UNIT TRIPPING REPORT

UNIT No: 1 STATION: NTPL,

TUTICORIN.

OUTAGE: NO.42

REPORT NO: 42

1.Date of tripping	:22-07-2019
2.Time of tripping	:04:46:00 Hrs
3.Status before tripping	
a) Unit load	:350MW
b) Mills in service	:B,C, E, 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	:Boiler tripped on MFT
5.Similar occurrences in the Financial Year	:Previous trip on PA Fan stop
6.Other relays/protection acted	:Turbine trip &Generator trip
7.Supporting documents attached	: S.O.E & Trend
8.Any operation done prior to tripping	:PAF-1A&BPCD was taken into local mode due to PA header pressure hunting.
9.Analysis of tripping	:

At 23:24 & 00:24 hrs on 22-07-2019 U#1 both PA Fan PCD hunting was noticed. PA header pressure went as low as 660 mmWC. Hence PCD was taken into manual mode and CMC was switched off. All HAD & CAD of running mills were taken to manual, as requested by C&I. The PA fan controller related DCS cabinets CREO7, CRE08 & CRE09 were checked

and PA fan controller DPU was changed over from secondary to primary. The controller in DCS cabinet (CRE07) is controlling the communication among modules in 3 cabinets (CRE07, CRE08 & CRE09). Thereafter auto control of PA was restored.

At 04:46 Boiler got tripped on PA header pressure low as it dipped to below 550 mmWC. All running mills got tripped and MFT acted due to loss of all fuel. TG tripped due to Boiler trip.

10.Root cause :

PA Fans PCD started to close due to communication failure between I/0 modules and DPU controller in CRE 07. Due to this DPU Controller communication failure, the output signal to PA fan has gone to minimum leading to the closure of PA fans PCD.

11.Remedial measures taken/to be taken:

The PA fans PCD command signal output and feedback signal connectivity has been shifted to adjacent healthy DPU system cabinet (CRE 04). PA Fans both PCD were released for operation and kept in auto. All the input / output signals of problematic panel are being checked and continuously monitored for any discrepancy.

CRE 07 DPU controller houses totally 59 I/O modules. Each Module has 16 I/O signals. At present in CRE07 totally six I/O modules (R1M6, R1M7, R1M8, R2M6, R2M7, R2M8) in CRE08 and CRE 09 spare rack modules are isolated on suspected earth fault in field. After isolating the modules, the bus communication is found to be normal. The field inputs of isolated modules are being checked one by one. After identifying and isolating the exact defective input signal, the PCD command signals will be restored in the original system cabinet.

12. Time/Date of boiler light up and sync:

Light Up: 05:28 Hrs on 22.07.2019

Sync'd: 09:16 Hrs on 22.07.2019

13.Delay for light up :No delay.

14.Recommendation / Action plan :

Sl.No.	Recommendations/Action plan	Responsibility	Time line
1)	Faulty Field signal to be identified.	C&I	6 weeks

15.Any specific learning / feedback :

M/s.BHEL, EDN, OEM was appraised about the fault. As per OEM, this communication failure has to be checked by isolating DPU Controller / I/O modules / Communication bus / field Inputs one by one and the fault has to be isolated.

9/8/19

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

DGM / O&C

Copy submitted to CEO / NTPL

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