



Coke Drum Reliability Workshop

November 10 & 11, 2010

Stress Engineering Services, Inc. is pleased to announce the fourth bi-annual Coke Drum Reliability Workshop meeting to be held November 10th and 11th, 2010. The purpose of this meeting is to provide updates on the **latest** coke drum technology and to continue to discuss and develop "Best Practices" in key areas to improve coke drum reliability, performance, and safety. This will minimize costs; provide technology, procedures and techniques to assist the plant engineer in decreasing downtime and increasing profitability.

Wednesday, November 10, 2010

- A Global Outlook On Delayed Coking With A Special Focus On Coke Drums
- Overview of Damage Mechanisms
- Life Assessment: Issues, Problems and Solutions
- Assessment of Distorted and Cracked Skirts
- Operations and Turnaround Planning of Multi-level Coke Drum Repairs
- Bulging Assessment and Repairs
- Delayed Coker Fired Heaters Design and Operation
- Coke Drum Flange Leaks During Thermal Transients
- Thermal Distributions are Not the Full Picture, There's Another Side to Every Story
- Introduction to Coking Process

Thursday, November 11, 2010

- Coke Drum Weld Repairs
- Acoustic Emission Test of Coke Drums
- TOFD
- Banana Effect Analysis
- Importance of the Drilling Procedure
- JIP Discussion

Attendee Profile: Engineers, Managers and Inspectors that are involved with the operation, maintenance and design of coke drums who wish to increase their knowledge on the key aspects of designing and maintaining fixed equipment.

Registration: Please see the attached registration form.

Location: Stress Engineering Services, Inc., located at 13610 Westland East Blvd., Houston, TX 77041. The facility is off Highway 290 in just northwest of South Houston Parkway (Beltway 8).

Information: Contact Brittany Graybill, E-mail: brittany.graybill@stress.com or Phone 281-955-2900 ext. 1158

2010 Presenters

Les Antalffy, Executive Director—Process Technology and Engineering, Fluor Enterprises, Inc.

Les Antalffy joined Fluor in Houston in 1973 where he is currently an Executive Director in the Process Technology and Engineering Department. His professional background has been in high pressure and high temperature equipment and Delayed Coking. He is a Fluor Senior Fellow, a Fellow of the American Society of Mechanical Engineers, a registered Professional Engineer in the State of Texas and a Chartered Engineer in Australia. Les graduated from the University of Adelaide in South Australia with a baccalaureate degree in Mechanical Engineering in 1970 and with an MBA from the Sam Houston State University in Huntsville, Texas, in 1980. Les currently heads Fluor's Delayed Coking Group in Houston responsible for mechanical aspects of Delayed Coking equipment, cokedrum deheading equipment, cokedrums and associated equipment. Les has 10 US patents related to Delayed Coking with 2 other patents pending.

Mike Knowles, Fluor Enterprises, Inc.

Mike is a Mechanical Engineer and has been with Fluor for 18 years. The last sixteen years he has been focused on coker projects which have included cokedrum revamps and new construction. These projects have afforded him the opportunity to experience all phases of a cokedrum's life: design, fabrication, testing, shipment, installation and operation. Presently, Mike is working in Fluor's Delayed Coking Group in Houston which specializes in cokedrums, cokedrum deheading equipment and other associated equipment. Mike graduated from Texas A&M University in 1986 with a baccalaureate degree in Mechanical Engineering and from the University of Texas at Arlington in 1992 with a masters degree in Mechanical Engineering.

Mahmod Samman, Ph.D., P.E., Senior Associate, Stress Engineering Services, Inc.

Dr. Samman has 25 years of engineering experience including 18 years of work on cokedrum analysis, design, testing, assessment, and troubleshooting. He received his Ph.D. in Engineering Mechanics from Duke University and is a licensed professional engineer in Texas. He has over 30 publications, one US patent, and numerous industry reports. He is a member of the ASME/API Joint Committee on Fitness-For-Service which writes the API-579/ASME-FFS standard. He received several awards including a Fulbright Scholarship, the Young-Engineer-of-the-Year Award from the City of Houston, a national internship award from the Leadership Development Initiative program of ASME, and the Herbert Allen Award from the South Texas Section of ASME. In addition to his consulting work, he has taught a graduate course in finite element analysis at the University of Houston.

