

REFRACTORY TRAINING COURSE

FOR

Refineries & Petrochemical

PRESENTED BY:

CHB

SPONSORED BY:

**PETROMAN PETROLEUM CONSULTANTS, CALDERYS &
CAPE**

DATE: 30TH AUGUST TO 3RD SEPTEMBER 2015
at

VENUE: LE ROYAL MERIDIEN, ABU DHABI, UAE



REFRACTORIES

FOR

REFINERIES & PETROCHEMICAL

PRESENTED BY: CANNON & HANCOCK, BIGGS & ASSOC. CC

PAPERS PRESENTED BY :

DR JOHN HANCOCK & MR DARROL BIGGS (Combined 75 years' experience)

THE PROBLEM

Refractories are a critical part of the operation of most high temperature units namely; **FCCU, SRU, Reformers, Reactors, Fired Heaters, Wastes Heat Boilers, Sulphur Pits, Incinerators, Ducting and Stacks** to name a few. These linings are frequently a major cost item both in general maintenance and also the unscheduled downtime of production units arising from premature refractory failure.

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.

WHY IS THIS COURSE DIFFERENT?

The Course 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

WHO SHOULD ATTEND?

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

✓ Maintenance Engineers	✓ Project Management
✓ Inspectors	✓ Metallurgists
✓ Buyers	✓ Operators
✓ Production	✓ Refractory Supervisors

Over 550 delegates have attended the Training Course in a period of 12 years (**seating is typically limited to max. 30 delegates per course**).

Courses have been presented in **Australia, Bahrain, UK, Europe, South Africa, United Arab Emirates, Qatar and Indonesia**.

If you would like more information on the practicality of the course, please contact us and we will provide a list of the previous delegates for you to contact or visit : www.refractorytraining.com & www.chbinspection.com

REFERENCES

“Good overview of subjects - gained an understanding of practical & theoretical limitations also risk areas” – **FOSTER WHEELER**

“very informative and educational from an inspection point of view” – **FLUOR**

“course helped me with my knowledge of inspection and repair methods, thanks” – **SAPREF (SHELL/BP)**

“good focus on things to be aware of” – **ENGEN (PETRONAS)**

“Course very well delivered. Information was in depth and beneficial. I was able to relate the theory to my practical experience.” – **In-house course at Chevron Wales**

“what an excellent course” – **SASOL**

“good understanding of refractory technology and poses questions which require participants to think about” – **KANTEY & TEMPLER**

“very practical, learned a lot” – **NATREF (TOTAL)**

“the most informative refractory course I have attended” – **In-house course at BAPCO (Bahrain)**

“Excellent course, should be attended by all supervisors, very good” – **In-house course at ADGAS – UAE**

“A must for inspection departments” – **DOLPHIN ENERGY**

“Very informative – good overall content in a specialist field” - **Dolphin Energy – Dubai Course**

“Well balanced course” – **BP Oil – Australia**

“Excellent course, clarifying many aspects of refractory theory and practise. Interesting to have a global perspective of the Refractory World.” – **In-house course at Chevron**

PROGRAMME

DAY 1 – REFRESHER – 30TH AUGUST 2015

Registration / Tea & Coffee

- WELCOME
- Introduction to Refractories:
 - Raw Materials
 - Castables
 - Bricks & Mortar
 - Refractory Installations

DAY 2 – 31ST AUGUST 2015

- WORLD INDUSTRY OVERVIEW
- BASIC CONCEPTS
- SPECIFIC RAW MATERIALS FOR REFRACTORIES IN HPI & PETROCHEM
- TESTING & CONCEPTS
- INSTALLATION – SKILLS & EQUIPMENT
- CASTABLES : ASPECTS OF CONSISTENCY & QUALITY

SUN SET BOAT CRUISE IN ABU DHABI MARINA

DAY 3 – 1ST September 2015

- REFRACTORY ANCHORS
- HEAT TRANSFER THROUGH REFRACTORY LININGS, THERMAL CONDUCTIVITY CALCULATIONS AND REVIEW OF INFRA-RED SCANS
- DRY-OUTS AND COMMISSIONING OF LININGS
- WHY REFRACTORIES FAIL?
 - TEMPERATURE
 - THERMAL SHOCK
 - EROSION / ABRASION
 - ATMOSPHERE
- MOVIES ON REFRACTORY INSTALLATION TECHNIQUES

Day 4 – 2nd September 2015

- REFRACTORY SPECIFICATIONS FOR HPI & PETROCHEMICAL PLANTS
- OVERVIEW OF REFINERY & PETROCHEMICAL EQUIPMENT
- REFRACTORY INSPECTION
 - THEORETICAL
 - PRACTICAL
- CRITERIA FOR REPAIRS
 - THEORETICAL
 - PRACTICAL (incl. unplanned repairs & problem solving)
- NEW TECHNOLOGY & TRENDS

DAY 5 - Practical Demonstrations – 03/09/2015

Sponsored by Cape & Calderys

Demonstrations will be held at Cape Yard. Transportation will be provided.

INSTALLATION TECHNIQUES AND MATERIALS

- Gunning
- Ramming
- Castables with poker vibrator, self-flows etc.

BRICK LAYING

- Mortaring and bricklaying bonds
- Good and Bad Techniques

The necessary PPE will be provided for delegates.

CLOSING FUNCTION AND HANDING OUT OF CERTIFICATES

EASY WAYS TO REGISTER

1. **By fax**
International + 27 16 971 2678
2. **By e-mail**
charinechb@gmail.com / dcbiggs@mweb.co.za
Att: Mrs Charine Biggs

Queries can be directed to:

Mr Darrol Biggs – dcbiggs@mweb.co.za

Phone: International + 27 83 2758948

REGISTRATION FORM

Full Names (for certificate purposes)	
I.D. / Passport No.	
Company	
Designation	
Company Postal Address	
Tel. No.	
Fax No.	
Cell. No.	
E-mail address	
Company V.A.T No:	
Order No:	

PAYMENT INFORMATION

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

Registration Fee: tick
- Five day course - Theory and Practical \$ 2 650.00

Prices are in USD

Attend Sun Set Cruise in Abu Dhabi Marina at no cost? **yes** **no**

Note:

- On receipts of registration form, confirmation will be send with payment details and further instructions for the course and venue.
- Fees include hard copy of slides with place for notes and copy of Practical Refractories book. Soft copy of course presentations will not be available.
- Course fees includes; course material, lunch and coffee/tea at breaks.
- The Course is limited to only the first 30 delegates.
- Accommodation costs are not included in the course fee. However, on request special corporate rates are available at the Le Royal Meridien.

Sponsors - Materials & Equipment

Petroman Petroleum Consultants
(CHB sponsor in UAE)



Calderys - Dubai
(Material Sponsor & Technical Solutions)



Cape PLC – Abu Dhabi
(Practical Venue, Equipment & Skills)