



**SCOPE OF WORKS FOR SUPPLY, DELIVERY,  
REPAIRS OF THE FLOOD DAMAGED  
INDUSTRIAL OVEN NO.7 (AT RM), TESTING,  
CALIBRATION AND COMMISSIONING FOR  
TRANSNET ENGINEERING.**

**150 EEL ROAD, BAYHEAD ROSSBURGH.**

**REFERENCE No: OPS\_RM\_DBN\_ESR\_200**

**Revision 0**

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# Table of Contents


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Content	Page no
1. INTRODUCTION/ SCOPE OF WORK	4
2. SITE INSPECTION	4
3. INFORMATION REQUIRED	5
4. TECHNICAL REQUIREMENTS	5
5. SPECIFICATION REQUIREMENTS	5
6. OTHER INFORMATION RELATED TO SCOPE	6
7. HEALTH AND SAFETY REQUIREMENTS	8
8. SPECIALIST SUB-CONTRACTORS	9
9. MATERIAL AND WORKMANSHIP	9
10. GENERAL REQUIREMENTS	9
11. DEFINITIONS AND ABBREVIATIONS	10
12. GENERAL	10
13. SITE ESTABLISHMENT	10
14. PENALTY CLAUSES	10

Signature of Bidder/s: \_\_\_\_\_

Date: \_\_\_\_\_

**DOCUMENT AUTHORITIES**

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Signature of Bidder/s: \_\_\_\_\_ Date: \_\_\_\_\_

## **1. INTRODUCTION / SCOPE OF WORK**

This specification is for the:

#	TASK	REQUIRED
1	Design	
2	Manufacture	
3	Upgrade	
4	Refurbishment	
5	Supply	✓
6	Re-wiring / Installation	✓
7	Documentation	✓
8	Testing	✓
9	Training	✓
10	Commissioning	✓
11	Structural Investigation	

Of the specified:

#	ITEM	REQUIRED
1	Supply, delivery, repairs of the flood damaged Industrial Oven number 7 (RM Umbilo), Testing, Calibration and Commissioning for Transnet Engineering.	✓
2	Training and submission of project completion documents.	✓

## **2. SITE INSPECTION**

- a) All prospective tenderers shall be required to undertake a compulsory site inspection to fully acquaint themselves with all aspects involved.
- b) Arrangements to visit the site and confirmation of the date and time of the site inspection shall be made with the Transnet Engineering Project Manager.
- c) The site inspection certificate shall be completed and countersigned by the Project Manager on the day of the visit and must be submitted with the tender documents.

Signature of Bidder/s: \_\_\_\_\_

Date: \_\_\_\_\_

### **3. INFORMATION REQUIRED**

- a) Offers will not be considered unless full particulars and sufficient literature is provided at the tendering stage to enable the Transnet Engineering Technical Officers the opportunity to assess each technical offer properly.
- b) Prospective Tenderers will complete the relevant questionnaire in full and must indicate whether their offer complies with each item of the specification.
- c) Should there be insufficient space for furnishing full details; Tenderers shall provide the additional details in their covering letter. The additional details shall be numbered in accordance with the applicable clause specified in the specification.
- d) As prospective Tenderers are considered to be experts in their field, they are obliged to identify any shortcomings, such as omissions or sub-standard requirements, to the completeness of this specification. These must be brought to the attention of Transnet Engineering at tender stage with alternatives to address these shortcomings. However, each offer shall be quoted for separately.

### **4. TECHNICAL REQUIREMENTS**

**The following legislation and code (but the project is not limited) limited must be complied with:-**

- **The Occupational Health and Safety Act – Act 85 of 1993.**
- **SANS 10142-1: (Edition 3: 2020)** The wiring of premises Part 1: Edition 1.8 Low-voltage installations.

### **5. SPECIFIC REQUIREMENTS**

**Any person with the intention of procuring the material shall ensure that the information below is complied with.**

#### 5.1 Environment

- Indoor.

