

SCOPE OF WORK

Project Title:

Hopper Scales: Verifications and Upgrades

DOCUMENT APPROVAL

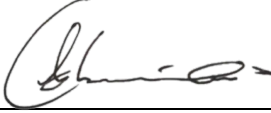



<i>Name</i>	<i>Title</i>	<i>Signature</i>	<i>Date</i>
<i>Compiled by:</i> Sandile Chaincomo	<i>Technical Supervisor</i>		05/05/202
<i>Reviewed by:</i> Lunga Luthuli	<i>Technical Manager</i>		05/05/2025
<i>Supported by:</i> Linamadla Busakwe	<i>Engineering Manager</i>		05/05/2025
<i>Approved by:</i> Sithembiso Nxasana	<i>Senior Engineering Manager</i>		06 May 2025

TABLE OF CONTENTS

1	BACKGROUND AND OVERVIEW	3
2	PROBLEM STATEMENT AND SOLUTION	3
3	ACCESS PERMITS.....	4
4	EQUIPMENT DETAILS:.....	8

1 BACKGROUND AND OVERVIEW

PORT OF DURBAN OPERATION

The Port of Durban, Maydon wharf Terminal is a critical entry and exit point for Grains and Woodchips imports and exports into and out of South Africa.

The Port of Durban's service offering provides superior volume flows, road infrastructure and rail connectivity, making the Durban Maydon Wharf terminals well located to handle increased volumes. The Agriport and Maydon Wharf Terminals has four 60-ton hopper scales and five 5-ton hopper scales.

2 PROBLEM STATEMENT AND SOLUTION

There are two 60-ton intake hopper scales that require repairs and verification and two hopper scales (1x 60-ton and 1x 5-ton hopper) require an upgrade as the indicators are obsolete. TPT requires the services of an approved verification body to conduct the following on the hopper scales:

Verification of the 2x 60-ton Hopper Scales

- Replace the power supply on the two 60-ton L336 Indicators
- Replace the serial communication cards on the indicators (RS232 and RS485/422 cards on both indicators)
- Test the operation of the two hopper scales
- Conduct verification on 1x 60ton weighbridge which will be used as a reference for the hopper scale verifications.
- Transnet will only provide the required cargo for the verification of the hopper scales. It is the duty of the service provider to provide the required verified test weights and Transnet will provide the required cargo. The supplier is to also provide the tipper truck that will be used to transport the weighed product to the reference weighbridge as per the verification procedure. Verification is to be conducted within 30 days of the verification date of the weighbridge to be used as a reference.
- Upon completion of the verifications, the service provider is required to provide verification reports with certificates for the scales.

Upgrade of 1x 60-ton and 1x 5-ton Hopper Scales

- Replace Scale indicators (details in Appendix) (to be replaced with a newer model offering market support for at least 10 years to follow)
- Repair each Scale Control panel and all related control equipment
- Repair top and bottom scale gates for both scales
- Replace gate Actuator motors on both scales (details in Appendix) with same or similar.
- Replace all electrical cabling and all other relevant field equipment.
- Apply for and obtain a type approval of the hopper scale arrangement from NRCS.
- Conduct a full verification of the 1x 5-ton hopper scale and the 1x 60-ton hopper scale.

Installation of UPS

- The supplier is required to replace the UPS for the scales with an adequately sized UPS for the functioning of all 9x indicators. The UPS should supply power to the Indicators only.

For the verification, Transnet will only provide cargo that can be used during the verification process and the availability of a weighbridge should it be necessary. All other resources required are to be the responsibility of the supplier. If a truck is to be used, the supplier should provide the truck.



Figure 1: Current Scale Indicator and Control Panels

Transnet Port Terminals requires a comprehensive solution which ensures full functionality of the scale. The units are to be NCRS approved for trade and must have fully automatic and manual functionality. The output of data should be in the form of a print-out via a printer allocated for each scale and should also offer an output that can upload to a TPT computer in Transnet`s GCOS platform. Upon completion of the installation, the following documentation will be required in the form of a data pack:

- Electrical COC
- Verification certificate for the scale
- Warranty certificates
- As built Electrical Drawings
- As built Mechanical Drawings (if applicable)
- Maintenance Manuals
- Training registers (Maintenance and operator training required for TPT staff)

3 ACCESS PERMITS

Site meeting:

For the site meeting, all suppliers are required to bring with them the following:

- Hardcopy of the RFQ;
- Proof of identification for all employees attending;
- Letter from the relevant company stating the names and surnames of the employees requesting access and reason for access;
- Minimum PPE. Safety vest, COVOD mask, hard hat and safety shoes;
- Suppliers are advised to bring any/all required measuring tools for proper pricing.

Conducting the work:

To acquire access permits for conducting work, external contractors will need to attend safety induction (valid for a year). Safety requires a hardcopy safety file to be delivered to the SHERQ office. Requirements of the safety file are listed in the table below. Thereafter application for permits from security can be submitted. For vehicle access, all vehicles are required to have a company sign and a revolving light and access will also be applied for at the security office.

