

International Conference

Environmental Issues, Challenges and Innovations for Thermal Power Plants

5th - 6th December 2017

**SCOPE Auditorium, SCOPE Complex
Lodhi Road, New Delhi**



Organised by

in association with



**Central Board of
Irrigation & Power**



**Central Electricity Authority
(Ministry of Power, Govt. of India)**



ANNOUNCEMENT

The Central Board of Irrigation and Power, New Delhi is organizing a Conference on “**Environmental Issues, Challenges and Innovations for Thermal Power Plants**” in association with Central Electricity Authority (CEA), Ministry of Power, Government of India, NTPC Ltd, and BHEL on 5th - 6th December 2017 at SCOPE Auditorium, SCOPE Complex, Lodhi Road, New Delhi.

AIM OF THE CONFERENCE

CBIP has been organizing National/ International conferences on various technical issues related to Power and are very much appreciated by delegates who come from all over India and abroad. CBIP has now taken initiative to organize an International Conference on “**Environmental Issues, Challenges and Innovations for Thermal Power Plants**” on 5-6 December, 2017 with the aim to update the knowledge of professionals about compliance of latest environmental norms relating to thermal power plants and to discuss the various problems related thereto.

Coal is central to India’s energy needs. It contributes around 75 per cent of India’s current electricity generation and, according to NITI Aayog projections, will remain the dominant source of power for the next couple of decades. Coal is abundantly available and provides a reliable and cheap base load power. But the coal-based thermal power industry is responsible for a significant share of emissions of the industrial sector in India and it therefore has an outsized impact on air pollution. Controlling the emissions of this sector will have vast benefits for the environment and on human health.

Identifying the role thermal power is playing in worsening air quality, the Ministry of Environment, Forest and Climate Change notified on December 2015 the revised environmental norms for coal based Thermal Power Plants in the country.

Emission Parameter	TPPs (Units) installed before 31 st December, 2003	TPPs (Units) installed after 31 st December 2003 and upto 31 st December 2016	TPPs (Units) to be commissioned after 1 st January 2017
Particulate Matter	100mg/Nm ³	50 mg/Nm ³	30 mg/Nm ³
Sulphur Dioxide (SO ₂)	600 mg/Nm ³ for units less than 500 MW capacity 200 mg/Nm ³ for units 500 MW and above capacity	600 mg/Nm ³ for units less than 500 MW capacity 200 mg/Nm ³ for units 500 MW and above capacity	100 mg/Nm ³
Oxides of Nitrogen (NOx)	600 mg/Nm ³	300 mg/Nm ³	100 mg/Nm ³

Further, the revised environmental norms issued by MoEF & CC also tightened the norms for water consumption which are given below:

- All plants with Once Through Cooling (OTC) shall install Cooling Tower (CT) and achieve specific water consumption of 3.5 m³/MWh within 2 years of notification.
- All existing CT based plants shall reduce specific water consumption up-to maximum of 3.5 m³/MWh within a period of 2 years of notification.
- New plants to be installed after 1st January 2017 shall have to meet specific water consumption of 2.5 m³/MWh and achieve zero water discharge.

The new standards are aimed at reducing emission of PM10, Sulphur Dioxide and Oxide of Nitrogen, which will, in turn, help in bringing about an improvement in the Ambient Air Quality in and around thermal plants. The technology employed for the control of proposed limit of sulphur dioxide-SO₂ & Nitrogen Oxide-NOx will also help in control of mercury emission as a co-benefit.

Limiting the use of water in thermal power plant will lead to water conservation as thermal power plant is a water- intensive industry. This will also lead to reduction in energy requirement for pumping water.

There are major challenges and issues associated with implementation of new environmental norms, such as :

- Present available technological solutions need to be adopted to suit Indian conditions
- The legal framework has to be adopted according to new technical solutions.
- Retrofit cost and its impact on tariff has to be minimized.
- Time schedules for implementation of new environment norms requires optimum project management.

In order to meet the above challenges, it is necessary to deliberate these issues for control of pollution in Thermal Plants based on international experiences and available technological options for compliance of new Environmental Norms by Thermal Plants.

THE TOPICS OF INTEREST

- Environmental Compliance in Thermal Power Plant- Issues and Challenges relating to Time Frame, Finances, Tariff, maintaining power supply during retrofits, Technological options, lime stone availability, disposal of bi-products.
- Roadmap to meet environment norms in Indian Power sector
- Implementation and Enforcement of Environmental Legislation pertaining to Thermal Power Plants in India - State Generation companies perspectives on technology and financing retrofits
- Technological Parameters in selecting systems to control emissions in Thermal Power plants
- ESP upgradation for meeting new norms
- Development of De-SOx systems-FGD (Fuel Gas Desulfurization) Retrofit – some case studies
- Development of De-NOx systems by combustion optimization, SCR/SNCR systems
- Water conservation in Thermal Power Plants
- Issues for coastal and old power plants and recommendations
- Concerns of captive power plants in adoption of new environment norms
- Air Quality control system and other environmental technologies
- Financial challenges and options in compliance of new environmental norms
- Regulatory issues in implementation of new environmental norms and its impact on tariff

WHO SHOULD ATTEND

Officers of Power Utilities/Corporations, State Govt./SEBs, Nodal Agencies, Energy Planners, Private Entrepreneurs, Manufacturers, Development Consultants, Research/Academic Institutions, Construction Companies and Financial Institutions etc.

CALL FOR PAPERS

All concerned wishing to present paper(s) on one or more of the above-mentioned topics/allied topics are requested to send their proposed paper(s), on A4 size (210 mm x 297 mm) paper, in English to the conference secretariat, before **15th November, 2017**.

Papers should contain:

- A descriptive but brief title
- Name(s) and affiliation(s) of the author(s)
- Address for correspondence (including fax number and E-mail address)
- Detailed information about the contents and conclusions of the paper.

The papers will be reviewed by the Technical Committee of the conference for their suitability for presentation at the conference.

The authors of the papers selected for the conference will be so intimated by **20th November, 2017**. A condition of acceptance of papers is that the author or one of the authors (in case of multiple authors) will attend the conference.

Dates to Remember

Receipt of full-length paper 15th November, 2017

EXPERT LECTURE

Eminent experts both at National and International level are being invited for Keynote/Theme /Special addresses.

REGISTRATION

The registration fee payable by the delegates, for participation in the Conference is as follows:

- (i) Rs. 12,000/- per participant.
- (ii) Discounted Fees of Rs. 10,000/- per participant for members of CBIP

GST @ 18% shall be charged extra

GST No. 07AAAJC0237F1ZU

Registration fee shall cover the registration kit, and Tea/ coffee / lunch during the Conference. Participants will have to make their own arrangement for travel, boarding and lodging, etc.

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The Conference provides an effective opportunity for sponsoring companies to promote their products/services to a focused audience, besides networking with engineers of utility, manufacturers and academic institutions during tea/coffee and lunch intervals. Sponsors are assured of full visibility with printing of their names on proceedings, banners and other publicity material related to Conference and will have the privilege of distribution of their product's pamphlets/catalogues during the Conference. Sponsors will also have the privilege of sending delegates exempted from payment of registration fee as indicated hereunder:

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Note : GST 18% extra on all the payments. No other method of payments is acceptable. Bank charges, if any must be borne by the participants and should not be deducted from the amount remitted to the organizer.

VENUE : SCOPE Auditorium, SCOPE Complex, Lodhi Road, New Delhi

CLIMATE : The maximum temperature at Delhi in December ranges from 15-18°C and minimum temperature from 9-11°C.

CONFERENCE SECRETARIATE

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