

# **Report Name** : Inland Terminal Fuel Facilities - Site Visit Report

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# Definitions/Abbreviations

NEMA	National Environmental Management Act.	
OHS Act	Occupational Health & Safety Act	
NFPA	National Fire Protection Association	
SANS	South African National Standards	
API	American Petroleum Institute.	
AIA	Approved Inspection Authority	
MHI	Major Hazard Installation	
LDV	light duty vehicle	
ТРТ	Transnet Port Terminals	



# 1 Background

TPT Inland Terminals uses diesel to support its operations for export of dry bulk which includes chrome, coal, and manganese. The cargo handling equipment that uses diesel includes pay loaders and light duty vehicles (LDV's).

TPT also noted that the tanks do not have fuel management system in place to account for fuel usage. An audit was conducted across all the terminals from late 2019 to early 2020., of which the audit excluded the inland terminals. The audit focused on capacity adequacy and effectiveness of controls, emergency plans and the current condition of the fuel facilities.

Three inland terminals were visited, and critical issues were identified, and recommendations were provided accordingly.

## 2 Fuel Facility Assessment

A site visit was conducted across three (3) TPT inland terminals to assess the condition of the fuel facilities. Photographs of noteworthy or pertinent issues were taken, and some of them were used in this report to illustrate the challenges per each site visited. The purpose of the site visit was to establish the condition of the fuel facility and its associated equipment.

The sites visited are shown below in *Table 1 – TPT Inland Terminals*, which also indicates the location and the commodities handled by each terminal.

Terminal Name	Location (Province)	Responsible/Managed by	<b>Commodity Handled</b>
Pendoring	North West	Richards Bay Terminal	Chrome
Lohatla	Northern Cape	Port Elizabeth Terminal	Manganese
Kendal	Mpumalanga	Richards Bay Terminal	Coal

Table 1 – TPT Inland Terminals



### 2.1 Methodology

The assessment was primarily based on visual inspection of the fuel facilities. Discussions with the operational team onsite were also conducted to understand any existing challenges. Photographs were taken during site visit from each site and used in this report.

# 3 Findings and Recommendations

### 3.1 Pendoring Terminal

### 3.1.1 Findings

The following are findings;

- The terminal does not have a permanent fuel facility.
- The site is using a temporary mobile diesel bowser from external service provider.
- The fuel facility is managed and maintained by an external service provider.
- There is a soil contamination adjacent to the bowser caused by diesel spillage.
- No fire extinguisher on the diesel bowser or nearby vicinity.
- An elevated diesel steel tank shown below (Figure 1: Pendoring Terminal Temporary External Service Provider Fuel Facility) is not in use. The tank belongs to an external service provider that previously managed the facility, the tank to be taken off site.





Figure 1: Pendoring Terminal – Temporary External Service Provider Fuel Facility.

### 3.1.2 Recommendations

The following are recommendations;

- Conduct environmental assessment to ensure compliance
- Conduct risk assessment
- A permanent fuel facility that can be easily decommissioned (i.e., self-bunded tank with a concrete slab).

### 3.2 Lohatla Terminal

### 3.2.1 Findings

The following are the findings;

- There are two fuel facilities onsite with two diesel tanks.
- The containerised self-bund tank belongs to TPT and the skid-mounted tank belongs to an external service provider that previously managed the facility (*see below Figure 2 : Lohatla Fuel Facility*).
- The TPT containerised self-bund tank diesel pump is not working.
- Currently the operations are using external service provider fuel facility.
- There is no oil separator or drainage system at the facility to handle spillages.





Figure 2: Lohatla Fuel Facility

 1
 Focus Area

 1
 Focus Area

 Fuel Facility – External Service Provider

Summary of condition of the fuel facility during the site inspection on 29 February 2024, as illustrated by the following sample photographs below;









#### 3.2.2 Recommendations

- The containerised self-bund fuel storage tank and fuel pump requires urgent maintenance and repairs to bring it up to standard.
- Improve general housekeeping to minimise diesel spillages around and within the facility.
- It is recommended that new drainage infrastructure be installed to ensure environmental compliance.

#### 3.3 Kendal Terminal

#### 3.3.1 Kendal Findings

The following are findings;

- The terminal does not have a permanent fuel facility.
- The site is using a rental mobile diesel bowser (2000 litre capacity).
- The terminal has a high diesel run out risk exposure that is caused by limited tank capacity of 2000 litres that require regular diesel top-ups.
- The terminal is experiencing high fuel delivery frequency throughout the month, which is affecting the operations negatively because at times the supplier can't keep up with small volume deliveries.





Figure 3: Kendal Terminal – Rented mobile diesel bowser.

Summary of condition of the fuel facility during the site inspection on 01 March 2024, as illustrated by the following sample photographs below;







#### 3.3.2 Recommendation

• Install a permanent fuel facility (i.e., containerised self-bunded tank).



- For the interim solution, increase the size of the rented mobile bowser to at least 5000 litre capacity.
- Consider reusing the existing bund wall to place a suitable sized containerised self-bund tank.

# 4 Conclusion

From the site visits conducted across all the three (3) Inland Terminals fuel facilities, it is concluded that all the fuel facilities do not comply in various aspects in accordance with Occupational Health & Safety Act, SANS and NEMA.

The current condition of the inland terminal fuel facilities are in poor condition and pose a potential risk to the operations, as well as the health and safety of personnel. Therefore, it is recommended that the following should be carried out at each of the three inland terminal fuel facilities;

- Install permanent fuel facilities in terminals where they are using temporary rented mobile diesel bowsers.
- Mechanically perform condition assessment according to South African National Standards (SANS) and Approved Inspection Authority (AIA).
- Perform maintenance and critical repairs, obtain compliance certificates, and get the tank registered with the council and energy department.
- Ensure compliance to Occupational Health & Safety Act, SANS and NEMA across all the inland terminals.