

CAT CRACKER SEMINAR

ROYAL SONESTA HOTEL
HOUSTON, TEXAS
AUGUST 21 – 22, 2018

AFPM.ORG/CONFERENCES
#AFPMCAT



ENHANCE FCCU PERFORMANCE

The biennial AFPM Cat Cracker Seminar and Exhibition will be held August 21-22, 2018 at the Royal Sonesta Hotel in Houston, TX. This Seminar attracts experts throughout the industry and provides an ideal networking opportunity for anyone whose responsibilities include FCC operations.

We will begin the general session at 9:00 am on Tuesday, August 21 with keynote presentations by industry professional Phil Niccum, KP Engineering, discussing the history and evolutionary path to the modern FCCU followed by a presentation by Steve Gim of BASF Corporation who will examine the impact of changes in FCC feeds resulting from the latest resurgence of tight-oils.

Following the general session, join your fellow attendees in the exhibit hall for lunch where the exhibition will showcase the latest technological advances in FCC equipment, catalysts, refractory, diagnostics, and reliability services from companies that specialize in FCC equipment and technology.

Round out the afternoon by hearing from panels of industry experts answering questions on both FCC process and mechanical issues. Be part of the conversation, come prepared with your own questions, and experiences with and solutions to the list of questions on p. 3 and 4.

Wednesday, August 22 will be packed with presentations sure to increase your operational development, open discussions with your peers and create opportunities for knowledge sharing. These 24 presentations are broken down into four topic tracks: Trends and Innovation; Process and Operations; Maintenance and Reliability; and Cat Cracking Essentials. This program gives you the option to focus on a particular aspect of FCC operation or to tailor your own program to cover a broader range of interests. Whether you are in operations, technical service, maintenance, reliability, or process engineering you will find a comprehensive program that meets your needs for improving your FCC's operation and reliability.

SPONSOR

Thank you to the following sponsors:
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Final Conference Program – **BASF**

If your company is interested in sponsoring the Cat Cracker Seminar, check out available [sponsorship opportunities](#) or send an email to sponsorships@afpm.org.

EXHIBIT

Have something new to share? Want a chance to meet around 200 industry professionals who specialize in FCCU operations and maintenance? [Exhibit](#) at the 2018 Cat Cracker Seminar!

GENERAL SESSION

9:00 am – 11:00 am

FCC: Driven by Competition, Fueled by Trial

Phillip Niccum, Senior Vice President
Process Engineering,
KP Engineering, LP

The oil industry has seen three major events in the last three years. The unlocking of unconventional oils to refining through fracking, unrestricted oil production lowering the price of crude by 50%, and the crude export ban lifting from the U.S. The net impact has been a re-emergence of gasoline as the premier fuel in the U.S. and other markets. This presentation will look at global market shifts, implication for each PADD in the U.S., and maintenance activities that continue to maximize the value of the FCC operations.

Translating Crude Mix, Macroeconomics, and Regulatory Issues to the Future Demands of FCC

Steve Gim, Regional Tech Services
Manager - Americas,
BASF Corporation

FCC, the classic gasoline machine in North American refineries, has been making a comeback lately, after years of declining capacities. It followed the latest upswing in domestic gasoline consumption and opportunistic exports of gasolines at a historical level. This presentation will examine the impact of changes in FCC feeds resulting from the latest resurgence of tight-oils in the \$60 plus crude oil world. The impact of regulatory factors, including IMO regulations, Tier III standard, and renewables, on the FCC product mix and their potential solutions will also be discussed.

Q&A SESSION

A panel of industry experts from AFPM member companies will respond to questions that were received in response to an industry-wide call for questions. One or more of the panel members will respond to each question and then time will be allowed for follow-up questions from the attendees who may also offer their comments and advice after the panel has responded. A transcript of the session will be distributed to all meeting attendees at a later date.

The questions are divided into the following categories:

1. Process
2. Mechanical

Process Panel

12:30 pm – 2:30 pm

1. What is the philosophy regarding catalyst unloading during non-normal operation, such as after a unit trip or unplanned maintenance period, sometimes called hot standby or safe-park mode? At what point is the catalyst unloaded to prevent wet catalyst? How long should the catalyst stay in the unit, should it be continually circulated, and what are the best practices/safeguards for this type of operation?
2. Aside from testing shown on vendor e-cat reports, what tests of FCC catalyst can be performed to troubleshoot fluidization problems?
3. What experience do you have switching between steam, air or nitrogen to fluidize regenerated catalyst standpipes? What was the temperature and quality of the steam? What was the layout of the fluidization nozzles?
4. To ensure validity of LOPA barriers (SIS SIL) certain SIS valves (e.g., feed bypass valve) need to be tested on a frequency shorter than a turnaround cycle. What are recommended practices for validating correct function of SIS final elements on the run?

