CENTRAL BOARD OF IRRIGATION & POWER

with support of Hadek Protective Systems

invites you to the Online Training Program on

HADEK

New Delhi
ISO 9001:2015

INTRODUCTION TO FGD SYSTEM & WORKING OF WET FGD SYSTEM

including New Chimney Design

01-03 February 2022(1500-1630 hours)

Mr. R K ANEJA
Former AGM (O&M), NTPC

Mr. ALBERT DE KREIJ
Hadek Protective Systems BV

Mr. ANDREAS HARLING
Constructure GmbH

Mr. MARKUS ROST
Constructure GmbH

KEY TAKEAWAYS

- Why SOx control & Environmental norms.
- Technology required for up-gradation & Factors considered for tech selection
- Capital Expenditure & Operating Expenditure
- Introduction about Various types of FGD System
- Design basis of a typical limestone based FGD system
- Quality of Gypsum bi-product
- Predicted performance of Wet FGD System of a typical 500 MW unit
- Basic Chemistry of FGD System & Estimated quantity of SO2 liberated
- Factors affecting lime consumption & Wet FGD Process
- Brief introduction of New Chimney Design (NCD) technology and potential advantages
- Necessity of a clear Technical Specification when allowing the use of NCD chimneys
- Key performance areas:- Pressure losses, Lining performance, Stack liquid discharge prevention, Crack width limitation and Seismic behaviour.

Participants to this session will afterwards be provided with the Model Specification, in electronic form

CONTACT US

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OBJECTIVE

In view of the current scenario and with the aim to discuss and give a better understanding to the professionals and engineers about the subject, ***CBIP*** with the support of HADEK Protective Systems is organizing an online training program on **"INTRODUCTION TO FGD SYSTEM & WORKING OF WET FGD SYSTEM including New Chimney Design"** on 01-03 February 2022 (1500-1630hrs).

KEY TAKEAWAYS

- ***Why SOx control?***
- ***Environmental norms & Technology required for up-gradation in plants***
- ***Factors to be considered for technology selection***
- ***Capital Expenditure & Operating Expenditure***
- ***Introduction about Various types of FGD System***
- ***Design basis of a typical limestone based FGD system***
- ***Quality of Gypsum bi-product & Basic Chemistry of FGD System***
- ***Predicted performance of Wet FGD System of a typical 500 MW unit***
- ***Estimated quantity of SO2 liberated & Factors affecting lime consumption.***
- ***Wet FGD Process***
- ***Brief introduction of New Chimney Design (NCD) technology and potential advantages***
- ***Necessity of a clear Technical Specification when allowing the use of NCD chimneys***
- ***Key performance areas:- Pressure losses, Lining performance, Stack liquid discharge prevention, Crack width limitation and Seismic behavior.***

Note:

- *Audio/video recording is prohibited; however the presentations will be shared with participants via e-mail.*
- *Organizers will not be responsible for any quality and interruption of audio/video due to poor internet connectivity at the customer end.*
- *Online training session link will be provided to the participants only. Forwarding the link to other person is strictly prohibited.*
- *The participants must adhere to the time schedule fixed for the training*

KEY SPEAKERS

Mr. Ravinder Kumar Aneja is Former AGM (O&M), NTPC who has a working experience of around 36 years in NTPC. He has worked in Operation division, Energy Efficiency & Management Group in NTPC. He has also conducted APC Audits, Technical Audits and done monthly ORT at various TPS during his posting at NTPC Consultancy.

Mr. Albert de Kreij was born in 1964 in Rotterdam, the Netherlands, and graduated at Erasmus University, with a degree in Business Economics. In 1989, he joined Hadek Protective Systems, which specializes in the internal protection of power plant ductwork and chimneys. During his work with Hadek, he had gathered extensive experience using thin film lining systems and borosilicate glass block linings for ductwork and chimneys. He has been closely involved with a number of technical studies on the use of borosilicate glass block linings. He is also closely involved with the practical aspects of using lining systems in the field. He is the Director of Sales of Hadek Protective Systems.

Mr. Andreas Harling specializes in structural engineering with an emphasis on failure investigations and maintenance activities of antenna masts. His experience includes investigations related to the flaws and failures of a variety of TV-towers, prestressed centrifugally concrete masts and steel masts. His background is based on numerous static calculations, design reviews and assessment of structural behavior of tower structures. He is a state registered expert for antenna mast structures.

Mr. Markus Rost graduated at the Technical University of Dortmund (Germany) as a civil engineer. He is head of the department Power Plant Structures of Constructure GmbH, Germany. His fields of activity are assessment and the design of newbuild, retrofit and demolition of complex power plant structures including Industrial Chimneys. He is member of CICIND, German Demolition Association and German Association for Steel Chimneys.

WHO SHOULD ATTEND?

The training program is open to the professionals in the Thermal Power Plants, Power plant Utilities, Technical consultants, etc.

REGISTRATION FEE

The duration for the training program will be of 90 minutes each day (1500-1630 hours) which will be followed by Q&A session.

The participation fee for full 3 days shall be:

Number of Participants	*Member Fee per nomination	*Non-member Fee per nomination
1 or more	Rs.3,600	Rs.4,000
5 or more	Rs.3,300	Rs.3,600
10 or more	Rs.3,000	Rs.3,300
15 or more	Rs.2,800	Rs.3,000
Ph.D Scholars or M.Tech Students(max age=35 years)		Rs.1,000

18% GST will be charged extra.
(GST No. 07AAAJC0237F1ZU)

TO REGISTER:

The perspective participants, desirous of attending the training program may register themselves by sending the following details to CBIP along with necessary payments:

Name:_____
Designation:_____
Organization & GST Number_____
Mailing address:_____
Mobile No.:_____

Payments of registration fee should be made by cheque at par/Demand Draft drawn in favour of **"Central Board of Irrigation and Power",** payable at New Delhi or by transfer the amount to HDFC Bank,
Address: 209-214, Kailash Building, 26 Kasturba Gandhi Marg, New Delhi 110001,
Saving Bank Acc. No: 00031110004411;
Swift Code: HDFCINBBDEL;
IFSC: HDFC0000003;
MICR Code:110240001

*****The program is limited to 200 participants & it shall be conducted in Microsoft Teams*****
*****Only the registered participants shall be allowed to attend the program*****
***** The organizations must share the payment details with CBIP via mail*****

HOW TO JOIN

After registration, the participants will be provided the link 1 day prior to the session to participate on their registered e-mail ids. The link shall first open for joining on 1430 hours on 01st February 2022.

Steps to join the program: -

For joining through laptop/Desktop: -

Step-1: - Click on the link provided.
(*Your internet browser will open along with 3 options*)
Step-2: - Click on the option "**Continue on this browser"**
(*The Microsoft Teams window will open on the browser with a field to write the name*)
Step-3: - Enter the name of organization and yourself and click on "**Join Now**" (example: CBIP-Shashank)

For joining through mobile/smartphone:-

Step-1: - First Download the MicroSoft Teams App from play store/ app store on your phone
Step-2: - Click on the link provided.
(*Microsoft Teams app will open along with 2 options*)
Step-3: - Click on the option "**Join meeting"**
(*A window to enter the name will open on the browser*)
Step-4: -Enter the name of organization and yourself and click on "**Join meeting**" (example: CBIP-Shashank)

ADDRESS FOR CORRESPONDENCE

Shri A.K. Dinkar, Secretary, CBIP
Shri Sanjeev Singh, Director (E), CBIP

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