Gary Gianzon, Heavy Oil Technologist, Marathon Oil

Mr. Gianzon is a Heavy Oil Technologist at Marathon Petroleum. He has had 18 years of experience in the refining industry, including 10 years of Coking experience.

Roger Cordes, Ph.D., P.E., Senior Associate, Stress Engineering Services, Inc.

Roger is involved with a wide variety of solid mechanics projects for SES' Floating Production Systems and Fitness-For-Service groups. His work is generally focused on solid mechanics analyses including strength and fatigue assessments. He is regularly involved in pressure vessel problems, contact problems, damage evolution, dynamic/impact simulations, post-buckling behavior, thermal behavior, and crack mode involvement in crack assessment projects at SES including prediction of crack growth rates and component life, maximum acceptable initial flaw size studies, and forensic work. Roger has a B.S.M. in Engineering Mechanics from the University of Arkansas, a Masters in Engineering from Clemson University, and a Ph.D. from Northwestern University. He is a licensed Professional Engineer in Texas and is on the ASME Boiler & Pressure Vessel Code's Task Group on Design for Section VIII, Division 3.

Sim Romero, Principal Consultant, KBC Advanced Technologies

Sim Romero is a Principal Consultant with KBC Advanced Technologies. Mr. Romero has 30 years of experience in delayed coking and heavy oils. His expertise includes simulating delayed coker operations, test run execution and analysis, delayed coker yields and furnace model development, unit optimization and reliability management, unit troubleshooting, unit start-up and general delayed coker operations. Additionally, Mr. Romero has expertise in other heavy oil operations—vacuum units, visbreakers, ROSE and solvent deasphalting units. Mr. Romero holds a degree from the University of New Mexico (BSChE).

Pierre Du Plessis, P.Eng., Mechanical Engineering Manager, Suncor Energy

Pierre Du Plessis is a BSc, BEng, MBA, P.Eng. employed at Suncor Energy in Fort McMurray, Alberta since 2001. He is the Mechanical Engineering Manager for Sustaining Projects and is involved in engineering support for small projects. One of his specialty projects is the forecasting of remaining life of the cokers at the Oil Sands plant of Suncor. He has worked closely together with SES over the past few years to develop criteria for evaluating the condition of cokers. He also formulated alternatives for replacement of the cokers which form part of a major initiative.

Robert Bell, Coker Process Specialist, Chevron

Robert Bell graduated from Auburn University with a BS in Chemical Engineering. He has worked at Chevron for 29 years and has been involved with Chevron's Coker units for the past 16 years. Mr. Bell's official work title is Coker Process Specialist and he is the leader of the Chevron Coker Business Improvement Network.

Robert Bell graduated from Auburn University with a BS in Chemical Engineering. He has worked at Chevron for 29 years and has been involved with Chevron's Coker units for the past 16 years. Mr. Bell's official work title is Coker Process Specialist and he is the leader of the Chevron Coker Business Improvement Network.

Steve Hoysan, Ph.D., PE, Staff Consultant, Stress Engineering Services, Inc.

Prior to joining Stress Engineering Services, Dr. Hoysan was a research and development engineer in the aerospace industry, and worked with a team displaying glass and beverage can industries, performed stress analysis in the aerospace industry, and worked with a team designing and analyzing offshore platforms for the petroleum industry. He has a broad experience in applied mechanics and specializes in structural and solid mechanics, with an emphasis on physical and mathematical modeling of mechanical systems. Dr. Hoysan has a Ph.D. in Mechanical Engineering from Carnegie Mellon University and is a licensed Professional Engineer in Texas and Georgia.

Prior to joining Stress Engineering Services, Dr. Hoysan was a research and development engineer in the aerospace industry, and worked with a team displaying glass and beverage can industries, performed stress analysis in the aerospace industry, and worked with a team designing and analyzing offshore platforms for the petroleum industry. He has a broad experience in applied mechanics and specializes in structural and solid mechanics, with an emphasis on physical and mathematical modeling of mechanical systems. Dr. Hoysan has a Ph.D. in Mechanical Engineering from Carnegie Mellon University and is a licensed Professional Engineer in Texas and Georgia.

