# ASIA PACIFIC CONCLAVIE

DRY EXTRACTION AND EFFECTIVE UTILIZATION **OF BOTTOM ASH** 

TECHNOLOGICAL ADVANCES IN OTHER COAL COMBUSTION PRODUCTS

and

**EMISSIONS IN THERMAL POWER PLANTS** 

March 17-18,2017

Hotel Pride Plaza, Rajarhat, Kolkata







Organised by: Coal Ash Institute of India

> Co-ordinated by: Corporate Monitor

> > Supported by:

AsianCAA 🤇

Asian Coal Ash Association, China

# Preamble

In all countries and regions the power plants are increasingly operating in a more competitive climate and in a world, short of mineral resources, coal continues to be the fuel of choice and correspondingly by-products from coal combustion are increasing. This, as we all know, is more pertinent to India, where there is an overwhelming dependence on high-ash coal for power generation.

According to the latest report of the Central Electricity Authority, between April and September 2015, 132 thermal power plants (TPPs) of 58 Utility Companies having an installed capacity of 130428 MW consumed 251.69 million tonnes of coal with an average ash content of 33.23%. This led to generation of 83.64 million tonnes of coal ash, out of which only 46.87 million tonnes (or 56.04%) was gainfully utilized.

If we have to bridge the gap between the generation and utilization of coal ash - a task which is imperative from the environmental management perspective – we have to focus on the more effective use of the bottom ash that constitutes tentatively 20% of the total coal ash generated, the balance 80% being the more widely known component fly ash. The extensively prevalent practice of wet extraction of the bottom ash obviously comes in the way of achieving its properties that are required for its gainful use.

The ash handling and engineering companies in recent times have designed and implemented systems by which the bottom ash can be extracted, cooled and conveyed in a dry state. This edition of the Asia-Pacific Conclave has therefore chosen the dry extraction and effective utilization of bottom ash as the primary focus area.

Another important area of environmental management in TPPs is the compliance to stricter regulatory norms particularly for emissions – specially for TPPs to be commissioned after 1 January 2017. It is extremely important to take a stock of the technological options and our preparedness to meet the future regime of flue gas emission norms. The best available technologies which ensure less requirement of water per megawatt of power generated also need to be explored.

Last but not the least is the imperative need of enhanced use of fly ash, as the overall utilization of coal ash in India has been hovering around 56%. Broadly it has been observed that while the generation of coal ash from the TPPs has been increasing in the recent years at the rate of 9-10 million tonnes per year, the rate of growth of ash utilization falls behind to a level of 6-7 million tonnes annually. Hence, there is, on one hand, the accumulation of unused fly ash in ponds and, on the other hand, there is a pressure of increasing generation of coal ash due to growth of coal-based power generation capacity. In order to meet this critical situation, a high degree of innovation and research is called for along with commercialization of new products and technologies.

The Coal Ash Institute of India had embarked on holding the first Asia Pacific Conclave in 2007, which was followed by the second Conclave in 2013 and the present one is the third in the series.

## **About Coal Ash Institute of India**

It is a not-for-profit professional society registered in West Bengal in 1994 for promoting gainful but eco-friendly application, disposal and overall management strategies for coal combustion products and emissions.

Over the last two decades ,apart from the three Asia-Pacific Conclaves, the Institute has organized many other important seminars such as Sino-Indian Initiatives for Coal ash Management, National Seminar on Use of Fly Ash in Agriculture, etc. and also organized expert lectures, extended consulting services to various field problems and published monographs on selected themes.

The Institute brings out a quarterly newsletter and also a journal.

# Specific themes of the Conclave

- 1. Different commercially available dry extraction systems for bottom ash.
- 2. Quality and quality upgradation of bottom ash.
- 3. Multifarious applications of bottom ash.
- 4. Desulfurisation technologies.
- 5. Quality and application of FGD gypsum.
- 6. DeNOx technologies.
- 7. Capture and use of CO2.
- 8. Environmental issues pertaining to mercury in coal combustion.
- 9. High volume fly ash concrete and its commercial applications.
- 10. Feasibility of making zeolite from fly ash
- 11. Ultrafine grinding technologies for fly ash
- 12. Applied research and innovation in coal ash use.
- 13. Partial replacement of fine concrete with process bottom ash

## **Expected participation for the Conclave**

Based on the scope and content of the Conclave, the event would particularly be useful to:

