



—TRAINING—  
October 22-23, 2012 \$1175

## COKER FUNDAMENTALS TRAINING

SAFETY, PROCESS & OPERATIONS AND THEIR IMPACT ON THE DELAYED COKER

As crude oils get heavier, refiners are looking for ways to increase the yield from the bottom of the barrel. They are turning to delayed coking and upgrading. This training covers process fundamentals and mechanical systems used in the operation of a delayed coker. The course is for those who are new to the design, process engineering, operations and maintenance of a delayed coker unit and for experienced workers who want to broaden their understanding of the unit.

### WHAT YOU WILL LEARN

#### Day 1 and 2 (Monday and Tuesday)

##### Unit Overview

- What is a delayed coker
- History of delayed coking
- Why is it important (simple economics)
- Where are they typically found and why
- How does it fit into the overall refinery scheme

##### Process Description

- Process flow
- Semi-Continuous Batch Operation
- Chemistry
- Inputs and outputs
- Coke morphology
- Alternatives to Delayed Coking

##### Major Equipment Review

- Unit Feed Systems
- Heat Exchange (Preheat)
- Feed Surge or Combination Tower
- Furnace Operations
- Switch Valves
- Manifold Valves
- Overhead Valves
- Coke Drums
- Coke Drum Connections to the Process
- Fractionation
- Blowdown Operations
- Gas Plant
- Quenching/Cooling

- Draining
- Deheading
- Decoking Water Circulation
- Cutting Equipment
- Coke Movement Equipment

#### Coker Safety

#### Ownership of Safety and PSM

- Process Safety Management (PSM)
- Ownership of Safety
- Equipment

#### Common Process and Mechanical Reliability Issues

- Unit Feed Systems
- Heat Exchange (Preheat)
- Feed Surge or Combo Tower Bottom
- Furnace Operations
- Switch Deck Valves
- Un-heading Devices
- Cutting System
- Coke Drum
- Fractionation
- Blowdown Operations
- Gas Plant

#### Glossary

#### Appendix - Recent Delayed Coking Related Patents

## YOUR INSTRUCTORS

**Evan Hyde** is president of Telaxe, a coker consulting firm. He previously was president of C2 Nano Technology where they researched surface treatments to combat fouling and corrosion issues in cokers and other petrochemical process units. He was a Senior Engineering Advisor for Becht Engineering Co., Inc. New Jersey. He has consulted on processing improvement and reliability initiatives for coking clients around the world. He also participated in onsite peer assessments of Coker Units at eight refineries which included improvements in maintenance work practices, process enhancements, and turnaround scope optimization.



Prior to joining Becht, Evan worked for ExxonMobil Research and Engineering, as a process engineer, with assignments in research, and troubleshooting for heavy oil upgrading equipment. He holds a B.S. of Chemical Engineering from Pennsylvania State University.

**Gary Pitman** worked in the delayed coker as an operator, then moved on to maintenance and turnaround planning at ARCO/BP refineries. In 1998 he co-founded Coking.com with Paul Orłowski to promote Safety and Reliability in the coker.



Gary commissioned the Hovensa Coker in the Virgin Islands doing training then supervising their maintenance staff of 185. He has done Coker Site Safety Audits in Asia, Europe, South America and North America and currently is the subject matter expert for new product development for major manufacturers of delayed coking equipment. With his vast experience working with coker people close to the iron, Mr. Coking.com is in high demand for consulting on unheading, drilling, operations, design, training and commissioning with his start-up team.

### PREREQUISITES

An understanding of refining processes and petroleum refinery terminology is useful, but is not required for this. In general, attendees should come prepared to share what they want to learn prior to returning to their workplace.

### PAYMENT AND CANCELLATIONS

Course Fee: Early \$1175 (Ends September 17) ~ Regular \$1275.

Payment: Due prior to the start of the training by Visa, Master Card, American Express, 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 April 9 (about three weeks before the event), after which a \$200 fee will be charged for cancellations. Registering for this course prior to April 9 will help maximize the probability that the course will proceed as planned. Cancellations after April 23 (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. All cancellations and transfers need to be submitted in writing, by email or by fax.

For more information on Refining Community policies please contact us.

### CONTACT US

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### REGISTER

Website: [www.Coking.com](http://www.Coking.com)  
More Training: [www.RefiningCommunity.com](http://www.RefiningCommunity.com)  
Register: opens May 14

