

EVENT ANALYSIS REPORT

UNIT NO : 04					TPS : Khaperkheda TPS		Unit Capacity : 210 MW	
1. *HO Code :	Station Code : T003	Time - 03:19Hrs	Date - 10/07/2017	No. of days from last sync. : 4 days				
2. Operating conditions at the time of Event :-								
Load 59 MW		Coal Cycles in service B & C				Oil Support NIL		
3. Nature of Event: TA set withdrawn due to boiler tube leakage in economiser zone.								
4. Name of First Up , Main Protections & Protection on which GCB tripped : Hand Trip (First Up), MFT Operated, Turbine Tripped, Trip gear Operated.								
5 A) Observations: On dt. 10/07/2017 at 03:00 hrs, set was on load at 140MW with five coal mills in service(F-S/by) and no Oil support. As DM water make up increased to 80 TPH also Boiler tube leakage sound observed at 38.5 mtr. level near LRSB No.79 RHS. So one by one mills are withdrawn, unit hand tripped and finally, set withdrawn at 03:19 hrs.								
5 B) Remedial Action/work done : <u>Primary Failure</u> - Economiser upper bank coil no. 128 tube no. 03 found fish mouth opening punctured. <u>Secondary failure</u> - Economizer upper bank coil no.134 tube no.03 found punctured. Economizer upper bank coil no.127 tube no.3 found eroded. <u>Work carried out:</u> Economizer upper bank coil no.127,128,131 &134 attended by welding hemispherical spool at economizer Intermediate and economizer Inlet header (Total No. of HP weld Joints = 08 Nos.)								
6. Root Cause Analysis : localized flue gas erosion of tube no.3 upper bank coil no 128 is the root cause failure.								
7. Preventive action suggested (Short Term) :								
8. Preventive action suggested (Long Term) : 1) Replacement of complete economizer coil during forth coming AOH of Unit 4. 2) Normalization of plugged economizer coil no.127, 128, 131 & 134 will be carried fourth coming AOH of unit no.4.								
9. Similar event occurred last time :		Unit No # 4 , 210 MW		Time : 10:20Hrs		Date : 26/06/2017		
Event : T. A. set forced withdrawn (hand tripped) due to boiler tube leakage at economizer coils.								
Remedial Actions <u>Primary Failure</u> - Economiser upper bank coil no. 144 tube no. 16 found fish mouth opening punctured. <u>Secondary failure</u> - 1) SCW inlet header SHH 4A connecting RHS offset bend no.1 &2 found punctured and bend no.3 found eroded. 2) Economizer upper bank coil no. 145 tube no.17 found puncture. <u>Work Carried Out</u> - 1) Economizer upper bank coil 144 & 145 attended by welding hemispherical spool at economizer Intermediate and economizer Inlet header. 2) Replacement of SCW inlet header SHH 5 to SHH 4A connecting RHS offset no.1, 2 & 3. (Total no of HP joints =13)								
9A. Implementation Status of Long Term/Short Term measures stated at Sr No 7 & 8 :-								
10. Boiler lighted up		Time - 03:45 Hrs		Date - 11/07/2017				
11. T-A Set Synchronized		Time - 07:56Hrs		Date - 11/07/2017				
12. Remark :								
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)								

plpaul
21/7
Chief Engineer