



FLY ASH UTILISATION Interactive Workshop

- Mumbai, 11 July 2014
- Chennai, 14 July 2014
- Kolkata, 16 July 2014
- New Delhi, 18 July 2014

An Initiative By



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Key Issues of Discussion

- Advanced Flyash Utilization Technologies
- Policy Bottlenecks and Pollution Control Norms Updated
- New Developments in Products & Machinery
- Project Funding
- Future Needs for Handling Materials Flows and Stocks
- Back Filling and Mine Landfill Aftercare
- Unlocking the Potentials of Fly Ash

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Introduction

A one day workshop on Fly Ash Utilization – promoting utilization of flyash in four different locations viz, Mumbai, Chennai, Kolkata & Delhi is organized by Mission Energy Foundation in association with Fly Ash Association of India.

The work shop aims at catering awareness among the entrepreneurs, producers, solution providers about the fly ash utilization technologies and the final products. The objective of the workshop is to bring together different stakeholders involved on a common platform to discuss challenges and solutions. Nearly 75% of India's total power generation capacity is thermal, of which coal based power generation is nearly 90% and diesel, wind, gas and steam adding to about 10%. High ash content in the range of 30 to 50% in Indian coal is the major cause for large voluminous quantities of coal ash. India's dependence on coal as a major source of energy had been of prime importance in the past and shall continue in this millennium, and therefore fly ash management would remain an important area of national concern.

Due to increasing environmental concern and growing magnitude of the problem it has become imperative to manage fly ash. More importantly because fly ash has tremendous potential to be utilized. Keeping in view this versatility of fly ash, several Government and NGOs are involved in fly ash utilization and safe disposal efforts in the country.

Types of Coal Ash

Coal ash is the residue of the coal combustion process involved in the thermal power plants. The types of coal ash from coal based thermal power plants are :

(i) **Fly Ash**

- Collected from different rows of electrostatic precipitator

(ii) **Bottom Ash**

- Collected at the bottom of boiler furnace

(iii) **Pond Ash**

- Mixture of bottom ash and fly ash as available in ash disposal ponds.

Of the total fly ash generated from the thermal power plants nearly 20% is the bottom ash and nearly 80% is the fly ash. Bottom ash and fly ash are sluiced together with water as ash slurry to the ash ponds.

Fly Ash Bottom Ash



Pond Ash



Properties of Fly Ash

Fly ash as a material is siliceous or aluminous with pozzolanic properties. It is refractory and alkaline in nature, having fineness in the range of 3000-6000 sq.cm./gm. The fine particles of fly ash by virtue of their lightness become air borne.

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Areas of Fly Ash Utilisation

Fly ash can be used for multifarious applications. Some of the major areas of fly ash utilization are as follow:

FLY ASH BRICKS

- Durable
- Low water absorption
- Less consumption of mortar
- Economical and eco-friendly.
- Low energy consumption
- No emission of green house gases.
- CELLULAR LIGHT WEIGHT CONCRETE
- Light in weight (density ranges from 400-1600 kg/m³)
- Better insulation
- Fire resistant, better acoustic behavior
- Better workability.

FLY ASH CEMENT

- ROADS, FILLS & EMBANKMENTS
- Light in weight than earth.
- Advantageous in weak/clayey sub-soil
- Lower transportation cost than earth
- Faster rate of consolidation.
- Better compaction characteristics
- High permeability.
- Cost effective & eco-friendly

RECLAMATION OF WASTE LAND

- Improves permeability status of soil.
- Improves fertility status of soil
- Enhances root proliferation
- Improves soil texture
- Reduces bulk density of soil
- Improves water holding capacity
- Optimizes pH value
- Improve soil erosion
- Reduces crust formation
- Provides micro nutrients - Fe, Zn, Cu, Mo, B, etc.
- Provides macro nutrients - K, P, Ca, etc

FLY ASH BASED COMPONENTS FOR CONSTRUCTION INDUSTRY

- Cost effective & eco-friendly
- PAVEMENT BLOCK
- Durable
- Economic
- Faster & easy construction

- Self interactive
- Aesthetic

SINTERED AGGREGATE

- Substitute for clinker & natural aggregates

WOOD SUBSTITUTE - DOORS & PANELS

- 100% wood free
- 5-7 times stronger than wood
- Resistant to weather, termite, fungus & fire

GRANITE SUBSTITUTE

- Good finish
- Properties comparable to natural granite

CERAMIC TILES

- Less water absorption & firing shrinkage
- Less energy intensive

PAINTS & ENAMELS

- Less oil absorption
- Corrosion & abrasion resistant
- Durable

RECLAMATION OF ASH PONDS FOR HUMAN SETTLEMENT

- Friendly to flora & fauna
- Abandoned ash ponds can support buildings.
- No settlement
- No significant radioactivity
- Economic use of ash filled land.



Glimpses

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Why you cannot miss this Workshop?

It is a opportunity to have the first hand experience and to listen to the practical tools and tips that can be applied to optimize fly ash utilization and management. Certificate of participation would be provided from Mission Energy Foundation in association with Fly Ash Association for India.