5. What are recommended practices for interlocking equipment protective systems (main air blower, electrostatic precipitator, wet gas compressor) with the FCC SIS?
6. How do you manage abnormal situations and changes in combustibles to safely operate ESP? What equipment is utilized to protect the ESP and what reliability issues are associated with that equipment?
7. What are the typical targets and analyses performed on the make-up water and circulating water for flue gas scrubbers, and at what frequency are the analyses performed?
8. Discuss your experience with the continuous monitoring and/or the calculation of ammonia slip to the flue gas stack. What are the strengths and weaknesses of your approach or of your equipment for controlling the amount of slip?
9. What is considered "best practice" on the FCC water wash program (fresh vs. recycle water), starting at the FCC overhead, through to the gas plant? What typical wash water rates or ratios along with injection(s) location are used to manage the concentration of corrosive components such as, H₂S, and/or hydrogen cyanide?
10. How can continuous process modeling, and the Industrial Internet of Things be used to optimize FCC performance in real time? What key metrics should these systems monitor?

see next page for Process Panelists

Process Panelists

Matt Goodwin has been with the Andeavor SME group for FCC and Alkylation for the past 2 years supporting Andeavor's 9 FCC and alky units. Prior to his SME role, Matt supported the Andeavor Martinez, CA FCC unit for 5 years. He has supported several FCC projects and has been involved with unit turnarounds and startups.

Patrick McSorley is a Senior FCC Technology Specialist within the UOP Technology Services Department. His current responsibilities include direct customer support, troubleshooting and knowledge transfer for operating units, revamps and grassroots projects around the world. He has been involved in the refining industry for 8 years and has held various technical roles within the FCC, treating and renewables communities. These roles and responsibilities stretched across the R&D, regional services, field operating services, and technology services departments within UOP. Patrick holds a BSChE from the University of Illinois at Urbana-Champaign.

Shaun Rendall is a Principal Process Engineer with Norton Engineering Consultants with 16 years of experience in the refining and chemical industries. In that time, he has provided daily monitoring, troubleshooting, strategic improvements, and unit optimization in a variety of process technologies as both a unit engineer and lead. Technologies include: fluid catalytic cracking, reforming, chemicals, solvent extraction, polymerization and sulfuric acid alkylation, hydroprocessing/selective hydrogenation, crude, wastewater, boiler feed water, boiler house and cogeneration plants. Beyond the FCC reactor, regenerator and gas plant, Shaun also has significant experience in the design, commissioning and operation of wet gas scrubbers.

Andrew Thomas is a Technical Lead at Phillips 66. Andrew has worked at the Bayway refinery for 9 years. During that time, he has supported the utilities/hydrogen plant, benzene saturation project, ULSD hydrotreaters and currently the FCC block which includes a 100 MBPD FCC unit, hydrotreaters and light ends gas plant. Andrew holds a ChemE degree from Penn State.

Jason VanRoeyen is a Senior Fluidized Catalytic Cracking Technologist for Shell Global Solutions. Jason leads multi-disciplinary teams to deliver FCC design packages for Shell and third-party refiners. In addition, Jason provides long term technical monitoring and support to Shell cat crackers. Prior to his current role, he provided process engineering support to operations at Shell downstream manufacturing locations in Louisiana. These roles focused on improving process safety, margin, and reliability. Jason earned his BSChE from the University of Michigan.

