EVENT ANALYSIS REPORT				
UNIT NO : 01	TPS : Khaperkheda TPS		Unit Capacity : 210 MW	
1. *HO Code :	Station Code : T003	Time – 14:54 Hrs	Date - 14/05/2016	No. of days from last sync. : 45 days

2. Operating conditions at the time of Event :-

Load	Coal Cycles in service	Oil Support
70 MW	A & C	Nil

3. Nature of Event: T.A. Set withdrawn due to boiler tube leakage at steam cooled wall.

4. Name of First Up , Main Protections & Protection on which GCB tripped :
Hand Tripped, **(First Up)** Loss of all fuel, Boiler Tripped, Generator Protection Operated.

5A) Observations: On dt. 14/05/2016 at 14.00 hrs, set was on load at 165 MW with five coal cycles in service (B-U/P) and no oil support. At 14.30 hrs, boiler tube leakage suspected due to disturbance in boiler parameters. Drum level found dropped to low level with sudden increase in DM make-up. So, load started reducing by withdrawing coal cycles-F, E & D, one by one. Set hand tripped at 14:54 hrs when the load was 70 MW with coal mills-A & C in service and no oil support, to attend boiler tube leakage.

5 B) Remedial Action/work done :
Primary Failure - Front steam cooled wall header SHH-5 stub no. 4 found punctured.
Secondary failure – Front steam cooled wall header SHH-5 stub no. 5 found punctured and external surface of SHH-5 header between stub no. 4 & 5 found damaged due to steam erosion approx. 100mm x100 mm x 15 mm depth.
Replacement of stub no. 4 & 5 of front SCW header SHH-5 is carried out.
Repairing of external surface of SHH-5 header by preheating, welding & post heating process.
Total 04 Nos. HP weld joints. (02 Nos. of butt joint and 02 Nos. of stub joints)

2. **Root Cause Analysis :** Thermal stress ruptured due to load variations and cyclic loading & unloading might be the root cause of failure of stub no. 4 of front steam cooled wall header SHH-5 which resulted into stub joint cracks.

7. Preventive action suggested (Short Term) :
(1) DP test & ultrasonic test of all stubs connection joints of front steam cooled wall header SHH 5 will be carried out during forthcoming AOH of Unit no. 1.
(2) Checking of mirror image of stub joints of LHS of SHH 5 and strengthening the same.
(3) Strengthening stub joint 1, 2 & 3 of SHH 5 header RHS side.

8. Preventive action suggested (Long Term) :-

9. Similar event occurred last time:-	Unit No # 1, 210 MW	Time : 16:27 hrs	Date : 01/10/2015

Event: - T.A. Set withdrawn due to boiler tube leakage at economizer side & Water Wall.

9A. Implementation Status of Long Term/Short Term measures stated at Sr No 7 & 8 :- The above corrective action will be implemented in July-16 by BM-I section.

10. Boiler lighted up	Time – 23:30 Hrs	Date- 15/05/2016
11. T-A Set Synchronized	Time – 05:26 Hrs	Date- 16/05/2016

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)