Participant Profile

- Regulators, policy makers, mine planners
- Policy makers, Senior Executives of Steel, Power, Cement and mining
- Companies and producers
- Industries bodies and Business Chambers, research institutes, academia
- Mining engineers
- Environmentalists working on Fly ash issues
- Technocrats and managers of power & mining sectors
- Logistic companies, suppliers and all those engaged in the business of fly ash
- Generation/Handling
- Fly ash by product producers
- Construction and real estate companies
- Scientists and Faculty

Topics of the Workshop

- Session 1: Flyash Utilisation - Policy and Regulation
Session2: Road construction & Building construction
Session 3: Land filling & Mine filing
Session 4: Agriculture & Other developments
Session 5: Environment and social concern

Underachievements

Fly Ash	FY11	FY12	FY13
Production	131.09	145.42	163.56
Utilisation	73.13	85.05	100.37
% Utilisation	55.79	58.48	61.37

Source: Central Electricity Authority (CEA)

Mode of Fly Ash Utilisation

(%Age Of Ash Utilisation)



	FY11	FY12	FY13
Cement	48.50	44.77	41.18
Reclamation in low lying areas	12.73	16.71	11.78
Roads & embankments	11.65	6.51	6.00
Mine filling	8.26	9.10	10.30
Bricks & tiles	6.30	6.86	9.94
Agriculture	1.74	1.03	2.49
Others	10.82	7.38	6.39
Concrete	NA	0.74	1.03
Ash dyke raising	NA	6.89	10.89

Source: Central Electricity Authority (CEA)

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Past Participants

Acid Chem Corporation Ltd	JK Lakshmi Cement	Talwandi Sabo Power
Adani Group	Jubilant Life Sciences	TATA Chemicals
Abhijeet Group	Kalpataru Power	Tata Consultancy
Ash Improvement Technology Inc.	KfW-German Development Bank	Durgapur Projects
Ashtech India	KJS Concrete	Times Group
Bajaj Hindustan Limited	Lafarge	UltraTech Cement
Beijing Huanengda	LPGCL	UM Power
BALCO	Lanco Group	Universal Crescent Power
BNVNL	Larsen & Toubro Limited	Usha Building Material
Binani Cement	Lytag	UPRVUNL
BLA Industries	Macawber Beekay	Vasavadatta Cement
Capital Blocks and Pavers	Madras High Court	Vedanta Resources
Tata Group	Malabar Cements	Visaka Industries
Deccan Cements	Mangalam Cement	VSR Minerals
Deeaa Group	Masa Concrete	Walchandnagar Industries
DES (Govt. of India)	Mecgale Pneumatics	Wonder Cement
DST (Govt. of India)	Meghmani Finechem	
Design & Development India	Metso Minerals	
Design Spheres	Ministry of Environment & Forest	
Devesh Bhatt & Co	Ministry of Environment & Forests	
DOMEX	Ministry of Coal	
Ecologic Building Systems	Ministry of Power	
EMCO Energy	Ministry of Road Transport & Highways	
Engineers Enterprises	Ministry of Shipping	
FLSmith	Moserbaer Projects	
GE - India Technology Centre	Nabha Power	
GlaxoSmith	NALCO	
Kline	Nav Bharat Ventures	
GMR Group	Neptune Industries	
GNFC Limited	NTPC	
GETRI	OCL India	
Gujarat Fluorochemicals	OPGCL	
GIPCL	Paradeep Phosphates	
GNFCL	Planning Commission	
GSECL	Raj Westpower	
Gupta Vecor	Reliance Cement	
HESS	Reliance Infrastructure	
High Flyash Cluster	Rosa Power	
HIL Limited	Rubrans Commercial	
Hindalco	Sahjananda Flyash	
Hira Ferro Alloys	Shrivali Conmat	
Hi-Tech Flyash	SCCL	
HUDCO	Strata Geosystems	
Inderjit Power	Sumitomo Corporation	
J K Cement		
Jayaswal NECO		
Jayem Manufacturing		
JSPL		
JPL		

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Sponsorship Opportunity



Our aim is to deliver you an event that exceeds your expectations, thus becoming an integrated part of your annual marketing program.

Sponsoring this **FlyAsh Utilisation Interactive Workshop** will make your company stand out as a leader in this burgeoning industry and will leave a strong impression of your brand in key decision makers minds. Sponsors have an incredible amount of presence and it will not only give your company optimum exposure but also the opportunity for delegates to meet you and your executives to find out more about your role and business opportunities in the sector.

