

*Tutorial Course on*  
**Boiler Tube Failures - Causes and Remedial Measures**

**30-31 July, 2018**

**Conference Hall, CBIP  
Malcha Marg, Chanakyapuri, New Delhi**



*Organised by*



**Central Board of Irrigation & Power**

## ABOUT CBIP

The Central Board of Irrigation & Power (CBIP) has been serving the nation with great distinction as a premier institution for dissemination of knowledge and exchange of professional experiences in the field of Power Generation, Transmission and Distribution of electricity, renewable energy besides various fields of Water Resources. The objective is achieved by the Board through various modes like organizing Conferences, Workshops, Imparting Training and preparation of Manuals etc.

CBIP is conducting long term and short term training programs in the field of power generation, transmission and distribution including water resources at New Delhi and also at its CBIP Center of Excellence at Gurugram (Gurgaon), Haryana. Realizing the constraints being faced by the professionals in leaving their stations/ headquarters for attending various training programs organized by CBIP, we, at CBIP have started conducting Door Step/ On Site training programs at required project sites etc. with the aim to provide training and develop skills of various professionals of the organizations dealing in Power Sector as well as Renewable Energy Sector.

With the above aim and to help the Indian Engineers and chemists to identify various boiler tube leakages and to understand the role of water chemistry in boiler tube failures including metallurgical analysis CBIP is organizing Tutorial Course on '**Boiler Tube Failures-Causes and Remedial Measures**', on 30-31 July, 2018 in the CBIP Conference Hall, Malcha Marg, New Delhi.

## PROGRAM OVERVIEW

Boiler tubes undergo abrupt failures by rupture or leakage. The problem is generally detected during operation rather than during hydro test or other inspection activities. This calls for immediate attention and can often require shutdown of the boiler leading to down time and loss of generation. It is essential to understand the various modes and mechanisms by which the boiler components such as tubes, headers, pipes and turbine blades failed. Having proper understanding of the damage mechanisms, the inspection activities and on-line monitoring tools as necessary are addressed in a more systematic manner.

Metallurgical root-cause investigation helps to narrow down the reasons of failure and provides inputs to make proper corrective action.

## PROGRAM PROFILE

- Boiler water chemistry and its role in boiler tube failures.
- Root Cause Analysis (RCA) investigation and Metallurgical analysis.
- Case histories of tube failures, their analysis and remedial measures.
- Quantitative and Qualitative analysis of deposit and chemical cleaning of boilers and condensers.
- Types of Boiler Tube Failure mechanism and their classification
- Understanding and locating tube failure with operational parameters and job involvement in identification of location after unit shut down.
- Boiler Tube Failure mapping and root cause analysis
- Boiler tube failure reduction plan with boiler quality inspection and overhauling.
- Different case studies of Boiler tube failures in Thermal and Gas Power Plants.

## METHODOLOGY

The program would be delivered through classroom sessions, case studies, and interactive group discussions.

## PRESENTATIONS BY EXPERTS

The lead faculty for this program shall be Dr. Pradeep Jain, Former General Manager, NTPC-NETRA and Mr. R.S. Yadava, Former General Manager (OS), NTPC along with invited eminent experts from manufacturing organisations, power utilities, academic & consulting institutions shall be sharing their in-depth experiences with the participants.

## WHO MAY ATTEND

Executives working in Operation, Maintenance, Design, Erection and Efficiency divisions of Boiler & Turbine and Generator and Chemist / Chemical Engineers.

## DATE AND VENUE

The program will be held on 30-31 July, 2018 (Monday and Tuesday) in the Conference Hall, CBIP, Malcha Marg, Chanakyapuri, New Delhi-110021.

## ABOUT FACULTY



**Dr. Pradeep Jain**, Former General Manager, NTPC-NETRA is M.Sc. (Chemistry), MBA, and Ph.D (Chemistry) and has about 35 years of experience in various capacities in the field of Corrosion and water chemistry. He has specialisation in the field of corrosion study in power plant equipments, post-operational chemical cleaning of high-pressure boilers & condensers, Deposit weight density measurement in water wall tubes, solvent selection for chemical cleaning of boilers & condensers and its implementation and supervised more than 70 boilers and condensers in NTPC. Presently he is working as Director, M/s RA CHEMTECH Pvt. Ltd. New Delhi, the company involved in the business of chemical cleaning of boilers, pressure parts and condensers etc.



**Shri R.S. Yadava**, Former General Manager (Operation Services), NTPC is Mechanical Engineering Graduate from R.I.T Jamshedpur, Ranchi, Chartered Engineer of Institution of Engineers (India) and Level-D Certified member of IPMA. He has 1 year experience of teaching in Kamala Nehru Institute of Science and Technology, Sultanpur and about 35 years of professional working experience in various thermal power stations of NTPC in various positions including 4 years in Renusagar Power Company Ltd.

## REGISTRATION FEES

The perspective participants, desirous of attending the Tutorial Course may register themselves by sending the details to CBIP along with necessary payments.

The registration fee for attending the Tutorial Course is given below:

(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 Tutorial Course. Participants will have to make their own arrangement for travel, boarding and lodging, etc. All payments 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 Account No. : 00031110004411

Swift Code: HDFCINBBDEL

IFSC: HDFC 0000003

MICR Code: 110240001

## CONTACT PERSON AT CBIP

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