

TANK CLEANING REPORT

VANA ENERGY

(TK 104)

TEMA

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Introduction

Bidi Group Ltd was contracted to undertake tank cleaning at VANA Energy. A Description of the tank is below;

Name of Client: VANA ENERGY LTD

Location: Tema

Tank Assigned: Tank 104 (Floating Roof Tank)

Tank Capacity: 8,590m³

Tank Height: 20 m

Tank Diameter: 25.5 m

Product: PMS

No. of Bidi Group Personnel: Eleven (11)

Duration: 5 Days (Monday 22nd June – Friday 26th June, 2020)

List of Bidi Group Personnel Deployed

HSE Officer & First Aider 1. Nana K.A. Fosu-Gyeabour 2. Franklin Tuffour Tank Cleaning Officer 3. Richard Darko Tank Cleaning Officer 4. David Noble Tank Cleaning Officer 5. Yaw Marfo Tank Cleaning Officer 6. Godsway Tsikudo Tank Cleaning Officer 7. Eric Baah Tank Cleaning Officer 8. Emmanuel Asonor Tank Cleaning Officer 9. Yussif Haruna Tank Cleaning Officer 10. Sumaila Agudah Tank Cleaning Officer 11. Yaw Felix Aglago Tank Cleaning Officer

Others

1. Stn O. I Ebenezer Narh - Ghana National Fire Service

Pre-Cleaning Inspection Observation:

The bottom of the tank was covered by sludge, water and metallic scales. The walls and supporting braces and pistons had some rusted portions. Also there were hydrocarbon fumes present in the tank.

Work Procedure

During the five (5) day work duration, the following procedure were adopted;

Day One: Monday 22/6/2020

- Bidi Group personnel arrived at the cleaning site and underwent a toolbox meeting on Ergonomics.
- A General Work Permit and Confined Space Entry Permit was issued to begin work.
- The work area was set up. (Caution tapes and Cones, together with safety signage were appropriately placed, etc)
- Gas testing was conducted before tank entry.
- The Tank Cleaning Technicians, begun the pumping out of effluent from TK 104.

Day 2: Tuesday 23/6/2020

- A toolbox meeting on Respirators was conducted.
- The team continued the manual evacuation of water and sludge from tank into standby IBCs and drums

Day 3: Wednesday 24/6/2020

- Cardio Pulmonary Resuscitation (CPR) was discussed at the toolbox meeting among Bidi
 Group personnel, VANA ENERGY Personnel and an Officer from Ghana National Fire
 Service. It was conducted by Stn O. I Ebenezer Narh of the Ghana National Fire Service.
- After gas testing, the technicians continued with the manual evacuation of sludge and metallic scales from the tank, till close of work on that day, where the tank was deprived of all solid effluent.

Day 4: Thursday 25/6/2020

- A toolbox meeting among Bidi Group personnel, VANA ENERGY Personnel and an Officer from Ghana National Fire Service. The topic under discussion was; Methods of Rescue Evacuation. It was conducted by Stn O. I Ebenezer Narh of the Ghana National Fire Service.
- A mixture of high-pressure water and degreaser was introduced into the tank.
- Scrubbing of the bottom plate, shells and supporting pistons begun. This was accompanied by the evacuation of the resulting effluent from the tank.

Day 5: Friday 26/6/2020

- The final Confined Space Entry permit was issued.
- A toolbox meeting among Bidi Group personnel, VANA ENERGY Personnel and an Officer from Ghana National Fire Service was held. The topic discussed was: Methods of Evacuation, Factors to consider. It was conducted by Stn O. I Ebenezer Narh of the Ghana National Fire Service.
- The final mopping of the tank walls, the floating roof support, and the bottom plate began, to rid tank of remaining sludge, water and degreaser, till desired the desired result was achieved.
- Upon completion of work in the tank, the immediate surrounding of TK 104 was tidied up
- Officials from VANA ENERGY, together with the Fire Officers and personnel from Bidi Group were called to undertake an inspection of the tank cleaning done for TK 104.
- After final approval, Bidi Group personnel demobilized from site.
- Work ended at 2:30 pm
- All necessary paperwork were signed and copies made available to both parties (Bidi Group and VANA ENERGY).

General Observations and Challenges

• The extent of help offered by the team at Vana Energy Ltd is very much appreciated (particularly the Safety and Maintenance Departments). In view of this, there was a smooth execution of work during our operation there.

Recommendations

 It is recommended that cleaning be done more regularly to eliminate excessive build-up of sludge

PPE & Other Safety Items Used:

- Respirators
- Overall Uniforms
- Reflective Vests
- Safety Gloves
- Safety Goggles
- Gas Detectors
- Hard hat (Helmet)
- Wellington Boots
- Safety Boots
- Explosion Proof Lamps
- Caution tapes and cones
- Safety signage

Equipment Deployed:

- Buckets
- Scrubbing brushes
- Mops
- Squeegees
- Shovels
- Intermediate Bulk Containers
- Tools Box
- Xp3 Multi-Purpose Degreaser
- Tarpaulin

Safety Statistics

- Injuries Recorded Zero (0)
- Fatalities Recorded Zero (0)
- Near Misses Zero (0)
- Spillage of Toxic Material to environment None
- Quantity of Sludge Collected for Treatment 22, 475 lts

Prepared by:

Nana K.A. Fosu-Gyeabour

HSE Officer - Bidi Group