Mechanical Panel

2:45 pm – 4:30 pm

11. When firing of the direct fired air heater is used long term to support the FCCU heat balance, what limits are enforced to prevent damage to the regenerator air grid(s)? What measures or safety systems are utilized to prevent issues with flameout and undetected burning downstream of the heater?
12. Have you experienced warping of air grid arms? If so, what were attributed as the primary causes for the damage?
13. Describe your experience with electrostatic precipitator reliability. What weaknesses or practices contribute to short mean-time-between-failure (MTBF)? What are the opportunities to increase MTBF?
14. What are some recent experiences with structured packing in the main fractionator quench section? Please comment on coking tendency, corrosion resistance, metallurgy, material thickness, inspection, life expectancy, and mechanical strength.
15. What corrosion monitoring program is employed along with sour water sampling systems? How are analytical methods used as feedback in adjusting inhibitor usage and wash water rates or more closely monitoring feed quality?
16. What can be done to prevent and/or mitigate hot spots in the vicinity of purged regenerator standpipe nozzles?
17. With the accelerated corrosion that has been found on standard 304H hex mesh packed with regen refractory, what improvements are being made to improve reliability and life cycle of these linings as it relates to metallurgy, weld consumables, product design or installation methods?
18. When quench water is required to cool the regenerator flue gas before the flue gas expander, what considerations should be taken into account regarding the water injection nozzle location and type to ensure adequate droplet atomization and evaporation?
19. What are the turnaround maintenance and inspection best practices for reactor vapor line valves? For valves with a design steam leakage rate, what steps are required in order for the reactor or main fractionator to be considered man-safe without blind installation?
20. What impact does soot blowing have on the operation and performance of ESP's and flue gas scrubbers on stack emissions? What strategies are recommended for managing emissions?
21. What are the leading causes of tube failures in flue gas boilers or coolers? What monitoring is recommended to maximize the run length and avoid shutdowns due to these failures?

Mechanical Panelists

Steve Davies is a Technical Manager for Emtron LLC.

Matthew Manning is a Mechanical Engineer for TechnipFMC Process Technology managing the FCC mechanical and pressure vessel group. He entered the refining and petrochemical industry 12 years ago as a mechanical engineer with the Shaw Group. His involvement in FCC design, development, fabrication support, equipment installations, and field support has provided a broad experience from equipment design through installation. He holds a BSME from the University of New Hampshire and is a registered Professional Engineer.

Todd Miller is a Process Engineer with HollyFrontier Corporation.

Michael Stine is the FCC Mechanical Technology Specialist at Honeywell-UOP. He is responsible for the mechanical design of FCC process units. Over the past 16 years at UOP, Michael has been involved in many facets of the FCC technology including schedule A design and production, detail design, system flexibility analysis, piping design, FEA analysis, technology development, field support and trouble-shooting, and product development. In his current role, he is responsible for setting the mechanical technology policies and standards and leading the advancement and development of UOP FCC technology worldwide. Michael obtained his BSME from Southern Illinois University.

8:00 am – 8:50 am

Track 1: Trends and Innovation

Coming Challenges for the FCC: Impact of the International Maritime Organization on Refining
KBC Advanced Technologies, Inc.

Track 2: Process and Operations

Increasing Resid Processing with Catalyst Technology at PES Pt. Breeze
Philadelphia Energy Solutions Refining and Marketing, LLC
W. R. Grace & Co.

Refiners are continually challenged to improve profitability through feedstock flexibility, which often means processing heavier feeds with increased resid content. We will describe how the partnership between PES and Grace, as well as the tailored catalyst solution, contributed to the overall improvement in refinery profitability.

Track 3: Maintenance and Reliability

Digital STO: Deliver On-time with Transformative Real-time Management
Mobideo

A discussion of digitalization tools that will transform your ability to manage the unexpected in real-time. With a good plan in place your ability to manage in real-time is the difference between on time and on budget STOs and a “train wreck.” In as little as 6 weeks, you can improve adherence to schedule, manage delays and discoveries, and automate reporting. Learn more in this fast paced session.

Track 4: Cat Cracking Essentials

Troubleshooting Catalyst Losses in the FCC Unit
BASF Corporation

This presentation will explain the fundamental principles of catalyst losses such as fluidization, cyclone system components, catalyst properties, and the difference between attrition and cyclone malfunction. By understanding where and how cyclones can fail, as well as the mechanisms of attrition, refiners can prevent a unit shutdown by troubleshooting the cause of losses early and making the proper operational changes quickly.

9:00 am – 9:50 am

Track 1: Trends and Innovation

Simulation as a Tool for Learning from Historical FCCU Operations

CPFD, LLC

This presentation and discussion is focused on how simulation is used to capture lessons learned from current and historical FCCU operations as a means to accelerate the learning process and rapidly deepen the knowledge base of FCC engineers and technologists. Multiple case studies will be presented from both North American and international refiners, where simulation was used to understand and mitigate issues such as erosion, emissions, afterburn, and catalyst losses.

