**WORK INSTRUCTIONS FOR LIME SOLUTION TRANSFER PUMP**

**Responsibility**: PCM/ Bag House In charge.

**Identified Hazards:**

1. Fall of a person in tanks
2. Injuries due to falling of person
3. Contact with lime solution
4. Nonuse of PPE
5. Improper house keeping
6. Inadequate local lighting
7. Injuries due to fall
8. Electric shock
9. Impact of moving machinery
10. Entanglement of suction hose

**Significant aspect:**

Lime spillages,

Depletion of natural resources

**Procedure:**

1. Unauthorized operation or repair of any equipment is a punishable offence
2. Ensure that all personnel involved in the activity (Including contractor workmen) are trained in safe working procedures.
3. Personnel working in the area (Lime Handling) must wear safety goggle, safety helmet, and safety shoes while working.
4. Pump should be safely handled/ transported by two persons on four-wheel trolley along with drum provided for flushing the pump with plain water after use. Enter username in the register provided.
5. Stop the stirrer of both the tank the one to be made empty and other one to be made full, keep the push button pressed.
6. Empty primary tank (lime pump side) with the help of inbuilt lime pump and transfer the lime solution to other lime tank through conical tank, clean the empty tank manually by flushing it with jets of water.
7. Before first use of lime solution transfer pump PCM in-charge should ensure that priming of pump is done by adding water in priming inlet.
8. PCM in charge should ensure that water is coming out from suction hose pipe to avoid dry running of pump.
9. Connect power cable of pump to the nearest supply outlet (welding outlet to be used), Ensure rotation of pump in the direction of indicator marked on the pump by inching the motor.
10. Dip suction hose pipe in the tank to be made empty.
11. Put discharge end hose pipe in the primary tank (Tank to be made full).
12. Start the pump, Suction pipe to be lowered as level of tank drops, if slurry is thick, dilute the slurry by stirring with lancing pipe and some water, reuse maximum solution to other tank.
13. Monitor level of suction tank to avoid dry running of the pump. (Generally, it takes around 20-30 minutes for the full tank to get empty about 800 liters)
14. Stop the pump before it starts running dry. Add more water if pump stops sucking slurry.
15. Do not put suction pipe at extreme bottom of tank to avoid suction of metal chips.
16. Once pump job is over, flush the pump by pumping fresh water from the drum (Drum to be filled with fresh water and suction hose to be dipped in the drum.)
17. Remove power cable, wind and keep the pump at designated location.
18. Enter in the register amount of lime solution reused on particular tank.
19. Do not wet the pump.

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| **Prepared By:**  Head – Production PID I | **Reviewed & Issued By:**  Management Representative | **Approved By:**  Head – Pig Iron Division |
| **Signature:** | **Signature:** | **Signature:** |
| **Date: 10.07.2023** | **Date: 10.07.2023** | **Date: 10.07.2023** |

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| 15.07.2022 | Work instructions for lime solution transfer pump | Change in format | 04 |
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