


EVENT ANALYSIS REPORT				
UNIT NO : 03	TPS : Khaperkheda TPS		Unit Capacity : 210 MW	
1. *HO Code :	Station Code : T003	Time - 07:00 Hrs	Date - 07/05/2016	No. of days from last sync. : 58 days
2. Operating conditions at the time of Event :-				
Load 80 MW		Coal Cycles in service A, B & C		Oil Support NIL
3. Nature of Event : TA set tripped (hand tripped) 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 Tripped, MFT Operated, Trip Gear Operated.				
5 A) Observations : - On dt. 07/05/2016 at 06.15 hrs, set was on load at 205 MW with five coal cycles in service (E-standby) and no oil support. At 06.30 hrs, boiler tube leakage suspected due to disturbance in boiler parameters. Considerable variation observed in feed flow. Drum level found dropped to low level (- 153 mm) with sudden increase in DM make-up (>81 TPH). The tube leakage got confirmed in economizer zone by BM-I and load started reducing by withdrawing coal cycles-3F (06.40 hrs) & 3D (06.55 hrs), one by one. Set hand tripped at 07:00 hrs when the load was 80 MW with coal mills-A, B & C in service and no oil support.				
5 B) Remedial Action/work done : - <u>Primary Failure</u> - Economizer upper bank coil no. 143, tube No.3 found fish mouth opening punctured. <u>Secondary failure</u> - Economizer upper bank coil no. 146, tube No.4 found severely eroded. Economizer upper bank coil no. 143 & 146 plugged by providing hemispherical spools at economizer intermediate & economizer inlet header. (Total Joints - 04 Nos)				
6. Root Cause Analysis: - Localized and concentrated flue gas erosion might be the root cause of failure of tube no.3 of economizer upper bank coil no. 143.				
7. Preventive action suggested (Short Term) :- 1) Normalization of dummied economizer upper bank coil no. 143 & 146 during forthcoming AOH of Unit-3. 2) Replacement of eroded & dummied coils will be carried out during forthcoming AOH of Unit-3.				
8. Preventive action suggested (Long Term):-				
9. Similar event occurred last time:-		Unit No # 4 , 210 MW	Time : 03:00 Hrs	Date: 11/05/2016
Event : T.A. Set withdrawn to attend boiler tube leakage at Economizer zone.				
Remedial Actions : Economizer upper bank coil No. 155 & 156 plugged by welding (Total 04 Nos.) hemispherical spools at economizer intermediate and economizer inlet header.				
9A. Implementation Status of Long Term/Short Term measures stated at Sr No 7 & 8 :- The above corrective action will be implemented in September-16 by BM-I section.				
10. Boiler lighted up		Time - 01:40 Hrs	Date - 08/05/2016	
11. T-A Set Synchronized		Time - 05:53 Hrs	Date - 08/05/2016	
12. Remark :- <div style="text-align: right;"> Chief Engineer</div>				
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)				