


EVENT ANALYSIS REPORT				
UNIT NO : 04	TPS : Khaperkheda TPS		Unit Capacity : 210 MW	
1. *HO Code :	Station Code : T003	Time - 21:07 Hrs	Date - 20/01/2016	No. of days from last sync. : 43 days
2. Operating conditions at the time of Event :-				
Load		Coal Cycles in service		Oil Support
108 MW		B, D & E		NIL
3. Nature of Event: Unit withdrawn to replace gland box sheared-off bolts at LPT.				
4. Name of First Up , Main Protections & Protection on which GCB tripped : Hand Tripped (First Up), MFT Operated, Turbine Tripped, RH Protection, Generator Class-A Operated.				
5 A) Observations: - At 20:00 hrs on date 20/01/2015, unit was on load at 167 MW with 5 Coal cycles (A, B, D, E & F) in service. The load was started reducing by withdrawing coal cycles one by one in order to withdraw the unit for replacing sheared off bolts of LPT gland box. Set hand Tripped at 21:07 hrs on date 20/01/2016 when load was 108 MW with coal cycles B, D & E in service.				
5 B) Remedial Action/work done: - LPT gland box centering done and all the holding bolts LPT gland box (Total 08 Nos) replaced with new OES bolts.				
6. Root Cause Analysis:- LPT rear gland box bolts damaged due to high vibrations of turbine shaft & bearings. At about 21:00 hrs on dt. 20/01/2016, Shaft vibrations (microns) : $X_2 = 129$, $Y_2 = 56$, $X_4 = 47$, $Y_4 = 115$ Bearing vibrations (microns) : $X_4 = 35$, $Y_4 = 47$				
7. Preventive action suggested (Short Term) :-				
8. Preventive action suggested (Long Term) :- BHEL recommended long-term action plan to be implemented.				
9. Similar event occurred last time:-		Unit No # 4 , 210 MW	Time : 22:15 Hrs	Date: 04/12/2015
Event: Unit withdrawn to replace gland box sheared-off bolts at LPT.				
Remedial Actions: - LPT gland box centering done and all the holding bolts of LPT gland box (08 Nos) replaced with new ones.				
9A. Implementation Status of Long Term/Short Term measures stated at Sr No 7 & 8 :-				
10. Boiler lighted up		Time - 03:20 Hrs	Date- 22/01/2016	
11. T-A Set Synchronized		Time - 08:10 Hrs	Date- 22/01/2016	
12. Remark:- At 15:00 hrs. on dt. 22/01/16 turbine bearing and shaft vibrations recorded at 154 MW and found as follows: Shaft vibrations (microns) : $X_2 = 146$, $Y_2 = 59$, $X_4 = 65$, $Y_4 = 121$ Bearing vibrations (microns) : $X_4 = 27$, $Y_4 = 40$				
 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)				