Refractory Training Course

Presented By:
Cannon & Hancock CC
In Conjunction With
Dickinson Refractory Training CC

25th – 29th February 2008
at
Maccauvlei Conference Centre,
Gauteng, South Africa
THE PROBLEM

Refractories are a critical part of the operation of most high temperature industrial processes and also play an essential role in many other industries. They are frequently a major cost item both in general maintenance and the unscheduled downtime of production units arising from premature refractory failure.

The depth of the subject is demonstrated by the three-year degree course in refractory technology, which is offered by universities throughout the world. However, the majority of refractory purchasers have had little, if any, formal training in refractory technology. Numerous books and technical papers are available, but none have been written specifically for refractory users.

Refractory technology is changing so rapidly and the price of refractory materials is continuing to escalate so rapidly, that all users must conduct regular value audits on their refractory purchases.
WHO SHOULD ATTEND?

The course is a necessity to people who have a responsibility for refractory purchases, installations and who are involved in a production function. The latter will find the programme of great value in understanding the relationship between refractories and process operations.

- Maintenance Engineers
- Buyers
- Metallurgists
- Management
- Refractory Supervisors
- Refractory Foremen

Over 850 delegates have attended the Training Course in a period of seven years:

- Engineers
- Installers
- Manufacturers
- Raw Material Suppliers
- End Users

WHY IS THIS COURSE DIFFERENT?

We will equip delegates with the necessary skills to assess the risk of refractory failure and to examine design concepts.

- purchase specifications
- materials
- installation
- heat-up
- operation
PROGRAMME

MODULE 1 - DAY 1 (Conference Centre)
- Tea /Coffee & Registration (07h45 - 08h30)
- Introduction
- Raw Materials
- Terminology
- Testing & Terminology
- Installation – skills & equipment
- Castables
- Bricks & Mortar

LUNCH

- Plant Visits – Delegates choice of visiting Brick Manufacturer (Vereeniging Refractories) or Monolithic Manufacturer (Calderys – formally Plibrico)

MODULE 2 – DAY 2 (Conference Centre)
- Tea /Coffee & Registration (07h45 - 08h30)
- Introduction
- World Industry Overview
- Basic Concepts
- Raw Materials

LUNCH
- Products
- Brick Quality
- Refractories Testing
- Thermal Conductivity Calculations
- Case Study Team Allocation

SUNSET CRUISE ON THE VAAL RIVER

DAY 3 (Conference Centre)
- Installation Concepts
- Anchors
- Videos – Installation Techniques

LUNCH
- Why Refractories Fail ?

DAY 4 (Conference Centre)
- Consistent Castables ?
- Brick Construction
• Equivalent Concepts
• Health & Safety (toxic materials, dumping, safety standards in refractory demolitions etc.)
• Group Work (1 hour)

LUNCH

• Presentation of case studies
• Installation: Cost vs Quality
• New Technology
• Questions

MODULE 3 - DAY 4 – PRACTICAL (Dickinson Refractory Training School)

INSTALLATION TECHNIQUES AND MATERIALS
• Gunning
• Ramming
• Castables
• Spray Cast

Brick Laying
• Good and Bad Techniques
• Good and Bad Bricks
• Good and Bad Mortars

4 EASY WAYS TO REGISTER

1. By phone
   (016) 4220911  Office (Kim Mason)
   082 783 0703  Darrol Biggs
   International + 27 16 420911

2. By fax
   (016) 422 4514
   International + 27 16 4224514

3. By Post
   Cannon & Hancock cc
   P.O. Box 2705
   Vereeniging
   1930
   Gauteng
   South Africa

4. By e-mail
   chlabs@mweb.co.za
# REGISTRATION FORM

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## PAYMENT INFORMATION

*Please ensure payment is made in full, on or before the day of the Training Course*

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<tbody>
<tr>
<td>Module 1 One Day (Refresher)</td>
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<td>Module 2 Three Day (Theory)</td>
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<td>Module 3 One Day (Practical)</td>
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Prices excl. VAT

- Attend Sun Set Cruise on Vaal River at no cost?  
  - yes  
  - no

**Note:**
1/ *Module 3, the practical day is limited to only 30 delegates.*
2/ Module 3 can only be attended in conjunction with Module 2.
3/ Accommodation costs are not included in the course fee.
4/ Course fees includes lunch and coffee and tea and course material.

*Cheques payable to: Cannon & Hancock CC*

Purchase Order No.: ..........................................................
MATERIALS & EQUIPMENT SPONSORS

- ACT MANUFACTURING
- CALDERYS
- DICKINSON REFRACTORY TRAINING
- MINERAL TECHNOLOGY SOUTH AFRICA (MTSA)
- PRO GUNNING
- VEREENIGING REFRACTORIES