UNIT TRIPPING REPORT

UNIT No: 1

STATION: NTPL, TUTICORIN.

OUTAGE: NO. 32

REPORT NO:32

1.Date of tripping	: 01-10-2018
2.Time of tripping	: 04:36:42 Hrs
3.Status before tripping	
a) Unit load	: 411 MW
b) Mills in service	: A, B, D, F, G & H
c) Oil guns in service	: NIL
d) Boiler feed pumps in service	: TDBFP A&B
e) CEPs in service	: A&B
f) ID fans in service	: A&B
g) FD fans in service	: A&B
h) PA fans in service	: A&B
i) CWP in service	: A&B
4.First Up protection acted	: MFT (Loss Of All Fuel)
5.Similar occurrences in the Financial Year	: Third incidence of PAF trip
6.Other relays/protection acted	: Turbine trip / Generator trip
7.Supporting documents attached	: SOE & Trend
8.Any operation done prior to tripping	: Nil
9.Analysis of tripping	:

Power supply disturbance occurred in Unit 1 at around 04:36 hrs on 01-10-2018. During this time 415 V Boiler valve damper bus power supply chattered. It was observed that many drives connected to this bus got disturbed. At 04:36 hrs PA Fan1B got tripped on Discharge gate closed contact although Gate was in fully open condition.

PA Fan-B tripping on discharge gate close protection led to PA Header pressure low. Loss of primary air led to all mills trip and boiler tripped on MFT in all three channels. Turbine tripped on MFT on all three channels.

10.Root cause :

MCC disturbance occurred at 04:36:23 hrs which led to false CLOSE indication for PAF-1B discharge gate. This triggered the trip sequence.

PA Fan1B discharge gate closed contact is taken from the actuator 3WD- e pac / 1.1-22412 actuator type. The same type of actuator is used in PA Fan 1A, FD Fan 1A &1B. These fan discharge gate contacts have not affected during the supply disturbance. Later power supply was switched off (Disturbance created manually to check the status changeover.) to check the healthiness of Open indication. The gate was in 100% open condition with open status. But open indication status got vanished when power supply was switched off.

As per Electrical, e-pac Limit switch contact to DCS is taken directly from the micro switch without any processing.

11.Remedial measures taken/to be taken:

C&I side checked trip Logics and found to be same as other PA and FD discharge gates. C&I side cable termination, module healthiness and panel internal wiring checked and found to be intact. To confirm source of the fault, PA Fan 1B discharge gate e pac internal wiring for the micro switch to be checked during next opportunity.

12.Time/Date of boiler light up and sync : 01-10-2018

Light Up: 08:02 Hrs

Sync'd : 10:54 Hrs

13.Delay for light up : No delay

14.Recommendation / Action plan :

Sl.No.	Recommendations/Action plan	Responsibility	Time line
1	PAFan-1B discharge gate e-pac internal wiring for the micro switch to be checked during next opportunity, to confirm the source of the fault.	EM/e&I	Next Opportunity.

15.Any specific learning / feedback :

Any MCC disturbance or supply failure will not affect the actual status of any valve, gate or damper. PAFan-1B discharge gate e-pac internal wiring for the micro switch to be checked during next opportunity.

CM / OS CM/EEMG DGM / C&I DGM / ELECT

DGM / O&C

Copy submitted to GM/O&M

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