

2016 AFPM CAT CRACKER PANEL

Process Panel



Ann Benoit is the FCC Technical Service Americas Leader for Grace Catalyst Technologies. Prior to joining Grace, she worked at a gulf coast refinery. During her tenure at the refinery, she held various positions such as FCCU process engineer, economic analyst, and logistics manager. She holds a BSChE from Tennessee Technological University. She has 15 years of refinery and catalyst experience.

Luis Bougrat is an 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. Luis holds a BSChE from the Rose-Hulman Institute of Technology in Terre Haute, IN.



Ray Fletcher currently supports CPFD Software in the application of Computational Particle Fluid Dynamics within the FCC unit. During the last 28 years, he has focused his career in the refining industry with the vast majority being directly related to the Fluidized Catalytic Cracker. Ray worked as a process engineer for both Texaco and Shell Oil with focus on the FCC, catalytic reformers, hydrotreaters, alkylation, catalytic polymerization and refinery linear modeling. Ray has also worked for several years for Akzo Nobel, Albemarle, Intercat and Johnson Matthey where he acquired a solid basis in catalysis including both Y-based zeolitic catalysts plus various additive technologies. Ray has published over 45 times during the course of the last 28 years. In his spare time, he also provides consulting services to the FCC industry. Ray holds a bachelor's degree in Chemical Engineering from the University of Washington.



Karthik Rajasekaran is a process engineer with Motiva Enterprises at the Norco refinery in Norco, LA. He has 9 years of direct operations support experience as a process engineer, which includes support of utilities systems, ethylene steam crackers, and most recently, the catalytic cracking unit (CCU).

2016 AFPM CAT CRACKER PANEL



Bryan Wagner is a Lead Process Engineer with Phillips 66 at the Sweeny refinery. He has been with the company for 7 years and has had engineering job assignments in crude distillation, hydroprocessing, cryogenic separation, operations planning and optimization, and FCC. He holds a B.S. in Chemical Engineering from Texas A&M University.

Mechanical Panel

John Borer is the Global Quality Assurance leader for Flint Hills Resources within the Corporate Operations Excellence Group. He has 30+ years in mechanical integrity and fixed equipment fabrication and inspection. John spent 10 years with UOP Inspection Services, and the last 27 years with Flint Hills in various leadership roles including Chief inspector at the Pine Bend Refinery.



Larry Carper is an independent FCCU mechanical equipment consultant and owner of Carper Consulting Services, LLC located in the Houston area. He has over 39 years of hands on FCCU experience starting his career in 1977 at Amoco Oil Company's Yorktown, Virginia refinery. Later he transferred to Amoco's Chicago area central engineering group focusing on static mechanical equipment, primarily FCCUs. While in Chicago and later transferring to the Houston area, he provided SME support for major capital improvement projects and operating units prior to and during maintenance events. Following the BP and Amoco merger in 1999, Larry continued to provide FCCU mechanical Equipment SME support to various BP and BP joint venture refineries around the globe. Later in his career at BP he actively participated in the API Refractory Task Force prior to his retirement in March 2009. Larry holds a BSME from Virginia Polytechnic Institute and State University.

John Hood has more than 48 years of experience in mechanical design, fabrication and field installation of production and refining equipment, with 27 years of experience in the refining industry at Stone & Webster Process Technology. Six years as Reservist with USAF 205th GEEIA Squadron of OANG as AC&W Radar installation and repair, held top secret security clearance. He shares in U.S. patent for Riser Termination Device. He currently monitors the Projects in construction compliance for Process Equipment Technology department.

2016 AFPM CAT CRACKER PANEL



Keith Parker I have worked in the Petrochemical Industry for 22 years being a certified API inspector for the last 17 years. He's worked numerous outages and/or turnarounds along with new construction and damage assessments along the way. Prior to achieving his API certification, he was ASNT certified Level 2 technician in UT/MT/PT.

Keith's training was hands on. He would read the collected data and review the findings from the previous inspection during his spare time while being a technician and compare this information with published manuals trying to familiarize himself with an FCCU. His goal was to be comfortable if ever given the opportunity as an API inspector. This opportunity came in 1998 at a Marathon Refinery in Catlettsburg, Kentucky by Chief inspector Mike Nichols. After that initial opportunity he was intrigued by the mystery of inspection findings and the intricate details of the FCCU unit as a whole. Since then Keith has continued his inspection career in FCC units with Consulting and Field Services in 2000 with Gary Page and looks forward to the future with the continuous metallurgical upgrades and engineered modifications furthering his education during his career.



Michael Sandacz is the Mechanical Technology Specialist at Honeywell - UOP and is responsible for the mechanical design of Fluidized Reactor Systems and the FCC process unit. Over the past 19 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 troubleshooting, and product development. In his current role, Michael is responsible for setting the mechanical technology policies, standard, and developing tools for UOP fluidized reactor systems worldwide.

Michael obtained his Bachelors of Science in Civil Engineering from the University of Illinois at Chicago.



Donald Shaw has over 50 years of mechanical engineering experience, 37 of that at Exxon Research and Engineering Company (ER&E now EMRE) until his retirement in 2000. At that time, he was the supervisor and worldwide expert/technology leader for Fluidized-Solids units (e.g., FCCUs, fluid cokers, alternative energy processes). While at ER&E/EMRE, his overall responsibilities included the design and development of fixed equipment and piping systems used in the petroleum refining industry. He participated in the design, repair, startup, and troubleshooting of a variety of mechanical equipment, including numerous field assignments and visits in the US and internationally. Don served on the ASME Code Sub Group on Elevated Temperature Design. Since retirement from EMRE,

he has worked on numerous teams providing mechanical development of hardware for step-out process technologies including gas-to-liquids, methanol-to-olefins, bio fuels, reforming, and other high temperature chemical processes. This effort includes pilot plants, demonstration units, and commercial plants. Don holds a BS in Mechanical Engineering and an MS in Civil Engineering.