesday in the exhibit hall and the Monday evening reception in the exhibit hall. You'll save \$100 off full conference registration if you register by August 31st!

2. Hotel Reservations

Reserve your hotel online after you register at www.afpm.org. You will receive a link to make your hotel reservation once your registration is complete. You will receive a confirmation of your reservation once completed. Or, fill in the appropriate space on the enclosed registration form. Hotel reservation requests will be processed in the order received by AFPM. Get immediate confirmation online but allow 1 week if submitted to AFPM.

Hotel Cancellation Policy – Please make all cancellations at least 72 hours prior to arrival to avoid a cancellation fee of one-night's room and tax.

3. Spouse Registration

For just \$100.00, your spouse may join you at the Monday evening reception as well as the included sessions.

4. Payment

Pay by credit card. AFPM accepts American Express, MasterCard and Visa.

5. Tabletops or meeting space

Contact Kira Short at 202.457.0480 or email at summitexhibits@afpm.org.

6. Confirmation

Your registration will be confirmed via email if you provided us your email address.

8. Sponsorship Opportunities

Show your support for the industry. Contact Colleen Lewallen for sponsorship opportunities at 202.457.0480 or sponsorships@afpm.org.

9. Attire

Business Casual (No tie; jacket optional)

Cancellation Policy:

Registration cancellations must be submitted in writing and faxed to 202.835.0467 or emailed to OPT@afpm.org. Substitute conference registrations may be made in advance or on arrival with no penalty and may be submitted in writing to OPT@afpm.org or processed online by the individual who input the original registration.

Cancellations may be made by August 31, 2018 with no penalty. Written cancellations postmarked, faxed, or emailed between September 1 and September 14, 2018 will receive a refund of fees, less a \$50 processing fee. No refunds after September 14, 2018. No telephone cancellations.

Fee Policy:

Member Fee Eligibility – The member rates are based on membership information currently on file with AFPM. If your company is not currently a member, the non-member fees will be charged to your credit card.

Registration Policy

Those who are present at the site of an AFPM meeting and/or occupy a hotel room in the AFPM room block to conduct business with industry personnel gathered for that meeting are expected to register for that meeting and pay the registration fee, whether or not they attend a specific function.

Spouse/Guest Policy

A guest is a spouse/significant other, friend or an adult child (18 years old or older) who is not in an industry-related occupation. A co-worker, an associate or spouse who works within the industry may not use the Spouse/Guest Registration category. Guests are not permitted to work the tabletop exhibit. Children under 18 are not permitted in the exhibit hall.

No Suit-casing Please

Please note that while all meeting registrants are invited to the exhibition, any non-exhibitor registrant who is observed to be soliciting business in the aisles or other public spaces, in another company's booth, or in violation of any portion of the AFPM Exhibition Policy will be asked to leave the show floor. Please report any violations you may observe to show management.

Photo Release

By registering for this conference, I hereby grant AFPM, its licensees and assigns, the right to use my name, biographic material, as well as, photos, or videos taken of me during the conference in news media, websites, publications, programs, articles, and/or marketing materials.

Step 1: Attendee Profile

Please fill out completely. Badges will be printed from this information.

Name _____

Title _____

Company _____

Address _____

City _____ State _____ Zip _____ Country _____

Phone (Area/Country/City Code) _____ Fax (Area/Country/City Code) _____

E-mail _____

This is not a permanent address change.

Spouse/Guest Name (if attending) _____

Check here if you require any special services.
Please attach a description of your needs.

SAVE \$100 ON CONFERENCE REGISTRATION FEES BY REGISTERING BY AUGUST 31ST

Step 2: Meeting Registration

Full Registration	By Aug 31	After Aug 31
<input type="checkbox"/> Member	\$ 725 _____	\$ 825 _____
<input type="checkbox"/> Non-Member	\$ 1350 _____	\$ 1450 _____
<input type="checkbox"/> Spouse/Guest	\$ 100 _____	\$ 100 _____

Total Amount Due _____

Name of Member Company _____

Not sure if your company is a member? Go to www.afpm.org

Step 3: Payment Information

Payments to AFPM are not deductible as charitable contributions for federal income tax purposes. However, they may be deductible under other provisions of the Internal Revenue Code.

VISA MasterCard American Express

Credit Card Number _____ Exp. Date _____

Name on card (please print) _____

Billing Address _____

City _____ State _____ Zip _____ Country _____

Signature (Required, authorizing charge & acknowledging cancellation/refund, fee, registration, spouse, & other policies.) Click [here](#) to review AFPM policies.

Step 4: Hotel Reservation

Requests must be accompanied by paid conference registration to be processed. Room rate is \$194 Single/Double occupancy at the Atlanta Marriott Marquis, 265 Peachtree Center Avenue, Atlanta, GA 30303.

Arrival Date _____ Departure Date _____

If no dates are indicated, we will assign arrival Sunday, September 30th and departure Wednesday, October 3rd.

Room Type: One Bed Two Beds

Number of People in Room: _____

Special Requests: Disability Other

Room Guarantee: AMEX VISA

MasterCard Discover Diners

Credit Card Number _____ Exp. Date _____

Signature _____

Name on Card _____

Frequent Guest Number _____

Register online to receive immediate confirmation of hotel reservation. August 31st is the final cut-off date to reserve a room at the AFPM block rate.

Register by Fax:

Register by fax with credit card information to 202.835.0467.

Register by Mail:

AFPM
1800 M Street, NW
Suite 900 North
Washington, DC 20036