Julian Bedoya, Associate, Stress Engineering Services, Inc.

Julian has been with Stress Engineering Services for 5 years. His work typically involves linear and nonlinear finite element analyses applied to structures, coked drum skirts, coked drums, heat exchangers, and pressure vessels in general. Specialties include analyses using heat transfer and coupled thermo-mechanical systems with conduction, convection, and radiation. Much of the analysis work consists of problems involving contact, plasticity, ratcheting, and ASME strength and fatigue assessments. Julian also has experience installing high temperature straining gauges and thermocouples in coked drums, as well as minimum design metal temperature determination for different pressure vessels. Julian has a M.S. in Biomedical Engineering from Texas A&M University and a B.S. in Mechanical Engineering from Florida International University. Julian is fluent in Portuguese and Spanish and willing to travel.

Julian has been with Stress Engineering Services for 5 years. His work typically involves linear and nonlinear finite element analyses applied to structures, coked drum skirts, coked drums, heat exchangers, and pressure vessels in general. Specialties include analyses using heat transfer and coupled thermo-mechanical systems with conduction, convection, and radiation. Much of the analysis work consists of problems involving contact, plasticity, ratcheting, and ASME strength and fatigue assessments. Julian also has experience installing high temperature straining gauges and thermocouples in coked drums, as well as minimum design metal temperature determination for different pressure vessels. Julian has a M.S. in Biomedical Engineering from Texas A&M University and a B.S. in Mechanical Engineering from Florida International University. Julian is fluent in Portuguese and Spanish and willing to travel.

Gary Pitman, Coking.com

Gary Pitman's roots are in the coker as a unit operator, and then moved on to maintenance and turnaround planning at ARCO/BP refineries. In 1998 he co-founded Coking.com with Paul Orlowski to promote Safety and Reliability in the coker. Gary participated in the operator training and start-up commissioning of the Hovensa Coker in the Virgin Islands. Before long he was a manager for Turner Industries supervising maintenance staff of 185. The last 6 years Gary has been consulting at cokers around the world.

Gary Pitman's roots are in the coker as a unit operator, and then moved on to maintenance and turnaround planning at ARCO/BP refineries. In 1998 he co-founded Coking.com with Paul Orlowski to promote Safety and Reliability in the coker. Gary participated in the operator training and start-up commissioning of the Hovensa Coker in the Virgin Islands. Before long he was a manager for Turner Industries supervising maintenance staff of 185. The last 6 years Gary has been consulting at cokers around the world.

Howard Sherman, Senior Inspector, LyondellBasell

Howard Sherman is a Senior Inspector with LyondellBasell, Houston Refining and has 23 years of refining experience which includes, 12 years as an operator on multiply petroleum refining unit, 4 years as an inspector for City of Petroleum and 5 years with ConocoPhillips as a Coker unit inspector, prior to his current assignment with LyondellBasell. Howard holds a 510, 570 & 653 certification through API. His varied background provided an excellent foundation for his career within the petroleum industry.

Howard Sherman is a Senior Inspector with LyondellBasell, Houston Refining and has 23 years of refining experience which includes, 12 years as an operator on multiply petroleum refining unit, 4 years as an inspector for City of Petroleum and 5 years with ConocoPhillips as a Coker unit inspector, prior to his current assignment with LyondellBasell. Howard holds a 510, 570 & 653 certification through API. His varied background provided an excellent foundation for his career within the petroleum industry.

Claudio Allevato, Corp. LIII, Principal, Stress Engineering Services, Inc.

Claudio Allevato is specialized in non-destructive inspection of pressure vessel, piping systems, reactors and other equipment. He has extensive experience on detection of cracking on delayed coked drums. He is a world recognized authority in the application and analysis of Acoustic Emission Testing (AET) and its application on coked drums and other vessels and piping. He has performed a number of research projects using AET. Claudio has a B.Sc. in Metallurgical Engineering from Fluminense Federal University and is a certified AE Level III per ASNT TC1A in AET.