Track 2: Process and Operations

Minimizing FCC Main Column Bottoms Product

Process Consulting Services, Inc.

The International Maritime Organization has announced a global 0.5 wt% sulfur limit on marine fuels that will go into effect in 2020. Refiners will need to minimize or eliminate components that are currently blended into high sulfur marine fuels. This presentation will discuss minimizing main column bottoms product by maximizing LCO and/or HCO products.

Track 3: Maintenance and Reliability

Streamline Inspection with Advanced Digital Imagery

Quest Integrity USA, LLC

One of the nation's largest mid-west refiners was challenged with having to visually inspect and catalog over 400,000 individual contact points. In an effort to improve safety and reduce cost, Quest Integrity was asked to develop a work process that would minimize elevated work, enhance the level of reporting and implement a system for easily managing large amounts of inspection data. This presentation will discuss the solution they developed using laser imaging, robotic cameras and industrial drones to capture high-resolution imagery suitable for close visual inspection in place of personnel working in confined or elevated spaces.

Track 4: Cat Cracking Essentials

Particle Attrition: Mechanisms and Methods to Determine Attrition Indices

Particulate Solid Research, Inc.

Particle attrition can be a major issue in using catalyst particles in fluidized beds and circulating fluidized beds. Particles tend to break down via two mechanisms – abrasion and fragmentation. Hear how PSRI's attrition jet cup was used to measure the attrition indices of two different catalyst particles separately and those of a known composition of different blends. These results will shed light on what would be the resulting attrition index of a known cocktail of blended catalyst if the attrition indices of the individual components are known.

10:00 am – 10:50 am

Track 1: Trends and Innovation

**Gathering Tacit Knowledge from Your Best Operators |
Standard Work During the Great Shift Change**

Innovatia

This presentation will focus on methods for capturing tacit information from the front line during day-to-day operations by utilizing mobile devices tied to standard operating procedures.

Track 2: Process and Operations

FCC Regenerator Catalyst Loss Case Study

Tracerco

Marathon Petroleum Corporation

This presentation will summarize the investigation of erratic catalyst loss problems for a Marathon FCC unit, including Tracerco diagnostics and inspection findings.

Track 3: Maintenance and Reliability

Vibration Assessment of FCCU Piping

Stress Engineering Services, Inc.

Due to very high process temperature, piping in FCCUs is lined with refractory material. Piping is necessarily designed to be flexible to limit stresses induced by thermal cycling. A combination of piping flexibility, high process flow rates and flow obstructions can lead to cracks in welds and refractory material due to excessive vibrations. Case studies in FCCU vibration will be presented.

Track 4: Cat Cracking Essentials

The Impact of Feedstock on FCC Yields and Performance

W. R. Grace & Co.

The FCCU is commonly referred to as the trashcan of the refinery since most undesirable and opportunity feedstocks are normally sent there to be processed. While FCC engineers may not be able to choose their feed, a greater understanding of feed properties and their effect on yields and performance aids in troubleshooting unit shifts and optimizing unit operation. This presentation will examine FCC feedstock sources, feedstock characterization, the effects of boiling point and hydrocarbon type on yields, and the impact of feed impurities. The application of tools to predict the impact of feeds on the unit will also be covered.

11:00 am – 11:50 am

Track 1: Trends and Innovation

Reactor Vapor Line Isolation Valves

Chevron
TapcoEnpro, LLC

Many owners struggle to quantify procurement of equipment that provides efficiencies in operation and maintenance environments. This presentation will describe situational events that lead owners to procure equipment for isolation and control of normal and non-normal operations that improve “on stream” availability while providing additional safety related hardware that limits personnel exposure during extremely difficult isolation of FCC units. A specific case of application and installation by Chevron will be discussed.

Track 2: Process and Operations

STORM Clears the Way for Improved FCCU Process Safety

Shell Global Solutions U.S.

Situational Training for Operator Response to Mitigate (STORM) was launched approximately eight years ago as part of a multifaceted plan to improve Shell's process unit safety. It includes a review of threat identification and mitigation strategies with our Unit Operators and Production Support staff around known hazards and abnormal situations to improve competencies.

This presentation will be a demonstration of an actual FCCU STORM session, engaging the audience in lively discussion as well as sharing program details.

