ABOUT THE SPEAKERS

Greg Amentini is Product Manager for Twisted Tube products at Koch Heat Transfer Group. Greg has a BS in Chemistry from Baldwin-Wallace College. He has worked for 30 years in the chemical process industry with most of that time as an application engineer of various types of heat transfer equipment.

Richard T. Waibel, PhD is Director of Combustion Technology with the Burner Group at John Zink Company, LLC. He has been in burner research, development and engineering design since 1972. Dr. Waibel joined John Zink in 1983. He is currently President of the International Flame Research Foundation and was Chairman of the American Flame Research Committee from 1995 through 2007.

Bill Watson is founder and President of Heat Transfer Specialists of Louisiana, Inc. He has a BS in Engineering Technology from Texas A&M University. His company represents a number of the largest manufacturers of heat transfer and combustion equipment in the process industry. Bill has 20 years of experience providing heat transfer solutions.

FOR ADDITIONAL INFORMATION ABOUT THE SEMINAR, CONTACT:

Dr. Ning Zhang, Assistant Professor
Department of Engineering
McNeese State University
Phone: (337) 475-5873 Fax: (337) 475-5286
nzhang@mcneese.edu

Heat Transfer / Combustion Fundamentals with Applications

Sponsored by the
Lake Area Industries/McNeese Engineering Partnership

September 16th, 2009
Alumni Center
McNeese State University Campus

Heat Transfer / Combustion Fundamentals with Applications

ABOUT THE COURSE

A detailed list of the topics to be covered in this course appears on the adjacent column.

REGISTRATION

- Seminar fees are $100 per individual for members of LAI/MEP and $300 for non-members. Fee includes registration, course materials, lunch and refreshments.
- Checks should be made payable to MSU Foundation, Account No. 0123 and sent to the address below by Thursday September 10th, 2009.

Mrs. Sharon Miller, Administrative Coordinator
McNeese State University
Box 91834
Lake Charles, LA 70609
(337) 562-4268
lai-mep@mcneese.edu

- 0.8 CEU and 8 PDH will be awarded to attendees.
- Parking passes will be provided to attendees.

PROGRAM SCHEDULE

September 16th: **7:30 Registration, JUICE, COFFEE & ROLLS, Seminar 8:00 a.m. – 12:00 noon, Lunch 12:00 pm to 1:00 pm, Seminar 1:00 pm to 5:00 pm**

Morning, September 16th, 2009

- Principles of heat transfer refresher
- Heat exchanger design objectives
- Heat Transfer correlations and their relationship to Reynolds number, Prandtl number, conductivity, viscosity, pressure drop
- Discussion of fouling factors
- Tubular technologies – applications / limitations
  Double pipe / hairpin
  Shell & tube
  Twisted tube
  High pressure
- Compact (plate) technologies – applications / limitations
  Theory / history
  Gasketed plate exchangers
  Welded plate exchanger

Afternoon, September 16th, 2009

- Combustion overview
- Process burner basics of combustion
  Heat transfer
  Fluid flow
  Burner fundamentals
  Burner selection for various heater designs
  Fuels
  Combustion safety
  Diagnose flame pattern / performance
- Flare systems
  Types
  Safety
  Noise
  Emissions
  Radiation & smoke control
  Flare selection
  Stack Design
  Pilots
  Monitoring
  Efficiency