- Gain **PUBLICITY** with our advertising and promotional campaigns
- Obtain **DIRECT ACCESS** to potential clients during and after with our meticulously prepared confidential delegate list
- Receive a **KEY SPEAKING POSITION** to address an audience of top executives and decision makers from the industry
- Create **PERMANENT REMINDERS** of your product or services in conference documentation
- Profile yourself as **INDUSTRIAL LEADER**, as your corporate logo and profile will be featured prominently in event marketing collaterals
- **NETWORKING** with the industries leading Government Officials, Senior Level Delegates and Experts
- Achieve **GREATER EXPOSURE** and **BRAND BUILDING** through our partners and much more

We have a variety of packages to suit your needs. For more information and full details please contact: Mr. Sidney K at sidney@missionenergy.org / +91 9819674218

SPONSORSHIP INFORMATION

FLYASH UTILISATION WORKSHOP

Registration Form

I Would Like to Attend at:

- ☐ Mumbai, 11 July 2014
- ☐ Chennai, 14 July 2014
- ☐ Kolkata, 16 July 2014
- ☐ New Delhi, 18 July 2014

Fees

9500/-
+ Applicable Govt. Taxes

DELEGATE DETAILS

Total Amount (in Rupees): _____

Transaction Reference: _____ Bank Name: _____ Date: _____

Company : _____

Address : _____

City: _____ Pincode: _____ State: _____

Delegate (1): _____ Job Title: _____

Tel: _____ Mobile: _____ Fax: _____

Email: _____ Alt Email: _____

Delegate (2): _____ Job Title: _____

Tel: _____ Mobile: _____ Fax: _____

Email: _____ Alt Email: _____

Delegate (3): _____ Job Title: _____

Tel: _____ Mobile: _____ Fax: _____

Email: _____ Alt Email: _____

(For more than 3 delegates kindly make copies of the registration form)

Please indicate if you have already registered by Phone ☐ Fax ☐ Email ☐ Web ☐

Please note: If you have not received an acknowledgment before the conference, please call us to confirm your booking.

Payment Terms

Payment is required within 10 working days on receipt of invoice. If a booking is received 10 working days before the conference a credit card number will be taken to confirm your place, likewise if full payment has not been received before the conference date.

NOTE:

- Kindly fill the registration form completely
- Kindly provide with a valid email id for correspondence
- A confirmation of the registration will be sent via email after receipt of the payment
- No refund will be made in case of no-show / no-attendance
- Registration fee is exclusive of service tax as applicable
- Registration fee include lunch, refreshment and conference document/material at the venue.
- It does not include cost of accommodation and travel

Cancellation Policy:

Should a delegate be unable to attend, a substitute delegate from the company is always welcome at no extra charge. Alternatively, for any cancellations, the following rules shall apply

- 70% refund of registration fee if cancellation is done on or before 20 working days of the schedule
- 50% refund of registration fee if cancellation is done on or before 15 working days of the schedule
- Thereafter, no refunds can be made

Important note:

Please quote the name of the participant and event title on the advice when remitting payment. Bank charges to be deducted from the participation organisation's own accounts. Attendance will only be permitted upon receipt of full payment. It may be necessary for reasons beyond the control of the organiser to alter the content or the event date or location or the identity of the speaker/s.

Way to Register

Phone: 022 65220770/71

Fax: 022 28103842

Post: 003, B-16, Sector 1
Shanti Nagar, Mira Road (East)
Thane, Maharashtra – 401107

Online: <http://flyashworkshop.missionenergy.org>

Email: help@missionenergy.org

Group Discount

Mission Energy Foundation recognises the value of learning in terms. Group bookings at the same time from the same company receive discount:

>3 Delegates	5%
>7 Delegates	10%

This offer is exclusive of the early bird discount. Call us for a special discount rate for terms of 10 and above (Not applicable to clinic(s) only bookings).

Payment Methods

By Check/Bank Draft :

All instruments to in favor of
“**Mission Energy Foundation**” (payable at Mumbai)
and sent to, Mission Energy Foundation
003, B-16, Sector 1, Shanti Nagar, Mira Road (East)
Thane, Maharashtra 401107 | +91 22 65220770 / 71

By Direct Transfer :

Bank Name: Kotak Mahindra Bank
Account Name: Mission Energy Foundation
Account Number: 0111221660
Account Type: Current Account
Branch Name: Mira Road (East)
Branch Address: E-Wing, Latif Park,
Mira Bhayandar Road,
Mira Road (E), Thane - 401107
Branch Telephone: +91 22 28120740 / 48 / 49
MIRC Code: 400485051
IFSC / RTGS: KKBK0000649
SWIFT Code: KKBKINBB

All bank charges to be borne by payer. Please ensure that our bank receives the full invoiced amount.

Date & Venue

Country Inn & Suites

Plot No X- 4/5 - B, TTC Industrial Area, MIDC,
Mahape, Shilphata Road, Navi Mumbai -400701.
Tel: 022-61594000
<http://www.countryinns.com/navi-mumbai-hotel-in-400701/indnmb/area/map>

Radisson Blue

No: 531, GST Road, St. Thomasmount, Chennai - 16. Tel: 044-22310101
<http://www.radissonblue.com/hotel-chennai/location>

Park Plaza

17 Garcha 1st Lane, Kolkata - 700019. Tel: 033-40409999
<http://www.parkplaza.com/kolkata-hotel-wb-700019/indppkb/area/map>

Radisson Blue

Plot Number 4, Sector - 13, Dwarka, New Delhi - 110075. Tel: 011-30908000
<http://www.clubcarlson.com/meetingmap.do?hotelCode=INDDELHI&directions=true>