


EVENT ANALYSIS REPORT

UNIT NO : 02		TPS : Khaperkheda TPS		Unit Capacity : 210 MW	
1. *HO Code :		Station Code : T003	Time - 17:27 Hrs	Date - 21/02/2018	No. of days from last sync. : 9 days
2. Operating conditions at the time of Event :-					
Load		Coal Cycles in service		Oil Support	
60 MW		A & C		NIL	
3. Nature of Event: T.A. set forced withdrawn to attend boiler tube leakage at LTSH zone.					
4. Name of First Up, Main Protections& Protection on which GCB tripped : Flame Failure (First Up), Gen. Protection Operated, Load Shedding Relay Operated, Gen. Reverse Power Protection, Relay-2 Operated, AVR PT Fuse Failure.					
5A) Observations: On dt. 21/02/2018 at 17:00hrs. set was on load at 165 MW with five coal cycles in service (D S/by). Heavy leakage sound was noticed at 33 mt. elevation at LTSH zone. After confirming boiler tube leakage, load reduced gradually by withdrawing coal cycle one by one and set tripped on flame failure Protection.					
5 B) Remedial Action/work done: <u>Primary Failure</u> – LTSH lower bank coil no. 100 tube no.21 found punctured. <u>Secondary failure</u> –1) LTSH lower bank coil no. 100 tube no. 20 and Coil no. 99 tube no.20 & 21 are found eroded. 2) LTSH lower bank coil no. 101 tube no. 18 found eroded and tube no. 19, 20 & 21 are found punctured. 3) LTSH lower bank coil no. 102 tube no.18, 19, 20 & 21 are found eroded. 4) Rear economiser hanger no. 51 found punctured. 5) LTSH lower bank coil no.103 tube no.21 is found eroded. <u>Work carried</u> – Replacement of punctured and eroded tubes of LTSH lower bank coil no. 99, 100, 101, 102 & 103 and rear economizer hanger no. 51 is carried out. Total no. of joints =56 Nos.					
6. Root Cause Analysis: Localized flue gas erosion of tube no. 21 of LTSH lower bank coil no. 100 is the root cause of failure.					
7. Preventive action suggested (Short Term): Gradual loading & unloading during load variation is to be monitored strictly and necessary instructions have been displayed in control room to carry out loading and unloading within stipulated time period. Circular (No.618 dated 03.12.16) in this regard issued to all the concerned.					
8. Preventive action suggested (Long Term) :-					
9. Similar event occurred last time:-		Unit No # 1, 210MW	Time: 10:26 Hrs	Date:28/01/2015	
Event: - T.A. set withdrawn to attend boiler tube leakage at LTSH Zone. Remedial Actions: 1. Replacement of Rear steam Cooled Wall Tube No. 61 to 66. 2. Replacement of Bend 900 of LTSH Upper Bank Coil No. 63 and 64 of Tube No.1 3. Checking of Mirror image of Front Steam Cooled Wall Portion carried out. Total No. of HP weld joints = 16 Nos.					
9A. Implementation Status of Long Term/Short Term measures stated at Sr No 7&8 :-					
10. Boiler lighted up		Time -14:30 hrs.	Date- 14/03/2018		
11. T-A Set Synchronized		Time -22:30 hrs.	Date- 14/03/2018		
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)					