



MECHANICAL

Issue No. 01	Rev. No: 02	Effective Date: 17.10.2017	SOP/MEC/015
Issued By: M.R		Approved By: HOD-Mechanical	

COOLER WATERSPRAY NOZZLE CLEANING

Scope: To clean cooler water spray nozzle

Responsibility: Engineer/SH

PPE:

1. Safety helmet
2. Safety shoe
3. Mask
4. Safety goggles
5. Gloves

TOOLS:

1. Screw driver
2. spanner set
3. Pipe Wrench
4. Bench Vice

Hazard Analysis:

Risks associated:

Excessive temperature of water

Excess Pressure

Material and hot gas puffing

Mitigating Measures

Close the inlet valve

Release pressure disconnect the line.

Maintaining draft

- a. Attain Confined space work permit.
- b. Close the relative valves(LOTO)
- c. Close the air line for the water injection line.
- d. Release pressure by opening the safety valve
- e. Remove water hose from nozzle lance
- f. Loose all the wedges of the spray.
- g. While removing the water spray nozzle lances draft to be maintained, because hot dust may puff outside.
- h. Connect the water line hose to the spray and open the valve for the flow checking.
- i. Check for the water flow from nozzle and check for the cracks in the nozzle.
- j. If the flow is less the open the nozzle by bench vice.
- k. Clean the nozzle and soak it is acid for 30 minutes.
- l. Clean it and fit it to the spray and check for the water flow.
- m. Similarly do it for remaining water spray nozzle also.



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Emergency Shut- off:

1. If any injury takes place, provide First aid and inform to the Safety department or Call Emergency number 3108/9865152222

Records/Annexure:

JSA is enclosed.

JOB SAFETY ANALYSIS :(JSA)

Job Safety Analysis		Job: Cooler water spray nozzle cleaning	Date: 01 – 06 - 2012	Analysis by Section Engineer	Reviewed by: Section Head
Title of employee doing job : Section engineer		Supervisor: Section Engineer	Department: Mechanical	Section:	Approved by: HOD-Mechanical
Reqd./recommended PPE's : Safety Helmet, Safet shoe, Hand Gloves, Safety goggles. Nose mask.					
Sl. No	Sequence of Basic Job Steps	Potential Hazards	Recommended Safe Job Procedure	What could go wrong	Corrective action
1	Close the water line	Injury in hand	Use proper PPE	Injury by slip of tools	Allot trained workers to close the inlet valve
2	Release pressure by opening the safety valve	Blow out of pressure	Know the direction release	Sudden release of water	stan
3	Remove water hose from nozzle lance	Blow out of pressure	Ensure closing of inlet valve & opening of safety valve	Blow out of pressure	Use crow bars for opening
4	Loose all the wedges of the spray nozzle lancer.	Injury in hand	Use proper PPE	Injury by slip of tools	Allot trained workers
5	Remove the water spray nozzle lances.	Burn injury	Draft to be maintained. Use proper PPE	Hot dust may puff outside.	Allot trained workers
6	Keep the dummy plate by locking with wedges.	Injury in hand	Use proper PPE	Injury by slip of tools	Allot trained workers
7	Connect the water line hose to the spray and open the valve for nozzle spray.	Eye/body injury	Ensure other persons not in opposite to the nozzle spray.	Hit of pressurized water.	Open valve slowly.



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SL No	Activity			Isolation Matrix For Cooler						
				Isolation Type						
				Electrical Energy				Other Energy		
4	Cooler Water Nozzle Cleaning	<i>Name and Tag for the Equipment</i>	<i>Isolate the SOLENOID vale</i>					<i>Isolate the Water valve & Empty the same</i>	<i>Isolate the Air Valve & Empty out the same.</i>	