



DALMIA CEMENT (B) LIMITED – Ariyalur

MECHANICAL

Issue No. 02	Rev. No: 01	Effective Date: 02.09.2023	SOP/MEC/137
Issued By: M.R		Approved By: HOD MECHANICAL	
SOP FOR STP PLANT			

Scope: To produce treated water from sewage water.

Responsibility: Engineer

Accountability: Section Head

PPE:

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

TOOLS:

1. spanner set

Hazard Analysis:

Risks associated:

Fall from height,

Mitigating Measures

Use of safety harness

Procedure:

1. Switch on the sewage pump in all location one by one if the sewage tank gets low level the pump automatically stopped
2. Sewage water from all the area collected on collection tank at STP
3. Switch on the collection tank pump so that waste water from collection tank pumped to Aeration tank. Note: Air blower should be running 24 x 7.
4. Now the sewage water mixed with Aeration tank water so that the MLSS will maintain from 250 to 350 mg/L
5. If the high level reached on the Aeration tank water will flow to clarifier tank
6. Clarifier tank having Return sludge pump it should run before 30 minutes starting collection water pump.
7. If the high level reached on the Clarifier tank water will flow to filter feed tank.
8. After water reached filter feed tank switch on the filter feed pump so that water will go to pressure sand filter(PSF)



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9. Before running the pressure sand filter and Activated carbon filter(ACF) it should be back washed 30 minutes one by one.
10. For back wash turn the valve to back wash position
11. After back wash turn the valve to filter position then water enters into PSF to ACF.
12. Maintain 0.2 bar pressure on PSF by using pressure control valve located at filter feed pump.
13. Then the water from ACF enters into UV lamp container before that ensure that UV light should be switched on.
14. Through the UV lamp container we will get Treated water. It is collected on Treated water tank.
15. From the Treated water tank water circulated all over the plant.

Emergency / Emergency Shut OFF:

1. If any injury takes place, provide First aid and inform to the Safety department or Call Emergency number 3108/9865152222.
2. Annexure:
3. JSA is enclosed below / Isolation Matrix

SL N O	Activity	Isolation Matrix for Utility & General Equipment.			
		Isolation Type			
				Electrical Energy	Other Energy

Maintenance of Water Pump	Name and Tag for the Equipment	Drive for the PUMP					Close, Drain & put LOTO for all the inlet & outlet valves	Priming Line		
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4. JOB SAFETY ANALYSIS :(JSA)

Job Safety Analysis		Job: Cooler water spray nozzle cleaning	Date: 02.09.2023	Analysis by: Section Engineer	Reviewed by: Section Head
Title of employee doing job : Water Pump Maintenance.		Supervisor: Section Engineer	Department: Mechanical	Section: Utility	Approved by: HOD Mech.
Reqd./recommended PPE's : Safety Helmet, Safety 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	Drain The water in the lines	Slippery	Use Gum Shoes during working at water	Water pressure	Drain slowly.
2	Pump & Motor handling	Injury during handling the Equipment	Use proper tools & Lifting tackles	Failure of lifting tackles	Check thoroughly once again just before use also