


EVENT ANALYSIS REPORT				
UNIT NO : 04	TPS : Khaperkheda TPS		Unit Capacity : 210 MW	
1. *HO Code :	Station Code : T003	Time - 06:32 Hrs	Date - 23/05/2017	No. of days from last sync. : 5 days
2. Operating conditions at the time of Event :-				
Load		Coal Cycles in service	Oil Support	
130 MW		A, C, D & E	NIL	
3. Nature of Event : Unit withdrawn to attend broken bolts of LPT rear gland box.				
4. Name of First Up , Main Protections & Protection on which GCB tripped : Hand Tripped (First Up), MFT Operated, Turbine Tripped, Generator Class-A Operated.				
5 A) Observations : At 06:00 hrs on date 23/05/2017, unit was on load at 162 MW with 5 Coal cycles (Coal mill – B standby) in service. At 06.20 hrs, load was started reducing by withdrawing coal cycle – F in order to withdraw the unit for replacing broken bolts (2 Nos – A & E) of LPT rear gland box and turbine bearing no.4 having high vibrations. Finally, set hand tripped at 06:32 hrs on date 23/05/2017 when load was 130 MW with four coal cycles in service. GCB opened on 'Reverse Power Protection'.				
5 B) Remedial Action/work done : (1) Two nos of broken bolts (A & E) of LPT rear gland box, replaced with new ones. (2) Centering of gland box done.				
6. Root Cause Analysis : LPT rear gland box bolts (2 Nos – A & E) found damaged due to high axial vibrations (Displacement – 318 microns and Velocity – 50.5 mm/s as on dt.19.05.17) of turbine bearing No.4. At about 05:00 hrs on dt. 23/05/2017, bearing vibrations (microns) : X ₄ = 49, Y ₄ = 56.				
7. Preventive action suggested (Short Term) :				
8. Preventive action suggested (Long Term) : During U-4 overhaul (Jul-17), following works will be taken up. (1) LPT rotor run-out removal and high speed balancing work. (2) New gland box installation work. (3) Pedestal No.4 regrouting work.				
9. Similar event occurred last time :		Unit No # 4 , 210MW	Time: 00:17 Hrs	Date : 17/05/2017
Event : Unit withdrawn to attend broken bolts of LPT rear gland box.				
Remedial Actions : (1) All the bolts (8 Nos) of LPT rear gland box, replaced with new ones. (2) Gland sealing pipes, inlet as well as outlet, re-welded after stress removal. (3) Centering of gland box done with new washers and new keys.				
9A. Implementation Status of Long Term/Short Term measures stated at Sr No 7 & 8 :-				
10. Boiler lighted up		Time – 13:27 Hrs	Date - 23/05/2017	
11. T-A Set Synchronized		Time – 17:12 Hrs	Date - 23/05/2017	
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)				