

Structural Integrity of Coke Drums

The advent of modern, automated bottom and top unheading devices, new feed injection techniques, and the push for more production has reduced cycle times on coke drums and created new life cycle issues. It is more important than ever for refiners to receive the latest updates on coke drum technology and to continue to discuss and develop "Best Practices".

Participants will hone skills needed to understand coke drum mechanical and structural failure modes, manage their integrity in an efficient manner, and improve reliability, performance, and safety. This will minimize costs while providing technology, procedures, and techniques to assist the plant engineer and inspector in decreasing down time and increasing profitability.

This course will be taught in **Portuguese and Spanish**

What You Will Learn Who Should Attend

- Introduction of Coke Drums as Pressure Vessels
- Overview of structural failure modes in Coke Drums
- Overview of RP API 579 for Coke Drums
- Overview of API 934G **Recommended Practice**
- Overview of Coke Drum Metallurgy
- Review of Coke Drum Design History
- Life Management
- Laser Scanning
- Bulge Severity Assessments
- · Benefits of Strain Gauge and Temperature Monitoring
- Skirt Assessments
- · Cone Assessments
- Evaluating Cracks
- Repairing Cracks
- Installing Unheaders
- Reducing Fatigue Damage with Process Changes
- **Developing Long Term Operation**
- Developing Inspection Plans
- · Coke Drum Inlet Flows
- Developing Repair and Replacement
- Coke Drum Vibration
- Anchor Bolts

Engineers, managers and inspectors that are involved with the operation, maintenance, design and purchase of coke drums.

Prerequisites

Familiarity with delayed cokers.

Presented in cooperation with



Stress Engineering Services, Inc. is an independent, full-service, engineering consulting firm providing services and solutions to the oil, chemical & refinery and power industries.

29-30 September 2014

Training starts at 9:00 and finishes at 18:00 both days. The program includes lunch and coffee/tea breaks. Attendees also receive a training manual that can serve as a valuable office reference. Dress code is casual.

Your Instructors



Luiz C. Largura Jr. is an Associate at Stress Engineering Services, Inc. He has a Master of Science degree in Structural Integrity from COPPE/UFRJ and a Bachelor in Mechanical Engineering from Instituto Militar de Engenharia – IME.

Before joining SES, he worked for Petrobras for 7 years with the Structural Integrity Group at the Research Center of Petrobras (CENPES).



Claudio Allevato is a Metallurgical Engineer who has specialized in Acoustic Emission Testing (AET) for over 35 years. He is a Certified AET Level III.

He has performed inspection projects and metallurgical studies for over 250 companies in North, Central and South America, as well as Europe and Japan.



Julian J. Bedoya, P.E. is a Senior Associate at Stress Engineering Services, Inc. Most of his work has centered on performing analyses of pressure vessels and pipelines to assess mechanical integrity for fitness for service.

He has also installed high temperature strain gauges and thermocouples to obtain measurements for later analyses of coke drums, and has performed numerous coke drum skirt design and analyses using finite element methods.



Course Fees

Early (ends 22 August 2014)

\$1,090

Regular

\$1,190

plus 5% ISS tax

Prices are in US dollars.

Course Pass is for training only. Add the Conference Pass to get complete admittance.

REGISTER NOW

regonline.com/RefCommRio

Early Registration Ends 22 August 2014

Payment

Due prior to the start of the training by Visa, Master Card, American Express, bank wire transfer or corporate check. Training fees will be charged to your credit card at the time of registration unless other arrangements have been made. Make checks payable to "Coking.com Inc."

Refund Policy

Fees are fully refundable until 8 September 2014 (three weeks before the event), after which a \$200 fee will be charged for cancellations. Registering for this course prior to 8 September 2014 will help maximize the probability that the course will proceed as planned. Cancellations after 22 September 2014 (1 week before class until 24 hours before class) are charged a 50% fee. All other cancellations and no-shows are non-refundable. Substitutions are allowed. Submit all cancellations and transfers in writing, by email or by fax.

Please contact us for more information on Refining Community policies.

Hotel Information

Sheraton Rio Hotel & Resort

Av. Niemeyer, 121 - Leblon Rio de Janeiro – RJ 22450-220, Brazil +55 21 2529 1122 Sheraton.com/Rio

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We want you to be safe and reliable

We bring together the Coker and CatCracker operator and reliability technicians, process and mechanical engineers, inspectors, supervisors, suppliers, and EPC's to learn from each other's expertise and improve productivity while lowering the risk.

> Join the Refining Community! RefiningCommunity.com

The Coking & CatCracking Conference is now



We are returning to Rio De Janeiro!

At our first Rio conference in 2009, we had an attendance of approximately 175 delegates from multiple regional companies including a strong showing from Petrobras.

The training and conference at RefComm has been enthusiastically embraced by YPF, Shell, Axion, Ecopetrol, PDVSA, Petrobras, and many regional vendor companies. Simultaneous interpretation during the conference will be offered in Portuguese, Spanish, and English.

Schedule of events and other classes offered at RefComm during the week of 29 September – 3 October 2014

Thursday Monday-Tuesday: Training Wednesday Delayed Coker Operations and Reliability Coker Process, Design, and Troubleshooting Presentations Structural Integrity of Coke Drums Tour the Flowserve **Breakout Discussions** manufacturing plant **FCCU Process and Recent Developments** Workgroups **Understanding Fixed Equipment Integrity** Tuesday Informal Reception Exhibition Wednesday – Thursday



Friday