



# Engineering Staff College of India

Autonomous Organ of The Institution of Engineers (India)

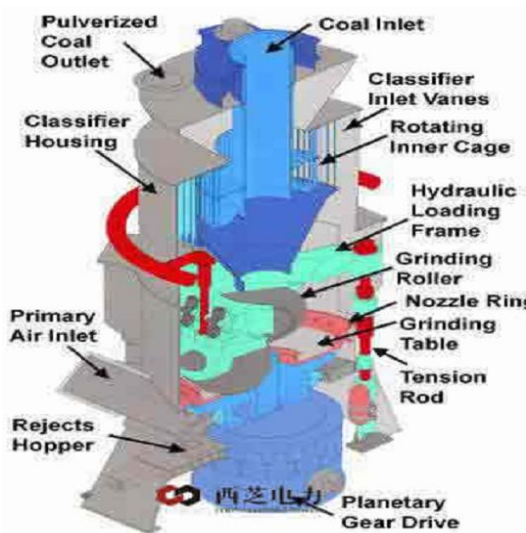
Old Bombay Road, Gachi Bowli, Hyderabad – 500 032. TS, India



## POWER & ENERGY DIVISION

### *Continuing Professional Development Programme on* **Best Practices in O&M of Coal Pulverisers and Imported Coal Blending and Coal Firing Optimisation**

05 – 07 November, 2019



(An ISO 9001:2015 Certified, AICTE & CEA Recognized Institution)

**Centre for Promotion of Professional Excellence**

## **INTRODUCTION**

The all India installed capacity of Power Plants as on 2<sup>nd</sup> July 2019 is 360 GW out of which coal based thermal power plant constitutes 202 GW which is 56% of the total capacity. With the advent of Renewable Energy whose capacity is 80 GW (22% country's installed capacity), there is an increased focus on thermal power plants which while continuing as base load station needs to run at lower PLF, yet required to optimize its fuel cost.

Coal Pulveriser constitutes an important function in the boiler operation. A coal pulverizer is used to pulverise coal pieces into fine particles, before it is sent into the boiler to ensure efficient combustion. The coal so pulverized is in the form of a dust and is as fine as face talcum powder.

An efficient pulveriser brings down the heat rate of the power plant. Boiler controllable losses are interrelated with pulveriser performance and therefore, O&M Engineer's attention on pulveriser is critical to optimize the boiler combustion air & fuel inputs. Thus, optimizing of boiler performance starts at the pulveriser. The first part of this programme focuses on the Best Practices in O&M of Coal Pulverising mill.

Secondly, the inability of indigenous coal mines in our country to meet the coal requirements of power plants is forcing the country to go for coal imports. Since, the coal qualities of indigenous & imported sources are much different, and the boiler, in many cases, are designed for standard Indian coal, blending without proper compatibility can have an adverse impact on boiler performance and also it's residual life. Thus the second part of this programme takes the participants through impact of coal characteristic, methods of coal blending, optimization of coal firing and its operational issues and experience.

## **OBJECTIVE**

To sensitize the participants regarding best O&M practices of a pulveriser and issues of coal blending in thermal power stations include and optimization of coal firing.

## **COURSE COVERAGE**

- Coal characteristics, fineness, combustion
- Effect of coal characteristics on mill capacity
- Types of mills, design & constructional features, mills for supercritical technology
- Factors affecting mill performance, wear life improvement
- Dynamic classifiers, mill performance and optimization
- Mill operation
- Mill maintenance aspects, condition monitoring
- Importance of coal blending
- Coal Blending Methodologies like Blending of beds in yards & through reclaimers etc.
- Infrastructure requirements for coal blending
- Impact of coal characteristics in boiler design etc. for coal blending
- Effect of ash analysis on coal blending
- Operational expenses in coal blending methods

## **METHODOLOGY**

The programme will be conducted in an interactive environment providing greater scope for discussions. Emphasis will be on a highly participative style of learning.

The classrooms are provided with latest audio – visual teaching aids. The ambience in the campus and classrooms facilitate in effective learning by participants.

