



DALMIA CEMENT (B) LIMITED



ARIYALUR

MECHANICAL

Issue No. 01	Rev. No: 00	Effective Date: 01-11-2019	SOP/MECH/200
Issued By: M.R		Approved By: HOD (Mech)	
SOP-JSA FOR STP COLLECTION TANK PUMP JAM CLEARING			

Scope : This SOP is applicable to Safe working for STP COLLECTION TANK PUMP JAM CLEARING .

Responsibility : **Section Engineer – Mech.**

Accountability : **Section Manager – Mech.**

PPE:

1. Helmet.
2. Safety shoe.
3. Ear plug.
4. Safety goggles.
5. Rubber hand gloves.
6. Hand Gloves.
7. Nose mask.

Tools:

1. Box Spanner set.
2. Ring Spanner set.
3. Nylon rope.
4. Waste cloth.



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Hazards:

Risks associated

Electrical shock

Pressurized water release/

Rotating parts.

Fall of objects

Slip and fall

Mitigating Measures

1.Safe and tested tools and tackles

2. on job training

3. LOTO for motor.

1. Mechanical LOTO for inlet and outlet valves.

2. Safe pressure release on pipeline.

1. Usage of certified lifting tools.

1.Proper supports while lifting the pump.

Training needs:

1. Fire fighting.
2. Emergency preparedness.
3. Electrical prevention training.
4. Assembly procedure.
5. Safe work near running equipment's.

Procedure:



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1. Take the LOTO for motor and outlet valves.
2. The LOTO and permit paper should be with the person who is working in the site.
3. Release the pressure o the pipe line.
4. Remove the outlet pipeline.
5. Lift the pump by rope from the collection sump.
6. Check the impeller casing cover for jam.
7. If it jams means clean it by removing the casing cover and close it.
8. Check the NRV for chocking.
9. If NRV is chocked clean it by removing and close it if cleaned
10. Replace the pump to the collection sump.
11. Re fix the pipe line.



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12. Clear the electrical and mechanical LOTO.

13. Take the trial check the current and leak on pipeline.

Emergency / Emergency Shut OFF:

1. If body injury is there, First aid will be given and inform to the Safety department or Call Emergency number 3108/ 9865152222

Records/Annexure:

1. JSA is enclosed below.
2. Isolation Matrix.

JOB SAFETY ANALYSIS :(JSA)



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Job Safety Analysis	Job: COLLECTION WATER PUMP JAM CLEARING	Date: 04- 05 - 2020	Analysis by: Section Engineer	Reviewed by: Section Head
Title of employee doing job: Section Engineer	Supervisor: Section Engineer	Department: Mech.	Section: UTILITY	Approved by: HOD Mechanical
Req'd/recommended PPE: Safety helmet, Safety shoe, Safety goggles, Ear plug, nose mask & Rubber hand Gloves.				
Sequence of Basic Job Steps	Potential Hazards	Recommended Safe Job Procedure	What Could Go Wrong	Corrective Action
Valve operation	Hand injury / Fatal	Closed the out let valve and open the drain (manual) valve	System will be pressure raised it will blasting the system	Ensure valve condition before start the work
Rotating parts	Major injury/Fatal	Locking of shaft	Rotation may cause hand injury Tools will be slip	Mechanical locking on shaft.
Electric shocking	Electrical shock	Electrical LOTO	Electrocution may occur	Electrical LOTO has to be ensured.
Lifting and re fixing of pump	Slip and fall	Proper fixing of rope and supports	May be a slip nad fall	Certification of lifting tools and tackles.



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Isolation Matrix:

SL No	Activity			Isolation Matrix for Utility & General Equipment.									
				Isolation Type									
				Electrical Energy					Other Energy				
1	STP COLLECTION WATER PUMP JAM CLEARING		Collection water pumps	Isolate the Related other energy isolation						Isolate or closed the valves			