

Spontaneous Combustion Re-visited

Causes and Effect, Detection and Solution in Production, Storage and Transport

*Third Conference on Spontaneous Combustion for Industrial Purposes
in Southern Africa*

Presented by
Fossil Fuel Foundation of Africa

Thursday 5th August 2010

Glen Hove Conference Centre, Glenhove Road, Melrose, Johannesburg

INTRODUCTION

The self heating of coal has been an issue for producers, users and transporters of coal worldwide for many centuries. Much research has been undertaken to understand the phenomenon and develop methods whereby coals can be tested for their liability to self heat as well as methods to prevent, stop or at least reduce the effects. However, the effects of self heating in all sectors of the coal industry continue and, as such, the *phenomenon takes a significant toll in revenue* through the consequence of poorer grades of coal or coal that has been rendered useless or even, at times damage to health and even death.

OBJECTIVES

The previous two spontaneous combustion conferences run by the Fossil Fuel Foundation have concentrated on the self heating of within mines, i.e. combustion of coal seam faces, pillars or seams in shallow ground under soil. This event will

- review the *causes of self heating*
- illustrate *the effects of self heating during and after the coal has been mined*
- summarise *current methods of liability assessment* for self heating
- demonstrate *new and better methods of detection using newly developed technologies* and
- prove that *prevention through identification will led to the possibility of complete cessation* of this costly and wasteful phenomenon in future
- financial implications and environmental benefits

INTERNATIONAL SPEAKER

Chris Pick from LAND Instruments International – specialists in the design and manufacture of monitors and analysers for industrial infrared temperature measurement, combustion efficiency and coal fire detection systems.

PROGRAMME OUTLINE*

07:00 - 08:00	Registration, tea & coffee
08:00 - 08:30	Causes of spontaneous combustion
TESTING FROM SELF HEATING	
08:30 - 09:00	Lab scale analyses of self heating through oxidation test
09:00 - 09:30	Wits EHAC self heating analyses
09:00 - 10:00	Self combustion pilot scale test at Richards Bay Coal Terminal
10:00 - 10:30	Tea & Coffee Break
ENVIRONMENTS OF SELF HEATING	
10:30 - 11:00	Self heating and coal mine fires
11:00 - 11:30	Fine coal and explosibility
11:30 - 12:00	Self heating in stockpiles and protocols to prevent this
12:00 - 12:30	Self heating in beneficiation plant
12:30 - 13:00	Ports, prevention and handling procedures – the Maputo scenario
13:00 – 13:30	Transportation at sea and self heating scenarios
13:30 – 14:30	Finger Lunch
DETECTION	
14:00 – 15:00	International Speaker – New portable methods to ensure early detection of self heating
15:00 – 15:30	CFD modeling of the heat and mass transfer phenomena in coal dumps
15:30 – 16:00	Generating income from prevention – carbon credits Closure & Networking Drinks

** This programme is subject to change by the organising committee and FFF*

WHO SHOULD ATTEND

All those involved in the coal value chain from exploration through exploitation to use, handling, transport and storage

- Mining, beneficiation and marketing personnel
- All users of coal
- Environmentalists
- Transport personnel – road, rail and shipping
- Engineering manufacturers
- Government agencies
- Project managers
- Academics, researchers and consultants

TECHNICAL PROGRAMME COMMITTEE

Mr Mike Andrews, OEN (Co-Chairman)
Mr Johan de Korte, CSIR (Co-Chairman)
Professor Rosemary Falcon, Wits
Mr Gerrit Lok, SA Coal Processing Society
Professor Nikki Wagner, Wits
Mr Dick Kruger, Chamber of Mines/FFF
Johan Beukes, Coaltech

PRESENTATIONS

All presentation will be in English. Power Point presentations will be used. A CD will be produced of all presentations at the end of the conference.

ACCOMMODATION

Accommodation in the form of hotels or bed and breakfast in the vicinity can be obtained from the Conference Secretariat.

EXHIBITIONS

An exhibition will take place alongside the conference. Interested parties should please contact the Conference Secretariat: Robbie Cameron, Tel + 27 11 728 8173; Fax +27 11 728 1675; Email: robbie@rca.co.za or techevents@mweb.co.za

SPONSORSHIPS

Several exciting sponsorship opportunities are available to industry members. Sponsorship packages are available as well as sponsorship on specific items. All sponsors will be offered branding promotion whether this is inclusion of your logo on the sponsored item or as banner displays in the dining hall or venue. Contact the Conference Secretariat for further details.

CONFERENCE SECRETARIAT

Robbie Cameron - FFF Technical Events

Tel: + 27 11 728 8173/4511

Fax: + 27 11 728 1675/086 653 7108

Email: robbie@rca.co.za or techevents@mweb.co.za

REGISTRATION TERMS AND CONDITIONS

Please note: if your registration fees have not been paid by your company by 30 July 2010, you will be personally liable for the full amount which must then be paid by 4 August 2010. Attendance is STRICTLY subject to prior payment.

An invoice will be issued on receipt of a completed registration form. Please forward a deposit slip or transfer form with the invoice number as a reference is required as proof of payment.

Please fax the registration form to +27 11 728 1675 or email to robbie@rca.co.za or register@rca.co.za

CANCELLATION OF THIS REGISTRATION - Cancellation may be made in writing prior to 10 days before the conference; a 25% administration fee will be charged for cancellations made within 10 days of the conference. No refund or credit note will be issued if written cancellation is not received timeously. You will then remain liable for full payment of the invoice. Registrations are transferable.

Spontaneous Combustion – Registration Form

5 August 2010

Title (<i>Prof/Dr/Mr/Mrs/Ms</i>)					
Surname					
First Name					
Company or Organisation (<i>to be invoiced</i>)					
Company VAT number					
Purchase Order number					
Your position in company					
Postal address (<i>for the invoice</i>)					
Telephone				Mobile	
Email (<i>please print clearly</i>)					
Accounts contact person					
Accounts Telephone number					
Accounts email address					
Cash Bar Networking Drinks	Yes	No	Are you a FFF member?	Yes	No
				Membership No:	
REGISTRATION FEES					
Full Registration fees for the conference include: <i>Delegate folder, name tag, entrance to all sessions, abstract book & programme, CD of presentations, tea/coffee, lunch & excursion (own car)</i>					
FFF / GSSA Member			R 2 750.00 (incl. VAT)		
Non-Member			R3 250.00 (incl. VAT)		
Fully Retired Person/Full time Academic or Student			R 1 800.00 (incl. VAT)		
Presenters / Guests			No Charge		
I wish to join FFF as a member?			R350.00 (incl. VAT)		
			TOTAL COSTS:	R	
I have read and understood the terms and conditions of registration Signed:			Date:		