Signature of Bidder/s: \_\_\_\_\_

Date: \_\_\_\_\_

## 5.2 Scope of work

This specification requirement covers the minimum requirements		
ITEM	REQUIRED	COMPLIANCE Write "YES" or tick "✓" (if complying) or Write "NO" (if not complying).
5.2.1	This scope of work shall be read with annexure 1 (Transnet Engineering Safety, health and environmental management requirements). The bidder shall include costs for adhering to Safety, health and environmental management requirements.	
5.2.2	Transnet reserves the right to invite the bidders to give presentations on their proposals, products, services and/or pricing.	
	<b>Electrical</b>	
5.2.3	<ul style="list-style-type: none"> <li>• Remove electrical panel.</li> <li>• Supply new PLC Controlled panel with the following.</li> <li>• S7-1200PLC</li> <li>• HMI with recipe for different times and temperatures as per existing.</li> <li>• Contactor based Temperature control of the oven.</li> <li>• Automation for moving trolley in and out of oven.</li> <li>• Control of the fans</li> <li>• Necessary safety protections</li> <li>• Schematics to be supplied showing all components.</li> <li>• All wires to be numbered with a clip-on marker</li> <li>• Part list to be supplied and part numbers.</li> </ul>	
5.2.4	The electrical installation and issuing of certificate of compliance shall be in accordance with SANS 10142-1.	
5.2.12	<p>Make and supply 2 sets of hardcopy drawings and 1 set of pdf drawings in a USB memory stick.</p> <ul style="list-style-type: none"> <li>• The drawings shall have the components symbols recognized in electrical and mechanical engineering.</li> <li>• The drawings shall have the legends and notes.</li> <li>• The drawings shall show the component's ratings, sizes, capacity, e.g amperage, voltage, capacitance, etc.</li> </ul>	
5.2.13	<ul style="list-style-type: none"> <li>• Test and commission.</li> <li>• The entire air-condition system shall be fully functional on hand over.</li> </ul>	

## 5.3 Safety Features

- The minimum safety features shall be according to statutory and industry rules.

## 5.4 Services

- The tenderer to state the services required for this project.
- **A testing period of 1 month (744 hours for 24/7 shifts and 248 hours for 8 hour shifts) this shall depend on what shift the business requiring the removal of the specified equipment**
- **No completion of work will be accepted by Transnet without the satisfaction of the conditions above.**

Signature of Bidder/s: \_\_\_\_\_

Date: \_\_\_\_\_

#### 5.5 Warranty

- **The warranty on workmanship and materials shall be 12 months.**
- Specify when the system becomes fully operational and when the warranty period takes effect.
- After the warrant has expired after 12months TE shall be able to access the PLC program and work on it.

#### 5.6 After-Sales Service

- The successful tenderer shall provide Transnet Engineering with acceptable proof that spares can be easily and speedily procured for the equipment within 7 working days through agents locally.

**Note:** All work to be completed in each respect by suitably qualified person.

### 6. OTHER INFORMATION RELATED TO THE SCOPE

6.1 This specification states the minimum requirements relating to the work and in no way absolves the contractor from responsibility for sound engineering practice.

Any omissions or sub-standard requirements of this specification must be brought to the attention of Transnet Engineering at tender stage and optional prices for addressing such omissions must be provided.

6.2 Any matter relating to this work, which requires a decision from Transnet Engineering shall be presented to the Project Manager in charge.

6.3 All offers shall be completed in every respect with this specification. Only completed tenders shall be considered.

6.4 The Technical Officer reserves the right to have the proposal checked independently by a third party.

6.5 Tenders must allow for monthly progress and clarification meetings on site initially and after commissioning for defect meetings when required.

A meeting will be held after issuing of the tender to establish the exact scope and magnitude of the contract. No tender will be considered unless it has the certificate signed by the Engineer or project manager or his representative.

Signature of Bidder/s: \_\_\_\_\_

Date: \_\_\_\_\_

## 7. HEALTH AND SAFETY REQUIREMENTS

- 7.1 All equipment and installation whether detailed in this specification or not shall comply with the requirements of the Occupational Health and Safety Act 85 of 1993 as amended and all other applicable legislation including specific set of regulations and local authority bylaws where applicable.
- 7.2 All the necessary safety equipment such as guards over rotating equipment shall be supplied and the equipment shall comply fully with all the requirements of the South African Occupational Health and Safety Act, Act 85 of 1993 and all other applicable legislation including specific set of regulations and local authority bylaws where applicable. At all times during the manufacture, assembly and testing of the equipment the contractor will be responsible for the safety of all persons on site and the equipment.

