



# NLC TAMILNADU POWER LIMITED

## DEPARTMENTAL PROCEDURE MANUAL

### STANDARD OPERATING PROCEDURE

**TITLE: SOP FOR CONDENSER VACUUM KILLING**

**Doc. ID: NTPL/OPRN/SOP-12**

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**PURPOSE:** Define a procedure of Condenser Vacuum killing .

**SCOPE:** This SOP is applicable at NTPL

**RESPONSIBILITY:** Shift Engineer / Operation Engineer

**PERFORMANCE CRITERIA:**

#### ACTIVITIES:

1. Ensure at least one CEP in service.
2. Ensure main turbine is on STG
3. Manually Close the HP Bypass Valves (BP1 and BP2) fully and kill the HRH pressure by opening the LP Bypass valves.
4. After ensuring nil pressure in the HRH line, close the LP Bypass valves and open RH vents and Drains.
5. Close all drain valves connected to LP, HP and Steam Drain Flash tank.
6. Stop the Vacuum pump and Recirculation pump.
7. When the vacuum in the condenser comes to 0.8 ksc (abs) pressure, cut off seal steam for main turbine as well as both TDBFP and close the seal steam supply valve and slightly open the leak off control valve at 8.5ML. Close the manual root valve before MOV (MAW10AA010-isolation before Main Turbine seal steam control valve) and close root valve for individual TDBFP at 8.5ML and close seal steam common isolating valve ASV-67 for main turbine and manual isolation for TDBFP at APRDS.
8. Open the vacuum breaker valve at Condenser pressure 0.9 ksc abs (Hydraulic operated valve).
9. After isolating the seal steam supply and the header pressure drops to 0 ksc, stop the Gland steam exhaust fan.
10. One out of two CW pumps can be stop by closing one condenser CW outlet valve to minimum just to insure the flow and maintaining minimum discharge pressure at CW pump house.
11. Note down turbine speed at STG before and after vacuum killing.

#### RECORDS:

Record Title	Record No.	Location	Responsibility	Retention Time
NTPL/OPRN/R-01		CCR	Operation Div.	3 Years

#### VERIFICATION, CORRECTIVE AND PREVENTIVE ACTION:

HOD shall ensure adequacy and implementation of the above procedure through periodic interaction with department personnel, and regular review and monitoring of the processes and compliances. In case of any observed deviation, corrective and preventive action shall be immediately undertaken.

**HOD**