Claudio Allevato is specialized in non-destructive inspection of pressure vessel, piping systems, reactors and other equipment. He has extensive experience on detection of cracking on delayed coked drums. He is a world recognized authority in the application and analysis of Acoustic Emission Testing (AET) and its application on coked drums and other vessels and piping. He has performed a number of research projects using AET. Claudio has a B.Sc. in Metallurgical Engineering from Fluminense Federal University and is a certified AE Level III per ASNT TC1A in AET.

Richard Boswell P.E., Principal, Stress Engineering Services, Inc.

Richard Boswell has over 30 years of experience in modeling. He also performs straining gage testing and analysis of Coke Drums including long term structural drums for design load studies, process modification and remaining life evaluation. Richard has a B.S. in Mechanical Engineering from University of Alabama and a M.S. from West Virginia University.

Richard Boswell has over 30 years of experience in modeling. He also performs straining gage testing and analysis of Coke Drums including long term structural drums for design load studies, process modification and remaining life evaluation. Richard has a B.S. in Mechanical Engineering from University of Alabama and a M.S. from West Virginia University.

David Bajula, Director - Advanced NDT Services, Acuren Inspection, Inc.

He currently works with Acuren Inspection as Director of Advanced Services out of La Porte, TX office. He has broad experience in NDT specializing in Ultrasonic and EMI/EMT/ACCP Level III in UT, ET, RT, MT, PT and VT an ASNT Fellow. He has been a CWI, API-QUTE (API-Shearwave), API-QUSE (API-Crack Sizing) and 510. He is active with ASNT and API committees and passionate about Advanced NDT services and considered a specialist in Coke Drum inspections.

He currently works with Acuren Inspection as Director of Advanced Services out of La Porte, TX office. He has broad experience in NDT specializing in Ultrasonic and EMI/EMT/ACCP Level III in UT, ET, RT, MT, PT and VT an ASNT Fellow. He has been a CWI, API-QUTE (API-Shearwave), API-QUSE (API-Crack Sizing) and 510. He is active with ASNT and API committees and passionate about Advanced NDT services and considered a specialist in Coke Drum inspections.

Lisa Ely, Stress Engineering Services, Inc.

Miss Ely joined Stress Engineering Services in June 2008 bringing with her 3 years of oil and gas industry experience including on and off-shore directional drilling, down-hole data interpretation, and reliability engineering. Her work is currently focused on the fitness for service evaluation of in and out of service pressure vessels using non-destructive testing methods. Miss Ely has a B.S. in Chemical Engineering from Mississippi State University.

Registrant Information			
Name:		Title:	
Company:			
Address:			
City, State Zip:			
Phone:		Fax:	
E-Mail:			
Emergency Contact:			
Method of Payment		Cancellation Policy	
<u>Registration Fee:</u>	<ul style="list-style-type: none"> Cancellations received by October 30, 2010 will receive a full refund. Cancellations received after October 30th will be charged a \$100.00 cancellation fee. If this seminar is cancelled, a full seminar refund will be given to those who have paid. 		
Payments received on or before October 30 <input type="checkbox"/> \$495.00			
Payments received after October 30 <input type="checkbox"/> \$595.00			
By Check <input type="checkbox"/> Check (Make checks payable to Stress Engineering Services, Inc.)	By Credit Card <input type="checkbox"/> Credit Card (Please see below)		
Credit Card:	<input type="checkbox"/> MasterCard <input type="checkbox"/> VISA <input type="checkbox"/> American Express <input type="checkbox"/> Wire Transfer*		
Card Number:		Expiration:	
Name on Card:			
I understand that a charge in the amount of \$495.00 or \$595.00 will be billed against the card listed above, payable to Stress Engineering Services. My signature below confirms my agreement to this charge.			
Signature:			



If you have special needs, please indicate here; _____

RETURN THIS FORM AND PAYMENT:
Mail to:

 Stress Engineering Services
 Attn: Brittany Graybill
 13800 Westfair East Drive
 Houston, TX 77041-1101

Email to: brittany.graybill@stress.com
Fax to: (281) 955-2638 **Attn:** Brittany Graybill