

# Auto-Refrigeration / Brittle Fracture Prevention

This one-day training course will provide an introduction on how to have an effective auto-refrigeration / brittle fracture prevention program. It will highlight PHA methods that can effectively identify potential auto-refrigeration scenarios and provide insight into developing effective mitigation methods.

You will come away from this training with a greater understanding of this process safety hazard and how to more effectively utilize fitness-for-service equipment minimum allowable temperature (MAT) information within your process safety management system.

## What You Will Learn

- Industry Incidents
- Nomenclature
- Brittle Fracture Basics
- AR/BF Prevention Program
- Example Process Scenarios
- Vessel Analysis
- Post-Excursion Investigation and Inspection
- · Auto-Refrigeration Training
- · Upstream and Refinery Potential
- · Recovery Guidelines
- · Review Team
- · PHA Methods
- Example Process Scenarios
- General Observations

## Who Should Attend

- Corporate Process Safety Leadership
- Corporate Reliability and Inspection Leadership
- Corporate Engineering Leadership
- Site Process Safety Leadership
- Site Managers
- Site Reliability and Inspection Leadership

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.

## **January 21, 2015**

Training starts at 8:00 am and finishes at 5:00 pm. The program includes lunch and coffee breaks. Attendees also receive a training manual that can serve as a valuable office reference. Dress code is casual.

## Your Instructor



### Ralph E. King, PE

is a 37-year experienced mechanical engineer with a broad range of technical experiences. Having recently retired from LyondellBasell as a Principal Engineering Advisor of their Global Engineering Services organization, Ralph brings a broad range of engineering experiences including maintenance/reliability engineering of fixed, fired and rotating equipment, process/production engineering and process safety.

With extensive experience in evaluating equipment for auto-refrigeration and brittle fracture potential utilizing API-579/ASME FFS-1 methodologies coupled with subject focused process hazards analysis (PHA) methods, his current responsibilities include providing staff technical support for the SES Plant Services Division which includes reliability engineering, equipment fitness-forservice evaluations, fixed equipment design, selection and evaluation, leading process hazards evaluations and incident investigations.

Ralph has a BSME degree from the University of Houston and is a licensed in South Carolina as a professional engineer.



## Course Fees

**Early** (ends December 12, 2014)

\$695

Regular

\$795

#### Prices are in US dollars.

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

## REGISTER NOW

regonline.com/RefCommVegas

## **Early Registration Ends December 12, 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 December 29, 2014 (three weeks before the event), after which a \$200 fee will be charged for cancellations. Registering for this course prior to December 29, 2014 will help maximize the probability that the course will proceed as planned. Cancellations after January 12, 2015 (1 week before class until 24 hours before class) are charged a 50% fee. All other cancellations and noshows 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

#### **Circus Circus Hotel**

2880 Las Vegas Blvd S. Las Vegas, Nevada +1 877.434.9175 circuscircus.com/las\_vegas\_hotel

Use the code **CW01REF**to receive a special room rate
when you book your reservation
with Circus Circus.



#### 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



#### Winterize for the next polar vortex

Join in the Thursday Winterize Conference as we discuss preparations for the safety challenges of subfreezing weather and actual operations during extreme winter conditions. Refiners and suppliers from around the world will share how they manage severe cold weather. Get practical and valuable guidance from industry experts be prepared for the next polar vortex.

Exhibition

### Schedule of events and other classes offered at RefComm during the week of January 19-23, 2015

Monday

Tuesday

Wednesday

Thursday

Friday

SRU Fundamentals

SRU Design and Optimization

SRU Operations and Troubleshooting, TGU Review

Auto-Refrigeration /
Brittle Fracture Prevention

Delayed Coker Operations and Reliability

Coker Process, Design, and Troubleshooting

FCCU Process and Recent Developments

Understanding Fixed Equipment Integrity

Winterize Conference