Track 3: Maintenance and Reliability

FCC Reactor Stripper Troubleshooting

Monroe Energy, LLC

In FCCU's, reactor strippers perform the important function of removing any residual hydrocarbon from the catalyst prior to the regeneration phase. This is important because excess hydrocarbons in the regenerator take up air capacity and increase the temperature of the regenerator, which will lead to a lower cat-to-oil ratio and decreased unit performance. This presentation will discuss Monroe Energy's Trainer refinery's multiple problems with the reactor stripper extensive troubleshooting.

Track 4: Cat Cracking Essentials

Utilizing Your FCC Additives Toolkit in Unexpected Ways

Johnson Matthey
Marathon Petroleum Corporation
Parkland Refining

Most FCC engineers and operators know how to use FCC additives to improve their operation. The use of ZSM-5, SOx reduction additives, and CO promoter is well established in most refineries today. The purpose of this session is to bring attention to non-obvious ways of taking advantage of additive technologies. This session will be divided into two parts. In each part, a refiner will share how they took advantage of different FCC additives to improve their profitability and flexibility in innovative ways.

1:30 pm – 2:20 pm

Track 1: Trends and Innovation

Monitoring the FCCU with Simulation Modeling

Albemarle Corporation

Kinetic simulation models are powerful tools to aid the decision making process. Modeling increases the user's understanding of their unit, reducing risks when making process changes. This is one of the main reasons the use of simulation models is growing. During this presentation, we will share practices, hints, techniques and tips using real refinery data sets and hope after learning these tips, refiners will be better able to leverage simulation models as decision making tools that can minimize the risk when making changes on the FCCU.

Track 2: Process and Operations

Increasing FCC Olefin Production - Major Equipment Systems

Process Consulting Services Inc.

This presentation will highlight major effects of C3/C4 olefin driven reactor effluent changes and review strategies for circumventing potential unit limits downstream of the reactor. The focus will be avoiding brute force solutions such as adding a new parallel wet gas compressor to deal with increased compressor loadings. All the examples presented have been implemented over the last 25 years.

Track 3: Maintenance and Reliability

Improving the Reliability of an FCC Hot Gas Expander

Elliott Group

This case study examines the rerate of a poorly performing non-Elliott hot gas expander operated by a U.S. refiner. Due to excessive blade erosion, along with severe steam cutting of the airfoils and disc, the machine required extensive maintenance every two to two-and-a-half years, well below the five- year maintenance run the user required. Elliott Group was contracted to retrofit a flowpath that would resolve the reliability issues and allow the expander to operate for the desired five-year operating campaign.

Track 4: Cat Cracking Essentials

Safety Forum

2:30 pm – 3:20 pm

Track 1: Trends and Innovation

Improving Worker Safety Through Mobile Devices

Total Safety U.S., Inc.

Advances in mobile technology provide an avenue for stronger protections for workers in permit-required confined spaces, as well as lone workers who operate in hazardous environments.

For employees in confined spaces, established improvements like Centralized Confined Space Monitoring (CCSM) are clearly more effective than the traditional hole-watch process. A more recent technology - lone-worker or man down - draws on the power of mobile devices to keep workers safe, no matter where they operate. Hear how bringing CCSM and lone-worker technology together can mean even better safety and regulatory outcomes.

Track 2: Process and Operations

Expediting Catalyst Removal and Unit Chemical Clearing

USA DeBusk LLC

Discussion on removing catalyst from the FCC unit while it is at an elevated temperature (1250°F) during the LOTO and blinding phase of unit turnover to maintenance as well as increasing operation yield speed on unit de-inventory. Additionally, utilizing technology to clean the unit of hydrocarbons during the same phase to expedite the turnover of both the catalyst side and oil side of the unit to maintenance shifts ahead of current procedures will be discussed.

Track 3: Maintenance and Reliability

Electrostatic Precipitator Power Supply Upgrade on a FCC

Babcock & Wilcox

Changes have occurred in the types of power supplies used today on electrostatic precipitators (ESP). This presentation discusses the three types of high voltage power supplies available for powering an ESP and the advantages and disadvantages of each.

Track 4: Cat Cracking Essentials

FCC Yield and Energy Optimization

UOP – a Honeywell Company

Regardless of the technology or process, all refiners strive to maximize yields and optimize utilities and energy usage. In the short term, existing assets must be utilized to achieve these goals via operational changes. In the long term, installation of state-of-the-art internals and equipment (revamped or new) along with new operating conditions can unlock additional potential. This presentation will touch on various methods of short-term optimization with a deeper look at steam usage. It will also cover various long-term solutions including a few case studies.

