

## SPEAKERS

**Mr. Bill Gibson** from Petro-Chem. Mr. Gibson has over twenty-five years experience in the design, computer modeling, field-testing, operations, and manufacture of direct fired heaters and boilers. He is a recognized industry expert in the areas of black oil processing, NOx reduction technologies, and advanced computer models associated with the minimization and equalization of peak radiant flux rates and tube metal temperatures. Mr. Gibson has developed proprietary tube side computer models for analyzing the coking and film cracking tendencies of delayed coker feedstocks. These advanced programs have been instrumental in extending existing coker heater run lengths and assuring maximum run lengths for new delayed coker heaters. He also has extensive experience in revamp techniques associated with modifying existing fired heaters in order to improve efficiency, increase capacity, and reduce emissions.

**Mr. John McDonald** from Zeeco Inc. Mr. McDonald has a degree in Industrial Technology from Northeastern State University in Tahlequah, Oklahoma. He has twenty-seven years of experience in the design of industrial burner equipment. He has been involved in the development of numerous burners, including the latest generation of Ultra Low NOx burners and has worked with nearly every major US refining and chemical company in the application of burner products. John is currently employed by Zeeco, Inc. in Tulsa, Oklahoma as a Technical Engineer.

**Ms. Gayla Broostin** from Zeeco Inc. Ms. Broostin holds a B.S. degree in Mechanical Engineering from Oklahoma State University. She has seven years of experience in the combustion industry, primarily in the design and sales of industrial burner equipment. She also spent two working in the process control industry. She is currently employed by Zeeco, Inc. in Tulsa Oklahoma as an Application Engineer in their Burner Division.

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# HEATER - BURNER DESIGN, OPERATION, MAINTENANCE AND OPTIMIZATION



**Sponsored by**  
**Lake Area Industries/McNeese Engineering Partnership**

*April 16-17, 2002*  
*Alumni Center*  
*McNeese State University Campus*

## **ABOUT THE SEMINAR**

This is the first LAI/MEP seminar for the 2002 season. Responding to numerous requests by local industries, the LAI/MEP Board of Trustees is offering a seminar on Heater - Burner Design, Operation, Maintenance and Optimization. The invited speakers are experts in their areas with many years of field experience. Lunch and refreshments will be provided during the seminar. The seminar attendance is limited to 40 participants.

## **WHO SHOULD ATTEND**

It is expected that personnel from industries that operate heaters and burners will benefit from attendance at this seminar.

## **REGISTRATION**

- Cost is \$150 per individual for employees of LAI/MEP member companies and \$450 per person for all others.
- Checks should be made payable to MSU Foundation, Account No. 0123 and sent to the address below by April 11<sup>th</sup>.

Mrs. Betty Anderson, Director of Continuing Education  
McNeese State University  
P.O. Box 92735  
Lake Charles, LA 70609  
(337) 475-5127  
anderson@mail.mcneese.edu

- Lunch is included. The attendees will earn 1.6 CEUs and 16 PDHs. McNeese parking passes will be provided.

## **Program Schedule**

### **Tuesday - Heater Design, Operation and Maintenance**

- 7:45 am Heater Mechanical Design  
Types of heaters, Heater components,  
Heat distribution, Instrumentation  
Pass balancing, Automation, Air preheating systems  
Environmental requirements, New developments,  
Common design mistakes and solutions
- 11:45 am Lunch
- 12:15 pm Heater Operation and Maintenance  
Basic operation and optimization, Safety  
Troubleshooting, Air Preheater operation  
Routine maintenance, Turnaround maintenance and  
inspection, Pre-T/A, T/A, Post T/A
- 4:15 pm Adjourn

### **Wednesday - Burner Design, Operation and Maintenance**

- 7:45 am Burner Design  
Types of burners, Burner components  
Heat generation and transfer, Instrumentation  
Automation, Fuels and combustion, Noise control  
Environmental requirements, New developments,  
Common design mistakes and solutions
- 11:45 am Lunch
- 12:15 pm Burner Operation and Maintenance  
Basic operation and optimization, Flame patterns  
Combustion air control, Safety, Environmental  
Troubleshooting, Routine maintenance, Turnaround  
maintenance and inspection
- 4:15 pm Adjourn