CONTRACTOR
1. Site Specific Organogram of reporting structure. This document must provide all persons appointed in terms of OHS Act No. 85 of 1993 including contact details. (rev, date, approval)
2. Contractor scope of work information (Company Profile)
3. Notification of Construction Work to the Department of Labour: Document to display required information as per OHS Act No.85 of 1993 – Construction Regulations Annexure A, Must carry the stamp of acceptance from the Department of Labour (if applicable)
4. Application for a permit to do construction work (if applicable)
5. Valid Letter of Good Standing with FEM/WCA: And proof of relevant insurances to carry out work.
MANAGEMENT PLANS
6. Copy of reference documents: Health & Safety, Security, Quality, Environmental, and other applicable Specifications Including a signed register of communication to Managers, Supervisors & Safety Officers
7. Approved Contractor Execution Plan correlating with Specification provided by Transnet (i.e. Approved health and safety plan, environmental plan, security plan etc.)
8. Contractors Health and Safety Policy
9. Site Specific Emergency Plan
10. Contractors Traffic Management Plan (if applicable)
11. Procedure for handling Hazardous Chemical Substance's and Applicable Safety Data Sheet (if applicable).
APPOINTMENTS
12. Fully completed appointments of the following (depends on the scope of work) but not limited to:
• Sec. 16(2) – Delegated Authority (Assistant to the CEO)

• CR 8(1) – Construction Manager
• CR 8(7) – Construction Supervisor
• CR 8(8) – Assistant Construction Supervisor
• CR 8(5) – Construction Safety Officer
• CR 9(1) – Risk assessment
<ul style="list-style-type: none"> • CR 10. (1)(a) – Fall Prevention Planner (if applicable) • CR 10.(2)(b) (fall risk) Physical & Psychological fitness
• CR 23.(d)(k) – Vehicle operator and Inspector
• GSR 3.4 – First aider
• CR 29 (h) – Fire Fighter
• Sec 24, GAR 9(2) – Incident Investigator
• CR 13(1)(a) – Excavation Supervisor
• CR 28(a) – Stacking and Storage Supervisor
• CR 12(1) – Temporary works designer
• CR 14(1) – Demolition work supervisor
• CR 16(1) – Scaffolding work supervisor
• CR 17 (1) – Suspended platform work supervisor
• CR 18(1)(a) – Rope access supervisor
• CR 19(8)(a) – Material host Inspector
• CR 20(1) – Bulk mixing plant supervisor
• CR 21(2) – Explosive actuated fastening devices inspector
• Sec 17(1) – SHE Rep (more than 20 employees)
<ul style="list-style-type: none"> • GSR 13(a) – Ladder Inspector <p>An abbreviated CV of the above appointed persons shall be attached to the appointment.</p>
Competency certificates will also be attached as required in specifications
13. Elevated work training (Rescue/ Safety harnesses) – accredited Training (If applicable)
14. Fall Protection Plan by competent person / Rescue Plan (If applicable)
15. Contract/Project Specific Risk Assessment indicating the full scope of work and risk profile – High risk task inventory registers to be attached.

<p>16. Risk Assessment (HIRA), Method Statement, Safe Work Procedure to be generated for each specific task to be performed on the contract/project i.e. Site establishment, confined spaces, working at heights, working near water, excavations etc. Note: before establishment they can supply what they will start with – site establishment, fencing, clear & grub...so only request what is relevant at the time.</p>
<p>17. PPE Policy and most recent issue register.</p>
<p>INDUCTION</p>
<p>18. Induction application forms completed for every employee of the contractor performing work on site; The following shall be attached:</p>
<ul style="list-style-type: none"> • Employee Dossier with applicable documentation;
<ul style="list-style-type: none"> • Proof of site specific induction;
<ul style="list-style-type: none"> • Copy of ID Document;
<ul style="list-style-type: none"> • Legal Letter of Appointment;
<ul style="list-style-type: none"> • Proof of competence i.e.: Artisans, drivers, operators etc.;
<ul style="list-style-type: none"> • Valid medical certificate of fitness done by an Occupational Health Practitioner (i.e. Annexure 3 for construction work)
<p>REGISTERS</p>
<p>19. Copy of equipment registers to be used with copy of each item's inspection checklist. The registers are not limited to the following, depends on the scope of work:</p>
<ul style="list-style-type: none"> • Site visitors register
<ul style="list-style-type: none"> • Excavation Inspection Register

4 EQUIPMENT DETAILS:

The following are specifications of the hopper scales:

Equipment	Indicator	Loadcell
5ton Hopper Scale SA number: 1327AA07	Avery Berkel L336	4x 5ton Revere Transducer
60ton Hopper Scale SA number: 1327AA08	Avery Berkel L336	Revere Transducer
5ton Hopper Scale Actuator Manufacturer: Raco-Elektro Maschinen Voltage: 380V Nr.: 15847 Type: SMII Power: 2.7KW Current: 6 A V: 90 mm/sec S: 250mm P: 750Kp	60ton Hopper Scale Actuator Specifications to be taken on site during site meeting	