- Operational and managerial professionals of the coal-based TPPs
- Users of fly ash, such as the cement and concrete industry
- Construction industry looking for alternative and green building materials
- Equipment and technology suppliers for dry bottom ash extraction systems
- Technology suppliers for FGD, deNOx, etc.
- Environmental scientists and engineers
- Academicians and researchers in the field of waste recycling and new products development

# ORGANISATIONS/ASSOCIATIONS INVITED FOR PARTICIPATION

Central Electricity Authority

Ministry of Science & Technology, Govt of India

TIFAC, Deptt. of Science & Technology, Govt of India Canada Industries Recycling Coal Ash (CIRCA)

CPRI, Bangalore

IISc, Bangalore

NTPC Ltd.

Dalmia Cement (Bharat) Ltd.

Humboldt Wedag India Pvt Ltd

CESC Ltd.

CSIR-CGCRI, Kolkata

CSIR-IMMT, Bhubaneswar

**NALCO** 

Hindalco- Renukut & Renusagar

Vedanta Ltd

**Ultratech Cements** 

American Coal Ash Association (ACAA)

Ash Development Association of Australia (ADAA)

European Coal Combusion Products Assn (ECOBA)

Japan Coal Association (JCOAL)

Moscow Power Engineering Institute (MPEI)

National Coal Ash Board (NCAB)

Polish CCP Union (UPS)

South African Coal Ash Association (SACA)

UK Quality Ash Association (UKQAA)

Asian Coal Ash Association, China

**SRM** University

State Power Dev. Corporations

ACC Ltd

La Farge Cement

## **Organizing Committee for Asia Pacific Conclave 2017**

Dr. Anjan Kr. Chatterjee, Chief Advisor

- 1. Shri Dilip Kumar Sett, CAII as Chairman
- 2. Shri Debashish Bhattacharyya, CAII as Convenor
- 3. Shri Shyamol Roy, CAII
- 4. Shri P.R. Dutta Roy, CAII
- 5. Shri S.Guha Roy, CAII
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- 1. Dr. Saikat Maitra, Govt. College of Engineering & Ceramic Technology as Chairman
- 2. Prof. Arun Chakraborty, Deptt. Of Civil Engineering, IIEST, Shibpur
- 3. Dr Swapan Das, CAII
- 4. Shri Surojit Basu, FABMAFED
- 5. Prof. Mainak Ghosal, CAII as Convenor

#### **PARTICIPATION DETAILS:**

#### Registration/Delegate Fees:

For General Delegates : Rs 3000
For the R & D Organisations & Educational Institutes : Rs 2500
For Foreign Delegates : USD 200

Registration fees include copy of Conclave Souvenir Volume, tea/coffee, lunch and delgate kit

## **Sponsorship:**

### The details regarding various categories of sponsorships are given below:

Platinum Sponsorship : Rs 5,00,000 (8 complimentary delegates)
Gold Sponsorship : Rs 3,00,000 (6 complimentary delegates)
Silver Sponsorship : Rs 1,50,000 (4 complimentary delegates)
Bronze Sponsorship : Rs 50,000 (3 complimentary delegates)

All the above sponsorships include at most 8 complimentary delegates and a full page colour advertisement in the Conclave Souvenir Volume apart from publicity at venue.

# Other sponsorship options:

Sponsorship of Conclave Lunch : Rs 2,00,000 on day-1 and Rs 1,80,000 on day-2

Sponsorship of Conclave Kit: Rs 1,00,000Sponsorship of Conclave Volume: Rs 60,000Sponsorship of Inaugural Tea: Rs 50,000Display Panel Boards (5' X 3'): Rs 20,000

# Participation in the Conclave Volume:

Rs 20,000 for colour pages Rs 10,000 for black & white pages

Print Area: A4 sized paper (210X297mm) with a printing area of 150X240 mm

Payments: All payments to be made by A/c payee cheque/DD on Kolkata favouring

"COAL ASH INSTITUTE OF INDIA" and sent to:

Address: C/o, Corbis Solutions Pvt Ltd, 179/2, Bangur Avenue, Block -C, Kolkata 700055

Telephone: 98303 20511/9836374947/9830507055

E-mail: corporatemonitor@hotmail.com, info@coalashinstitute.com

Bank Transfer Details: United Bank of India, High Court Branch, Kolkata

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