UNIT TRIPPING REPORT

UNIT No: 1 STATION: NTPL, TUTICORIN.

OUTAGE NO: 87

REPORT NO: 87

1.Date of tripping : 01-06-2024

2.Time of tripping : 15:00:00Hrs

3.Status before tripping

a) Unit load : 483 MW

b) Mills in service : B, C, 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 : Unit hand tripped

5.Other relays/protection acted : Nil

6.Supporting documents attached : Nil

7.Any operation done prior to tripping : Nil

8.Analysis of tripping :

For the past one-month hydrogen leak was observed in unit-1 Generator. Initially 4 no of cylinder per day consumed instead of 3 no of cylinders per day. On 01 Jun 2024, 8 no of cylinders consumed within 12hrs to maintain hydrogen pressure in the generator, so it was decided to shut down the unit and take the work.so on 15:00:00 hrs unit was hand tripped to attend generator hydrogen leak.

9. Root cause :

There are four hydrogen coolers in the generator to cool the hydrogen. Hydrogen is cooled by TG-DMCW system. The gas cooler tube leak caused Hydrogen to escape through TG-DMCW system. Through vents in DMCW system hydrogen trace were detected.

10. Remedial measures taken/to be taken:

Hydrogen coolers were removed and punctured tube was plugged and hydro test conducted in all the coolers, ensured that no other leak is present. After placing hydrogen cooler Air tightness test done for 12hrs.

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

Light Up: : 05:32 Hrs on 10/06/2024

Sync'd: : 10:37 Hrs on 10/06/2024

12. Delay for light up : nil

13. Recommendation / Action plan :

i) Gas coolers to be removed and checked once in between two major overhauls.

14. Any specific learning / feedback : nil

EE/EEMG

EE / OS

05.07.24

DCE / C&I

ACM /OS

CM/OS

Copy submitted to CEO / NTPL

Copy submitted to GM/O&M