


EVENT ANALYSIS REPORT

UNIT NO : 03		TPS : Khaperkheda TPS		Unit Capacity : 210 MW	
1. *HO Code :	Station Code : T003	Time - 11:00 Hrs	Date - 22/10/2016	No. of days from last sync. : 7 days	
2. Operating conditions at the time of Event :-					
Load		Coal Cycles in service		Oil Support	
60 MW		A & B		NIL	
3. Nature of Event : TA set withdrawn due to boiler tube leakage at economizer zone.					
4. Name of First Up , Main Protections & Protection on which GCB tripped : Hand Tripped (First Up), Turbine Trip Gear Operated, Turbine Tripped, MFT Operated					
5 A) Observations : On dt. 22/10/2016 at 10.00 hrs, set was on load at 204 MW with five coal cycles in service (F-standby) and no oil support. Boiler tube leakage sound noticed near LRSB No.81. DM make-up found increased. After confirmation of boiler tube leakage in economizer zone, load started reducing by withdrawing coal cycles, one by one. Finally, set hand tripped at 11:00 hrs when the load was 60 MW with C/M-A & B in service and no oil support.					
5 B) Remedial Action/work done :- <u>Primary Failure</u> - Economizer upper bank coil no. 137, tube No.2 found fish mouth opening punctured. <u>Secondary Failure</u> - Economizer upper bank coil no. 138 tube no. 2 & 3 are found severely eroded and coil no. 136 tube no. 2 found punctured. <u>Work carried out</u> : Economizer upper bank coil no. 136, 137 & 138 attended by welding hemispherical spools at economizer intermediate and economizer inlet header. Total HP weld joints = 06 Nos.					
6. Root Cause Analysis : Localized and concentrated flue gas erosion is the root cause of failure of tube no. 2 of economizer upper bank coil no. 137.					
7. Preventive action suggested (Short Term) :- 1) Normalization of plugged economizer coils no. 136, 137 and 138 will be carried out during forthcoming AOH. 2) Replacement of all eroded and plugged economizer coils will be carried out during forthcoming AOH of Unit no. 3.					
8. Preventive action suggested (Long Term) :-					
9. Similar event occurred last time:-		Unit No # 4 , 210 MW	Time : 23:53 Hrs	Date: 08/06/2016	
Event: TA set tripped (hand tripped) due to boiler tube leakage at economizer zone.					
Remedial Actions: <u>Primary Failure</u> - Economizer upper bank coil no. 151, tube No.4 found fish mouth opening punctured. <u>Secondary Failure</u> - 1) Economizer upper bank coil no. 152 tube no. 2 & 3 and coil no. 153 tube no. 2 & 3 found severely eroded. Coil no.153 tube no.2 & 3 also found punctured. 2) Front steam cooled wall inlet header SHH-5 Stub no. 1 found pin hole punctured. <u>Work carried out</u> : Total HP weld joints = 08 Nos. (07 Butt Joints & 01 Stub Joint) 1) Economizer upper bank coil no. 151, 152 & 153 attended by welding hemispherical spools at economizer intermediate and economizer inlet header . 2) Replacement of stub no. 1 of front steam cooled wall inlet header SHH-5.					
9A. Implementation Status of Long Term/Short Term measures stated at Sr No 7 & 8:- The above corrective action will be implemented in August-16 by BM-I section.					
10. Boiler lighted up		Time - 05:40 Hrs	Date - 23/10/2016		
11. T-A Set Synchronized		Time - 09:33 Hrs	Date - 23/10/2016		
12. Remark :-					
 Chief Engineer					
13. Recommendations of Works Section:					
1. Procurement/Replacement Plan:					
2. Operational Error:					
3. Delay in Maintenance:					
4. Delay in bringing back the Unit:					
5. Training of Staff:					
6. Whether remedial action is completed satisfactory & point is closed:					
C E/Dy C E (Works)					