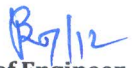


EVENT ANALYSIS REPORT				
UNIT NO : 04	TPS : Khaperkheda TPS		Unit Capacity : 210 MW	
1. *HO Code :	Station Code : T003	Time -15:38 Hrs	Date - 19/11/2016	No. of days from last sync. : 14 days
2. Operating conditions at the time of Event :-				
Load		Coal Cycles in service	Oil Support	
80 MW		C & D	NIL	
3. Nature of Event: T. A. set forced withdrawn due to boiler tube leakage at RHS extended steam cooled walls.				
4. Name of First Up , Main Protections & Protection on which GCB tripped : Hand Tripped (First Up), MFT Operated, Turbine Tripped, Turbine Trip Gear Operated.				
5 A) Observations: On dt. 19/11/16 at 15:00 hrs, set was on load at 185 MW with five coal cycles in service (F - S/by) & no oil support. DM make up found increased to 81 TPH and also abnormal sound was noticed near LRSB -75 at 42.8 mtr level. After confirmation of boiler tube leakage, coal mills-A, E & B were withdrawn one by one for reducing load in order to withdraw the set. Finally, set was withdrawn at 15:38 Hrs. when the load was 80 MW and coal cycle - C & D in service. GCB opened on Reverse Power Protection.				
5 B) Remedial Action/work done : <u>Primary Failure</u> - RHS Extended steam cooled wall Tube no. 1 found punctured near fin weld. <u>Secondary failure</u> - 1) RHS Extended Steam cooled wall tube no.2 found punctured and tube no.3, 4 & 5 are found eroded. 2) RHS steam cooled wall tube no.1 found punctured tube no. 2 found eroded. 3) SH. Screen tube no. 98 found punctured and tube no.97 found eroded. <u>Work Carried Out</u> - 1) Replacement of SH screen tube No.97 & 98. 2) Replacement of RHS Extended SCW tube No. 1, 2, 3, 4 & 5. 3) Replacement of RHS SCW tube no.1&2. Total No. of HP weld joints = 20 Nos.				
6. Root Cause Analysis : Thermal vibration fatigue resulted into cracks developed near fin of tube no. 1 of RHS extended steam cooled wall is the root cause of failure.				
7. Preventive action suggested (Short Term) :				
8. Preventive action suggested (Long Term) : (1) Erosion profile mapping & CAVT at SH screen tube area will be carried out during forthcoming AOH of Unit No. 4. (2) D.P test of pressure part components attachment welds will be carried out during forthcoming AOH of Unit No.4.				
9. Similar event occurred last time:	Unit No # 4 , 210 MW	Time: 17:40 hrs.	Date: 08/12/2015	
Event: T.A. Set forced withdrawn due to Boiler tube leakage. Remedial Actions : Economiser upper bank coil no. 123 plugged by welding hemispherical spool at Economiser inlet & intermediate header.				
9A. Implementation Status of Long Term/Short Term measures stated at Sr No 7 & 8 :				
10. Boiler lighted up	Time - 23:12Hrs	Date - 04/11/2016		
11. T-A Set Synchronized	Time - 07:08 Hrs	Date - 05/11/2016		
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)				