


EVENT ANALYSIS REPORT				
UNIT NO : 04	TPS : Khaperkheda TPS		Unit Capacity : 210 MW	
1. *HO Code :	Station Code : T003	Time - 03:35Hrs	Date - 13/07/2017	No. of days from last sync. : 2 days
2. Operating conditions at the time of Event :-				
Load		Coal Cycles in service		Oil Support
170 MW		A, B, C, D & E		NIL
3. Nature of Event: TA set tripped on drum level very high protection.				
4. Name of First Up , Main Protections & Protection on which GCB tripped : Drum Level Very High (First Up), MFT Operated, Turbine Tripped, Trip gear Operated.				
5 A) Observations: On dt. 13/07/2017 at 03:35 hrs, set was on load at 170MW with five coal mills in service(F-S/by) and no oil support. Suddenly Drum level increased and set tripped on "Drum level very high" Protection. And found that boiler has developed tube leakages. After attending BTL, Unit became available at 13:20 hrs. on 14/07/17 but RSD declared. COH declared on 02/08/2017 at 00:00 hrs.				
5 B) Remedial Action/work done : <u>Primary Failure</u> - WW screen tube no. 58 B found puncture. <u>Secondary failure</u> - 1) WW screen tube no. 60A, 60B, 61A & 61C found eroded. 2) Economizer upper bank coil no. 6 tube no. 4 found punctured and eco upper bank coil no.7 tube no.3 found eroded. <u>Work carried out</u> - 1) Replacement of WW screen tube no. 61 A, 61C, 60A, 60B & 58B. 2) Economizer upper bank coil no. 6 & 7 attended by welding hemispherical spool at economizer intermediate and economizer inlet header. (Total No. of HP weld Joints =14 Nos.)				
6. Root Cause Analysis :Thermal stress rupture due to pulsating load variation is the root cause of failure of tube no 58 B of water wall screen tube.				
7. Preventive action suggested (Short Term) :				
8. Preventive action suggested (Long Term) :1) Dimensional measurement and hardness measurement of WW screen tube carried out during COH of unit 4. 2) Normalization of dummied coil no.6 & 7 during COH 2017. 3) Replacement of complete economizer coil during COH 2017.				
9. Similar event occurred last time :		Unit No # 4 , 210 MW	Time : 10:20Hrs	Date : 26/06/2017
Event: TA set withdrawn due to boiler tube leakage in economiser zone.				
Remedial Actions: <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.)				
9A. Implementation Status of Long Term/Short Term measures stated at Sr No 7 & 8 :-				
10. Boiler lighted up		Time - 21:16 Hrs	Date - 05/10/2017	
11. T-A Set Synchronized		Time - 16:51Hrs	Date - 06/10/2017	
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)				