



Programme on

Emission Control Technology for Coal-based Power Sector to meet New Environmental Norms

September 5-8, 2017

Singrauli Palace Heritage Hotel, Waidhan, Singrauli, Madhya Pradesh

DAY 1: September 5, 2017

09.30 – 10.00 AM	Registration
10.00 – 10.15 AM	Welcome Address Priyavrat Bhati, <i>Programme Director</i> , Centre for Science and Environment
10.15 – 11.15 AM	Overview of Emissions, Pollution Control and New Regulations Rohit Pathania, <i>Programme Manager</i> , Centre for Science and Environment
11:15 – 11.30 AM	Q&A session
-----11.30 AM – 12.00 Noon: Tea break-----	
12.00 – 01.00 PM	Group Presentations on Emissions Scenario in India Moderator: Mr. Ashu Gupta , <i>Retd. General Manager (Chemistry and Environment)</i> , NTPC Ltd. <ul style="list-style-type: none">• Range of PM, SO₂ and NO_x emissions of power plants (across ages and sizes)• Overall compliance status–plants meeting PM and NO_x standards.• Broad factors influencing pollution control performance of power plants• Challenges with emissions control in India–current and likely in future
-----1.00 PM – 2.00 PM: Lunch-----	
02.00 – 02.30 PM	Discussion Session – Indian experience with ESP operations Moderator: Mr. Ashu Gupta , <i>Retd. General Manager (Chemistry and Environment)</i> , NTPC Ltd. <ul style="list-style-type: none">• Data quality – Stack emissions – manual checks Vs. CEMS data• PM emissions levels from existing units (for various vintages)• Suggested improvements to meet tighter standards
2.30 – 3.15 PM	ESPs and Bag Filters: Technology, Retrofitting Options, Design Sensitivities Sankar Thakur, <i>KC Cottrell India Private Limited</i>
3:15P – 3.30 PM	Q&A session
-----3.30 – 4.00 PM: Tea break-----	
04.00 – 4.45 PM	Inspecting ESPs: Key Parameters, Focus Areas and Corrective Measures Sankar Thakur, <i>KC Cottrell India Private Limited</i>
4:45 – 5.00 PM	Q&A session

DAY 2: September 6, 2017

10.00 – 11.15 AM **FGD Technology: Types, Requirements, Efficiency and Design Sensitivities**
B.Krishnakumar, *General Manager*, ISGEC Heavy Engineering Ltd.

11.15 – 11.30 AM **Q&A session**

..... 11.30 AM – 12.00 PM: Tea break

12.00 – 12.45 PM **FGD Performance Assessment: Efficiency Parameters; Inspection Protocols and System Observations**
Srikanth G, *Vice President*, Aswathi Industries Limited

12:45 PM – 1.00 PM **Q&A session**

..... 01.00 – 02.00 PM: Lunch

02.00 – 02.30 PM **Discussion Session-SO_x Emission levels and Control Measures**
Moderator: Mr. Ashu Gupta, *Retd. General Manager (Chemistry and Environment)*, NTPC Ltd.

- SO₂ emissions levels from existing units (for various sizes)
- Control measures, if any, being employed (coal washing, injection of limestone, etc.)
- Likely challenges in FGD installation – water use, waste management, raw material availability etc.
- Suitable technologies for reaching 600 mg/Nm³ level of SO₂

02.30 – 03.15 PM **System modifications for NO_x control**
Anup Kumar Shukla, *Associate Vice President*, Techfab Systems

03.15 – 3.30 PM **Q&A session**

..... 3.30 PM – 3.45 PM: Tea break

03.45 – 04.30 PM **NO_x Control using SCR/SNCR**
B.Krishnakumar, *General Manager*, ISGEC Heavy Engineering Ltd.

04.30 – 05.00 PM **Discussion Session–NO_x Emission Levels and Control Measures**
Moderator: Mr. Ashu Gupta, *Retd. General Manager (Chemistry and Environment)*, NTPC Ltd.

- NO_x emissions levels from existing power plants
- Existing use of Low NO_x burners in India–experience and challenges
- Distribution among Indian plants (age, size)
- Likely challenges in implementing SCR and SNCR in upcoming plants

DAY 3: September 7, 2017

10.00 AM **Assembly in Hotel Lobby for Site Visit**

10.30 AM **Arrival at NTPC Vindhyachal Power Station**

10.30 – 11.00 AM **Tea with NTPC Staff**

11.00 AM – 12.15 PM **Presentation by NTPC Official about Vindhyachal Power Station and Pollution Control Strategy**

12.15 – 12.45 PM **Q&A Session**

..... 12.45 PM – 2.00 PM: Lunch

2.00 – 5.00 PM **Walk through the plant**

5.00 PM **Return to hotel**

DAY 4: September 8, 2017

10.00 AM – 12.30 PM **Panel discussion: Perspectives of Stakeholders on New Environmental Standards and the Way Forward**
Chair: Mr. Ashu Gupta, *Retd. General Manager (Chemistry and Environment), NTPC Ltd.*

Panelists:

- **Nilima Sao**, *Head-Material Handling & Water System, The Tata Power Company Limited*
- **Mr. Ramkrishna Gadre**, *Chief Project Engineering, The Tata Power Company Limited*
- **Anup Kumar Shukla**, *Techfab Systems*
- *Madhya Pradesh Power Generation Company Ltd.
- *Madhya Pradesh Pollution Control Board

11.15 – 11.30 AM: Tea break

11.30 AM – 12.30 PM **Moving Forward – the Roadmap**

11.30 – 11.45 AM **Chief Guest Address**
Mr. Anurag Chaudhary (IAS), *District Magistrate –Singrauli**

11.45 AM – 12.00 PM **Madhya Pradesh Pollution Control Board Address**
Mr. A A Mishra, *Member Secretary, Madhya Pradesh Pollution Control Board**

12.00 – 12.15 PM **Vote of thanks**

12.15 – 12.45 PM **Certificate distribution by Chief Guest and Organiser**

1.00 – 02.00 PM **Lunch and Group photo**

****to be confirmed***



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