**WORK INSTRUCTION FOR TANKER PUMP OPERATION**

Responsibility: General Shift Engineer

**Identified Hazards**

* Noise Generation
* Trapping between two objects
* High pressure water discharge,
* Electrical shock.
* Fire & explosion
* Skidding due to poor house keeping
* Failure of brake of tanker
* Vehicle Emission

**Aspect for the Activity :**

* Water Consumption
* Resource depletion (Electrical Energy)
* Oil leakage’s
* Generation of graphite/ lime dust.

1. **Procedure for Pump loading/Unloading on tanker**

1. Use all PPEs ear plugs, heat resistant hand gloves, dust mask and other  required safety appliances during tanker pump operation
2. Approximate of the pump assembly is 100 kg with electrical motor. Three persons minimum require for the loading of the pump on the tanker.
3. While loading the pump care should be taken to avoid the trapping of the figure or other body parts. – Use require PPE’s
4. Once the pump is loaded on the tanker connect the union to the tanker pipeline.
5. Physically check the condition of the hose, electrical cable for any damage.
6. Open the suction valve of the pump and check the leakage thought he pump and pipeline fittings.
7. Take the initial trail of the pump if any problem observes bring the same immediately to the notice of the Engineer in charge
8. After completion of the job take out the pump from the tanker after taking all safety measures.

**Operation Procedure**

1. Use all PPE, s , ear plugs , heat resistant hand gloves, dust mask and other  required safety appliances during tanker pump operation
2. Park the tanker at the specific location were cleaning to be done
3. Apply the stopper to the Tanker and ensure the hand brake are applied
4. Tanker use for the cleaning should meet the entire basic RTO requirement for the vehicle and also Driver should follow all the traffic rules inside the plant.
5. For starting the pump first open the suction valve of the pump. And start the pump one person should always stand at the main point of the socket for emergency stoppage.
6. Carry out the cleaning operation.
7. Pump has been provided with RCCB which cut of the supply in case of the leakage but if the main wire line got cut there is the possibility of shock so due care to be taken to keep the main wire in good condition. Any damage should be immediately brought to the notice of the electrical.
8. After completing the job hang the main wire cable and hose properly on the tanker to avoid the fall of the same during vehicle movement.
9. Unload the pump from the tanker in mechanical workshop at designated point.

**DO NOT**

* Allow water to fall on the motor of the pump
* Always Park the vehicle with stopper & hand brake applied
* Do not stand nearby to the tank in the rear side.

**SAFETY AND ENVIRONMENT.**

* Use all PPEs, Ear plugs , Heat resistant hand gloves, Dust mask and other  required safety appliances during Operation and maintenance High Pressure Pump
* To reduce risk of injury, close supervision is necessary. Only trained persons are allowed to work on machine.
* Do not operate machine on unbalanced surfaces.
* Never direct the jet at persons/ animals / electrical appliances or machine itself.
* High pressure water jet causes a recoil effect on the gun (pistol).
* While operating use protective clothing, goggles and rubber slip proof boots.
* Persons should be alert and trained for starting, stopping, bleeding and regulating pump pressure quickly.
* Barricade the operating area with work in progress tape.
* To prevent from fire hazards, do not use with or near inflammable material such as gasoline grain dust, solvents, and thinners.
* Pump must be properly installed and earthed to avoid Electrocution.
* To avoid ejection injury, do not direct high pressure water jet on persons.
* During Oil Fire, and Major accident refer procedure laid in **SP 42**
* Use DCP/CO2 Type fire Extinguishers for Electrical fire and foam type Fire Extinguisher for Oil fire.
* Whenever oil spillage occurs, clean the area with the help of cotton cloth, cotton waste same to be disposed at appropriate locations in PP area.
* Waste generated is segregated and stored in containers provided at appropriate location and same is disposed as per the procedure laid in **SP 44**
* Wastewater generated is diverted into the thickener for reuse in the gas cleaning system.

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

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