



—TRAINING—
GALVESTON, TEXAS
MAY 1, 2012 \$620

STEAM FUNDAMENTALS

This course provides participants with the knowledge and skills needed to understand process reasons for heating, heat transfer basics, steam heating, design and troubleshooting.

WHO SHOULD ATTEND THIS COURSE

This interactive seminar provides valuable training for engineers, designers, operators, and maintenance personnel—particularly those involved in refinery steam-heating systems used for sulfur, acid gas, tail gas, coker, asphalt, and other heated processes.

WHAT YOU WILL LEARN

- Process reasons for heating:
 - Understanding the thermal objective
 - Liquid versus vapor lines
 - Piping, valves, and vessels
 - Typical heating requirements for refinery processes
 - Consequences of inadequate heating
- Heat transfer basics:
 - Heat versus temperature
 - Key drivers of heat transfer
 - Ways to enhance heat transfer
- Steam heating:
 - Unique aspects of steam versus other heating media
 - Most common methods of heating piping with steam
 - Relative benefits of different heating methods
- Key design considerations:
 - Key components of a steam heating system
 - Insulation selection
 - Thermal design approach
 - Dealing with pipe supports
 - Steam circuitry
 - Steam trap survey/selection
- Troubleshooting:
 - Systematic approach
 - Typical root causes

YOU WILL ALSO LEARN

This seminar not only provides participants with steam-heating fundamentals, but it also delivers practical application of those fundamentals to the steam-heating systems commonly found in refineries.

YOUR INSTRUCTOR

Jim Hartman is the Americas Sales Manager for Controls Southeast (CSI), a provider of Engineered Thermal Maintenance Systems for the petrochemical and chemical industries. Controls Southeast provides a variety of products which address thermal maintenance



for valves, instruments, pumps, vessels and tanks, in addition to pipe. Mr. Hartman received his graduate degree (MBA) from the University of Central Florida, Orlando, FL and a BS in Industrial Engineering from Wayne State University of Detroit, MI. Prior to CSI, Mr. Hartman spent eleven years involved in the design and manufacture of antennas for the wireless industry.

COMPREHENSIVE TRAINING SCHEDULE

The schedule shows how your course fits in with the exhibition, discussion groups, workshops and other classes offered at this venue this week.

Galveston April 30 - May 4

Monday	Tuesday	Wednesday	Thursday	Friday
<i>Training</i>		<i>Conference & Exhibition</i>		
FCCU Operations Fundamentals	Coking & CatCracking Safety and Reliability Seminar			
Process Support of FCC Operations	Presentations	Presentations	Workshops and Breakout Groups	
Coker Fundamentals				
Pumps Basics				
Integrity management: Cokedrums/FCCU				
	Steam Fundamentals			
	Exhibition starts Tuesday at 5:00pm, ends Thursday at 7:00pm			
Sulfur Recovery and Claus Plants	Sulfur Optimization, Simulators, Tailgas and Engineering			

Revised November 15

HOTEL

Moody Gardens Hotel
 7 Hope Boulevard
 Galveston, Texas 77554
 Phone (409) 741-8484
 Toll Free (888) 388-8484
 Hotel Website: www.MoodyGardensHotel.com

COURSE INFORMATION

May 1, 2012
 Class starts at 8:00am and will finish at 5:00pm.
 The program includes lunch and coffee/cookie breaks. Attendees also receive a class manual that can serve as a valuable office reference. Dress is casual for all seminars.

PAYMENT AND CANCELLATIONS

Course Fee: Early \$620 (Ends March 26) ~ Regular \$720.

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 "RefiningCommunity.com".

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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