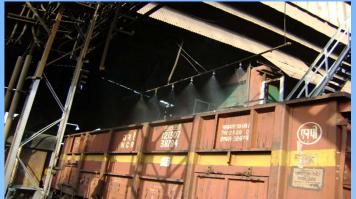
## .HMC. WAGON TIPPLER PLAIN WATER DUST SUPPRESSION SYSTEM

.hmc. Plain Water WAGON TIPPLER DS system is a plain water mist type Dust Suppression system. (Application) Wagon Tippler (coal) normally installed near the entrance to the unloading hopper.

## **Principle of Operation:**

The pump is to be activated manually (optional auto system if required) spray will activate automatically once the wagon tippling action starts in the WT-MCC.



<u>Pre-Wetting DS System – Waiting Wagons</u> The Fogging type spray nozzle fitted on the entrance of the receiving pit area will spray to moisten the top layer at the wagon.



The WT Spraying actuation shall be controlled from MCC by pushing the LPBS switch to energize the normally closed solenoid valve. The Spraying will be started / stopped through Solenoid Valve mounted on the Solenoid Boxes for each header. Specific solenoid valves will get energized based on the WT movement and will get de-energized through a pre-set timer (adjustable). The system shall be suitably interlocked by solenoid box with the wagon tippler mechanism so that the spraying time should be throughout the complete operation of tippling. Total suppression system shall act in such a way that the water curtain shall cover the entire periphery of the hopper.

Further in order to form a water curtain around the entire periphery specially designed misting nozzle shall be installed & activated at the same time with an horizontal multistage water pump (nozzle discharge 1.00 to 5.00 lpm @ 3-10 bar pressure)

Dust generating points will be properly placed with spray headers and nozzles which produce fine mist sprays. The Air borne dust oncoming in contact with the fine mist type water particle, which becomes heavy and settle down with the original material flow.



No Ro quality treated water required for PWDS system as the nozzles is fitted inside the protective cover having inbuilt filter to prevent nozzle from chocking.

COMPLETE SYSTEM CONSISTING OF ELECTRICAL ACTUATOR / SPRAY HEADER / PWDS NOZZLE / FILTER / BALL VALVE / WATER PUMP / MCC PANEL / gi PIPES & REQUIRED INSTRUMENTS.



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