PURPOSE: To define Control of abnormal MST deviations

SCOPE: This SOP is applicable at NTPL

RESPONSIBILITY: Shift Engineer / Operation Engineer

PERFORMANCE CRITERIA:

ACTIVITIES:

MS Temperature Dropping Fast:

- Check for *increase in Spray flow* due to any malfunctioning of control valve. If in auto, take into manual mode and close all spray valves. If needed isolate manual valves too at local to avoid any passing in the valves.
- Increase the *burner Tilt* upwards, if there is any heavy reduction in firing rate.
- A *reduction in operating pressure* due to sudden opening of Turbine Control Valves, fast rise in load, opening of HPBP or sudden fall in firing rate etc. Appropriate action may be taken to reinstate the operating pressure.
- *Tripping of any higher elevation mill*. Load may be lowered as required to support MS pressure. Once situation is under control, reserve mills can be started. Suitable measures may be taken if there is any proportional increase in the *ratio of High GCV* Coal fired.
- Sudden or huge *drop in Air Flow* will lead to lower pick up in convective zones. Restore air flow, keeping O_2 in view.
- Higher than the designed *Feed Water Temperature*, internally *fouled SH tubes*, Excessive *water carry over from the drum* are some among other factors which result in a lower MS temperature.

MS Temperature Rising Fast:

- Check for decrease in *Spray flow* due to any malfunctioning of control valve. If in auto, take into manual mode and open spray valves. Check at local for closure of any valves and normalize.
- Reduce the *Burner Tilt* further, if there is any sudden rise in firing rate.
- An increase in *Operating Pressure* due to sudden closing of Turbine Control Valves, fast drop in load, closing of HPBP or sudden rise in firing rate etc. Appropriate action may be taken to reinstate the operating pressure.

- Starting of any *Higher Elevation Mill*. Load may be raised as required to support MS pressure. Once situation is under control, normalization can be done. Suitable measures may be taken if there is any proportional decrease in the ratio of High GCV Coal fired.
- Sudden or huge rise in *Air Flow* will lead to higher pick up in convective zones. Reduce excess air flow, keeping O_2 in view.
- *Low Feed Water Temperature* and *Furnace Slagging* are some among other factors which result in a higher MS temperature.

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