**TANK TRUNK CHEMICALRECEIPT AND UNLOADING PROCESS SOP**

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**UGEE CHEMICALS LIMITED**

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**1.0 PURPOSE**

This SOP outlines a sequence of steps to follow before receiving and unloading chemicals from trucks into bulk storage tanks in the F&HC Tank farm area.

**2.0 SCOPE**

The scope of this SOP is limited to the receipt and unloading of Sodium hydroxide (caustic) and HLAS into bulk storage tanks for caustic and HLAS respectively**.**

**3.0 TERMS & DEFINITIONS**

1. **CHEMICAL: Chemical in the context of this SOP is defined as Caustic Soda or HLAS.**

**4.0 RESPONSIBILITY & AUTHORITY**

The following positions are generally involved in the process of tank trunk chemical receipt and unloading operations.

|  |  |  |
| --- | --- | --- |
| No. | Position | Description of Responsibility |
| 1. | MU Leader | Trigger the need for replenishment of the stocks in the tank |
| 2. | Tank Farm Operator/ Contractor | Responsible for the unloading process |
| 3. | QC Lab Analyst | Takes samples and analyses the chemical |
| 4. | Weighbridge Operator | Inspects the truck, fills all required checklists and weighs the truck in and out |

5.0 **POTENTIAL RISK**

* Raw material mix up in tank
* Possible leak from the truck
* Sudden movement/tilting of the truck
* Truck blocking gangway
* Fall
* Skin contact with chemical material
* Chemical Splash
* Hand bruise

**6.0 PERSONAL PROTECTIVE EQUIPMENT (PPE) REQUIRED**

* Safety goggle
* Latex hand gloves
* Safety Shoes
* Chemical hand gloves
* Coverall

**7.0 DESCRIPTION OF ACTIVITIES**

**7.1 MU LEADER**

Check inventory of the chemicals at every shutdown and trigger the need for replenishment of the stocks in the tank based on the volume forecast for the week to ensure we have a *minimum* of 2 days safety stock (excluding dead stock) for these materials at the end of every week. The dead stock of this material is shown below:

|  |  |
| --- | --- |
| Material | Dead stock quantity |
| HLAS | 9,405 |
| Caustic | 5700 |

**7.2 TANK FARM OPERATOR**

1. Upon arrival of the chemical truck at the gate, fill all required checklists, inspect the truck.
2. If truck passes checklist, weigh the truck on the weigh bridge following the weigh bridge Job aid (MSG Jobaid-021.0) and lead the truck to the tank farm. If the truck does not pass the checklist, inform the material SPOC to decide on criticality and next steps.
3. Direct chemical truck to position opposite the unloading pump meant for the specific chemical. While the chemical tank truck maneuvers to this position, stay at a minimum of 2 meters away from the maneuvering truck and ensure that the driver is always directed by the motor boy. Ensure that the truck wheels are chocked immediately the truck is positioned.
4. Ascend the top of the truck platform with your body harness attached to the life line or use the mobile step ladder with your body harness attached to the life line. Use both hands to grip the stairs handle of the ladder while ascending the top of the truck platform.
5. Verify by inspection, the integrity of the seals on the manhole at the top of the tank truck and at the discharge end by the side of the truck, to ascertain the seals are not damaged, also compare the seal number with the number printed on the waybill. Trucks with damaged seals and/or inconsistent seal numbers should not be received. This should be escalated immediately to the material SPOC.
6. Descend truck platform or step ladder, grip with both hands the handle of the stairs while descending. Disengage your body harness from the life line.
7. Inform the QA analyst on duty of the arrival of the truck by taking the COA to the lab and ensuring the analyst collects sample(s).
8. Wearing all required PPEs (goggles, safety boots, and gloves), ascend the top of the truck platform following the steps highlighted in item 4 above, to open the manholes and remove the seals, descend using the step highlighted in item 6 above. Remove seal from the tank truck discharge. The tank truck discharge valve should be closed.
9. Wearing all required PPEs (goggles, safety boots, gloves and coverall), connect chemical resistant hose to the tank truck discharge by locking the connectors firmly together, check that the right hose is connected to the discharge valve according to the specified material
10. Open the Manual valve to the pump suction. Wearing all required PPEs (goggles, safety boots, and gloves), open the tank truck discharge valve, and confirm tank truck manhole is still opened.
11. Takes initial reading of the material unloading flowmeter
12. Start unloading pump. Confirm mass flow meter reading is increasing. Confirm bulk storage tank is not leaking.
13. Stop unloading pump when tank compartment is empty.
14. Close valve to the pump suction.
15. Wearing all required PPE’s (goggles, safety boots, gloves and coverall), disconnect chemical resistant hose from the tank truck and hang hose on the hose support beam.
16. Close tank truck manhole by following Steps 4& 6 above.
17. And takes final reading of the material flowmeter.
18. Ensure the truck balloon is used to raise the truck one hour to the end of the offloading. This will allow the complete draining of the truck.

**7.3 WH MATERIAL RECEIVING TECHNICIAN**

1. Upon notification of material arrival and completion of the truck inspection by the Tank Farm Operator, He weighs in the material truck.
2. After unloading is completed at the tank farm, he weighs out the empty material truck.
3. If the difference between the quantity On the supplier waybill and weigh-bridge ticket is not more than 0.3% of the total quantity, He will Gr the quantity on the weigh-bridge ticket.
4. When the shortage is more than 0.3%, He will Gr the quantity on the weigh-bridge ticket plus 0.3% of the total quantity.

**7.4 QA ANALYST**

1. The QA analyst on duty takes samples of the material at the tank farm for Lab analysis.
2. Evaluate the results with the COA for the batch of material supplied.
3. The QA Analyst declares the result of the analysis by calling the tank farm operator to commence offloading or by calling the material SPOC if the analysis failed.

8.0 **RELATED DOCUMENTS & RECORDS**

- Training & Qualification

- Model Answers

9.0 **REFERENCES & ATTACHMENTS**

- Not Applicable.

**Appendix 1**

* Not Applicable.

**Document History**

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| Date | Description of change | Reviewed by | Version No. |
| 30th Mar. 2025 | First issue of document. | Operations Manager | 1.0 |
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