

TRIP ANALYSIS REPORT

TRIP ANALYSIS REPORT /TAR-14/ UNIT 2 / 14.05.2017

Dt. 20-05-17

OCCURRENCE:

- (a) **Condition:** Load: 364 MW in LP mode and coal flow 193 tph with 5 Mills at 21:38 hrs. on 14.05.17.
- (b) **Incident:** Turbine tripped at 21:39:02 hrs on Generator class-A protection (Stator Earth Fault) and Boiler was in service with HPLP bypass and Oil support. Boiler was boxed up at 22:00 hrs until further clearance from EM.

SOE OF DDCMIS ALARM PAGES:

TIME	DESCRIPTION	STATUS
21:39:02	STG1 Trip Relay 286A	Operated
21:39:02	Gen Breaker	Open
21:39:02.671	Turbine trip relay CH-1	On
21:39:02.730	Turbine LSR ON (D5)	True
21:39:03	Tur Trip CH2.3 CMD	Tripped

BOARD OPERATOR Feedback:

Unit was in service at 364 MW. Turbine tripped on generator class-A protection and HPLP bypass came into service. MDBFP came in auto and boiler came to 3 mill condition on the interlock of GCB open. After tripping of turbine, turbo speed excursed to 3166 rpm.

Boiler was kept in service till 22:00 hrs. As per the instruction, Boiler was hand tripped at 22:00 hrs and it was hot boxed up.

ANALYSIS from SOE:

From SOE it was found that STG1 Trip relay 286 A acted at 21:39:02 hrs and Generator breaker opened on Class A protection which was due to Stator earth fault. On analysis it was found that B phase of VT2 failed and lead to acting of stator earth fault. Turbine trip relay CH-1 acted at 21:39:02.671 hrs and LSR acted at 21:39:02.671 hrs. Though LSR acted, due to Class A protection turbine speed excursed to 3166 rpm.

CONCLUSION:

Following points were concluded:

- Turbine tripped on Class A protection due to stator earth fault.
- Turbine speed excursed to 3166 rpm because of Class A protection even though LSR acted.

- Stator earth fault was due to failure of B phase in VT2.

After getting clearance from Electrical Maintenance, the boiler was light up at 00:49 hrs and the unit was synchronized at 02:37 hrs on 15.05.2017.

RECOMMENDATIONS:

- VT2 may be replaced with Good quality material.
- VTs shall be regularly inspected and healthiness shall be ensured.

CM/OS(T)

ADGM/C&I

DGM/Elec

DGM/O&C