

Date:24/05/2005

## TRIAL CONCLUSION REPORT.

**Client : Bandel Thermal Power Station.**

Sub : Application of Coal additive in boiler No.5 at Bandel TPS in 210 MW commissioned on 1982.

Ref : Order No. BTPS/P-36/C.C&E/04-05/994, Dated.01.03.2005.

Conclusion report between Representatives of M/s. Abhitech Energycon Limited & representatives of BTPS representative.

The following officers were present:

**BTPS (WB PDCL):**

- 1) Mr. G. Chandra *G. Chandra 24/5/05*
- 2) Mr. Asitananda Dey *Asitananda Dey 24/5/05*
- 3) Mr. B. N. Baura *B. N. Baura 24/5/05*
- 4) Mr. I. Manna *I. Manna 24/5/05*

**Abhitech Energycon Limited.**

- 1) Mr. S. Mukherjee *S. Mukherjee 24/5/05*
- 2) Mr. Vikram Bhandari *Vikram Bhandari 24/5/05*
- 3) Mr. A. Naskar *A. Naskar 24/05/05*

Post-trial with THERMACT addition commenced from 15<sup>th</sup> April 2005 and continued upto May 17<sup>th</sup> 2005. The data given below are averaged for the entire period pre and post Thermaact trial.

The following points were concluded:

S.No.	Parameters	Pre Avg.	Post Avg.	Remarks
1.	Load	172	170	Constant Load
2.	Boiler efficiency	84.52	86.33	Improvement in efficiency by 2.2%
3.	Unit Heat Rate	2592	2530	Reduction by 62 kcal/ Kwh (2.39%)
3.	Unburnt in bottom ash	12.69	8.0	36.96 % reduction
4.	Unburnt in fly ash (APH)	8.21	3.7	55.0 % reduction
5.	Unburnt in fly ash (ESP)	4.22	3.3	22.0 % reduction
6.	APH outlet temp.	165	160	5.°C reduction
7.	O <sub>2</sub> level	2.8%	2.3%	18% reduction
8.	Total Air Flow	695	659	36 TPH reduction
9.	Particle Density (mg/ M <sup>3</sup> )	240	154	32% reduction
10.	F D Fan amps	62	61	1.61% reduction
11.	I D Fan amps	90	84	6.67 % reduction

**Apart from the above-mentioned observations, other parameters noted are as given below:**

- Improved flame characteristics during Thermaact Feeding.
- Continuous reduction of furnace wall slag during the post-trial.
- Clinkers found always melting during Thermaact feeding at patent superheater tube zone and also clinker volume reduced .

*ASIT ARANDA DE*  
24/5/05  
Sr. Manager Lost Control &  
Efficiency  
B.P.S., WBPDCL, Tribeni  
Hooghly,

*A. Naskar*  
24/5/05