### 7.3 SHE SPECIFICATION

Prior to commencement of contract, the contractor shall be issued with a SHE specification in order to compile a SHE file in line with TE requirements.

Prior to establishing on site, it is an explicit requirement of this contract that all of the Contractor's personnel directly involved with this contract, including those of sub-contractors, attend a **Safety induction course**. Transnet will provide the course free of charge and attendance is compulsory for all personnel under the control of the Contractor who, during the duration of the contract, will be present on site whether on a full time or adhoc basis.

The contractor must allow for all additional charges because of these requirements as no claims for extras will be accepted in connection with the foregoing.

### 7.4 As part of the legislative and TE SHE requirements.

The successful contractor is required to conduct a Risk assessment to ascertain all potential risks associated with this project. The completed risk assessment is to be formally submitted to the Risk department via the project manager at least two weeks prior to the commencement of the actual project. A safety file and associated documents will be required from a successful tenderer and such will be communicated by the Risk department.

Signature of Bidder/s: \_\_\_\_\_

Date: \_\_\_\_\_

## 8. SPECIALIST SUB-CONTRACTORS

- 8.1 Only specialist sub-contractors who have previously successfully completed work of the type and extent specified in this document should be engaged. The tenderer shall provide the technical officer with sufficient proof of having suitable experience regarding the design and manufacturing of similar equipment.  
To this end, complete and detailed reference list shall be submitted with the tender. Reference list shall include addresses as well as contact person who may be visited for inspection of the equipment during the adjudication period.
- 8.2 The tender shall submit a complete list of proposed sub-contractors and suppliers of major components with his tender.
- 8.3 The tenderer shall be prepared to commit themselves in writing to the technical officer with an adequate, experienced and stable project team for the duration of the contract.
- 8.4 Transnet Engineering will not consider any Tenderer's offer that, in the sole opinion of Transnet Engineering, does not have adequate experience in the design and manufacture of such equipment / product.
- 8.5 Contractors shall do the bird removal work simultaneously with other contractors on-site busy with other work and shall plan work that it integrates with other work performed.

## 9. MATERIAL AND WORKMANSHIP

- 9.1 The equipment shall be offered complete in all respects, including all standard accessories normally offered by manufactures, all of which shall be specified in detail.
- 9.2 The equipment, as made and supplied, shall be complete in every respect, of modern design, using the most advanced proven technology extensively supported by reputable local companies, and be built to good engineering practices.
- 9.3 All equipment shall be adequately protected against damage and contamination during shipping, transport and storage.

## 10. GENERAL REQUIREMENTS

Operation will be in the following conditions:

Altitude	Sea level
Ambient temperature	0°C to 45°C
Relative humidity	50% to 100%
Atmosphere	Heavy saline

- 10.1 Tenderers shall indicate clause-by-clause either that they comply in every respect with the specific requirements, or if not, exactly how it differs.

Signature of Bidder/s: \_\_\_\_\_

Date: \_\_\_\_\_

## 11. DEFINITIONS AND ABBEVIATIONS

CLIENT	Transnet Engineering Durban
TECHNICAL OFFICER	Project Manager, Transnet Engineering Durban
CONTRACTOR	Contractor appointed under this specification document
SABS	South African Bureau of Standards
SANS	South African National Standard
ISO	International Organisation for Standardisation

## 12. GENERAL

12.1 The successful tenderer will be subjected to a workshop inspection by Transnet Engineering, to ensure that the facilities are to the satisfaction of the Transnet Engineering in terms of the quality control and equipment capabilities for manufacturing such type of equipment.

## 13. SITE ESTABLISHMENT

13.1 The contractor shall be solely responsible for safety of his staff and for providing security to safeguard his works and material on site, until such a time.

13.2 The contractor shall be required to attend site meetings when convened by the Project Leader controlling the contract.

13.3 The contractor will be responsible for any damages caused by his staff to the building and civil works on site.

## 14. PENALTY CLAUSES

14.1 Due to the criticality of this project, penalties will be levied for late deliveries.

Signature of Bidder/s: \_\_\_\_\_

Date: \_\_\_\_\_