LIST OF EXHIBITORS*As of June 20, 2018*

AFPM Safety Department
 Albemarle Corporation
 AltairStrickland, Inc.
 BASF Corporation
 BLAC INC
 BrandSafway
 Century Elevators
 Clean Air Engineering
 Construction & Turnaround Services
 Consulting and Field Services
 Continental Fabricators, Inc.
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Alexis Shackelford
 Technology Specialist
 BASF Corporation

1. Conference Registration

Click [here](#) then "Register Now" or complete the enclosed registration form. Registration includes admission to the general session, Q&A sessions, table-top exhibits and workshop sessions. Online registration closes August 10.

Fee Structure:

In order to encourage AFPM attendees to use the contracted hotel block at the Royal Sonesta Houston, a tiered registration fee structure will be in effect. Registrants occupying a hotel room in the AFPM block at the Royal Sonesta will pay a discounted registration fee \$200 less than those registrants who choose to stay outside the block or at an alternate hotel. Local commuter registrants, of course, will receive the discounted registration fee.

You'll save \$100 if you register by July 20!

2. Hotel Reservations

Reserve your hotel online when you register at AFPM.org and receive an immediate acknowledgement of your reservation. Or, fill in the appropriate space on the enclosed registration form. Hotel reservation requests will be processed in the order received by the AFPM. Get immediate acknowledgement online but allow 1 week if submitted to AFPM.

A major credit card is required to guarantee your reservation. Cancellation must be received by hotel at least 24 hours prior to arrival to avoid being charged for the first night's room and tax. July 20, 2018, is the cut-off date for making hotel reservations, cancellations or substitutions through AFPM or online. Beginning August 27th, reservations, substitutions, or cancellations must be made through the hotel directly.

3. Spouse Registration

For just \$100, your spouse can join you at the table-top exhibits as well as the included business sessions.

4. Payment

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

5. Confirmation

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

6. Sponsorship Opportunities Available

Contact Colleen Van Gieson at 202.457.0480 or email at Sponsorships@AFPM.org.

7. Attire

Business casual - shirts with collars; No ties, no sneakers and no shorts.

Cancellation Policy:

Registration cancellations must be submitted in writing and faxed to 202.457.0486 or emailed to CAT@afpm.org. Substitute conference registrations may be made in advance or on arrival with no penalty. Substitutions can be made online by the individual who entered the registration or can be submitted in writing to CAT@afpm.org.

Cancellations may be made by July 20, 2018 with no penalty. Cancellations made online or written cancellations postmarked, faxed, or emailed between July 21 and August 3, 2018 will receive a refund of fees, less a \$50 processing fee. No refunds after August 3, 2018. No telephone cancellations.

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 table-top exhibit. Children under 18 are not permitted in the exhibit hall.

Fee Policy:

Eligibility for rates:

Member Fee: The member rate is 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.

Local Fee: Eligibility for the local fee is limited to those who will be commuting from home to the conference each day.

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.

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.

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.

REGISTRATION FORM: CAT18

Register online at www.afpm.org
Register by July 20th – Save \$100

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)

Email

This is not a permanent address change.

Spouse/Guest Name (if attending)

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

**SAVE \$200 ON FULL REGISTRATION BY
RESERVING A ROOM IN THE AFPM ROOM BLOCK.**

Step 2: Meeting Registration

	By July 20	After July 20
<input type="checkbox"/> Member	\$ 925 _____	\$1025 _____
<input type="checkbox"/> Non-Member	\$1550 _____	\$1650 _____
<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

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

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 policies and ethics code. [Click here to review AFPM policies.](#))

Step 4: Hotel Reservation

Hotel Reservation requests must be accompanied by paid conference registration to be processed. Room rate is \$149 single/double occupancy at the Royal Sonesta Hotel, Houston, TX

Arrival Date

Departure Date

If no dates are indicated, we will assign arrival Monday, August 20 and departure Wednesday, August 22.

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 acknowledgement of hotel. July 20 is the final cut-off date to reserve a room. Contact the hotel directly with changes or cancellations beginning July 27, 2018.

Send suite requests to Kira Short at catexhibits@afpm.org.