



NLC TAMILNADU POWER LIMITED
DEPARTMENTAL PROCEDURE MANUAL
(Incorporating ISO 9001:2015, ISO 14001: 2015 & ISO 45001: 2018)
STANDARD OPERATING PROCEDURE

TITLE:- SOP FOR TG MOTORING

Doc. ID: NTPL/OPRN/SOP-30

Revision:02

Date: 25/10/2022

PURPOSE: To define TG Motoring Operation

SCOPE: This SOP is applicable at NTPL

RESPONSIBILITY: Shift Engineer / Operation Engineer

PERFORMANCE CRITERIA:

ACTIVITIES:

GCB Not Opening and TG runs as Synchronous Motor:

In the event of confirmation of Steam less regime operation of turbine, the following guidelines are to be followed:

- Confirm whether Trip Oil press is zero and HP / IP stop valves and control valves are closed
- Ensure AOP availability. In case, AOP doesn't start from desk, try starting it from the annex.
- Keep HP and LP bypass system in service. Stabilize boiler with the residual firing rate.
- Open all MAL and line drains

Observe and monitor the following parameters

- 1) HPT exhaust temperature
- 2) LPT exhaust hood temperature
- 3) Turbine metal temperatures
- 4) Condenser Vacuum
- 5) Differential Expansion of HP, IP and LP Turbine

Prepare the Governing System for admitting steam into the Turbine

- 1) Isolate EHC at local by closing the HP & IP Cut-Out valves at the governing rack.
- 2) Switch off Turbine trip SOV relays (A101 and A 201) to facilitate turbine resetting.
- 3) Reset the Turbine through Start up Device and Open all the four Stop valves.
- 4) On observing Exhaust / metal temperature rise, open HP & IP control valves a little to admit steam into Turbine and regulate the steam flow such that *metal temp rise is contained*.



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- Closely monitor the HP/IP Exhaust and Turbine Metal temperatures till the Generator breaker is opened.
- Immediately after opening the Generator breaker *TRIP* the Turbine either from local or by Switching on A 101 and A 201. Carryout the normal shutdown operations.

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