PURPOSE: To define SOP for Both CW Pumps tripped emergency

SCOPE: This SOP is applicable at NTPL

RESPONSIBILITY: Shift Engineer / Operation Engineer

The following SOP is to avoid Rupture of LP Turbine and TDBFP diaphragms. When both CW pumps get tripped, there is no cooling media for the condenser to condense the LP turbine exhaust steam. In that case the incoming steam from LPT will increase the condenser pressure, which will ultimately lead to rupture of LP Turbine and TDBFP Exhaust diaphragm. Condenser pressure high trip protection for turbine trip is given at 0.3 Ksc and Protection close for HP/LP Bypass is given at 0.6 ksc. Closing of HP/LP BP will initiate RH protection and Boiler will trip.

ACTIVITIES:

If both CW pumps get tripped while Unit is running, and Standby CW pump is also not coming into service and after one attempt also CW pumps couldn't be started, the following procedure is to be followed-

1. Trip the Boiler
2. Once turbine trips, HPBP fast open command will go, immediately take to manual and close HP-LP Bypass
3. Close MSV 1 & 2 and its Bypass, in case HPBP is not closing.
4. Trip both TDBFP and close its Exhaust valve to condenser and cut off the seal steam.
5. Open vacuum breaker and kill the condenser vacuum.
6. Cut out the steam to seal to main Turbine and TDBFP and isolate it from PRDS by closing root valve.
7. Close all drains to condenser and flash tank.
8. Take ACW interconnection for TGDMCW PHE from running unit for equipment cooling.
9. For Instrument and Service Air Compressor(IAC/SAC) cooling, change over DMCW source to running unit if necessary.