### **FACULTY**

Apart from Core Internal Faculty, Consulting Firms, Reputed Manufacturing Organisations, Government Academic and Research Institutions etc. will share the sessions.

### **TARGET PARTICIPANTS**

Operation and Maintenance Engineers/Supervisors, Executives of Thermal Power Stations run by NTPC, State Electricity Boards, State Power Generation Corporations, Private Power Companies, Industries with captive power plants etc. Also those who are involved either with coal procurement, coal supply, coal utilization or coal handling, boiler operation etc.

### **PROGRAMME VENUE, DATES & TIMINGS**

Engineering Staff College of India (ESCI) Campus, Old Bombay Road, Gachi Bowli, Hyderabad - 500032, Telangana, India.

### **DATES**

**05 – 07 November, 2019**

### **TIMINGS**

On the first day registration will commence at 0900 Hrs. On all other days the programme timings will be from 0945 to 1715 hrs with breaks in between for tea and lunch.

### **ACCOMMODATION**

Participants will be accommodated in our Executive Hostel located within ESCI Campus. The accommodation will be on twin sharing basis.

### **COURSE DIRECTOR**

**A Chandra Mohana Rao**

Head & Sr. Faculty - Power & Energy Division, ESCI

### **COURSE FEE**

**Residential Fee** is Rs.15,000/- per participant. Fee includes Course Material, Course Kit, and Twin-sharing / Single AC accommodation as per availability, Breakfast, Lunch, Dinner, Tea / Coffee and Snacks.

### **DISCOUNTS**

**Non-Residential Fee:** 10% discount on course fee is allowed for non-residential participants.

**Group Discount:** 10% discount for three or more participants if sponsored by the same organization.

**(All discounts are applicable only if fee is received at ESCI a week before the commencement of the programme).**

**GST @18% (as applicable) is to be paid extra over and above the training fee. ESCI's Provisional ID No. 36AAATT3439Q1ZV, PAN Card No. AAATT3439Q.**

The course fee is to be paid in favour of “**IE (I) – ENGINEERING STAFF COLLEGE OF INDIA**” in the form of demand draft payable at Hyderabad at par cheques payable at any Bank Branches.

Alternatively the payment may be made by **Electronic Fund Transfer (EFT) to ESCI – SB A/c No. 33705165550** with The SBI, Manikonda Branch, Gachi Bowli, Hyderabad – 500 032 by **NEFT / RTGS / IFSC Code No: SBIN0011076 – MICR No: 500002107**. While using EFT method of payment, please ensure to communicate us your company name, ESCI invoice reference and programme title.

Online registration is available on ESCI website. To register, manually please send your nominations (**10 days prior to date of commencement of the programme**) giving details of name, designation, contact address, email address, mobile number, telephone and fax number of the participant along with the details of mode of payment of fee, addressed to:

### **Head, Power & Energy Division**

Engineering Staff College of India

Gachi Bowli, Hyderabad – 500 032

Phone: 040 – 6630 4170 to 4177; 040-6630 4100, Fax: 040 – 23000336, 66304103

Email:pe.esci@gmail.com / pe@escihyd.org; Website: www.escihyd.org

**CERTIFICATE:** A certificate of participation will be awarded to each participant on conclusion of the programme.

### **GENERAL INSTRUCTIONS**

- ESCI encourages participants to present case studies from their respective organizations.
- For the convenience of the outstation participants ESCI will facilitate pickup and drop from Airport / Railway Station / Bus Stations, if travel plans are received at least 3 days in advance along with mobile number by fax or email. The charges shall be paid by the participants directly to the cab driver.
- ESCI provides complimentary accommodation to participants a day prior to the commencement and after the conclusion of the programme. (Check in at 12:00 hrs a day prior to the commencement & check out at 12:00 hrs a day after completion of the programme)
- Overstay charges of @ Rs.990/- per day / per head including hospitality (Bed Tea/ Coffee to Dinner) will be charged.
- Well developed Information Centre and Internet facilities are available to the participants free of cost.