

Memo

Name: Thabo Tsimane  
Title : Oil Depot Manager

To: \_\_\_\_\_  
\_\_\_\_\_  
Copy to: \_\_\_\_\_  
Date: 08 January 2025

**Subject: ISO Tanks rental and services at ERI for a period of 3 years**

## **1 INTRODUCTION**

ERI-T&SS has a limited number of ISO tanks available and cannot meet the required demand resulting in project delays, breakdown, or maintenance to be carried on Transformers does require T&SS to have a contract in place for the rental of ISO tanks in order to store the transformer oil whilst the breakdown, repair or maintenance is in progress.

T&SS provides essential and strategic repair, maintenance, refurbishment, and related engineering services, both on site as well as at our workshop facility in Rosherville. The ISO tanks will be used for storage of transformer oil, as well as having the capability to circulate oil when connected to a mobile oil plant. Our Oil depot requires additional ISO tanks to be able to execute more projects efficiently.

## **2 SCOPE OF WORK**

The ISO tanks shall be capable of storing Transformer Oil at the temperature ranging from 0 degrees Celsius to 100 degrees Celsius. The ISO tanks must also be capable of allowing Transformer oil to be circulated from the ISO tanks through Mobile Oil Plant.

## **3 SPECIFICATIONS**

- ❖ ISO tanks frames typically manufactured from high tension carbon steel and comply with ISO dimensions.
- ❖ Frames Dimensions ( Length -6 meters, Width- 2.4meters , Height- 2.8 meters)
- ❖ ISO tanks needs to be fitted with lifting lugs for lifting purposes.
- ❖ Certain ISO tanks should be able to be lifted with a forklift ( when required)
- ❖ ISO tank should fitted with a breather silica gel type.
- ❖ ISO tank should be able to withstand a vacuum of 0.41 bar
- ❖ ISO tank should be able to handle a pressure of 4 bar.
- ❖ ISO tank should be subjected to a test pressure of 6 bar.
- ❖ ISO tanks must be fitted with a clear level gauge.
- ❖ The ISO tank must be fitted with at least one water tight man hole at the top of the tank with a minimum diameter of 600mm.

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- ❖ ISO tank should fitted with access ladder with a carrying capacity of 200kg.
- ❖ ISO tank should fitted with a walking platform with carrying capacity of 200kg.
- ❖ ISO tank should fitted with a Pressure Relief valve set at 60Kpa.
- ❖ ISO tank should fitted with a vacuum valve that is set at 3Kpa.
- ❖ ISO tank should fitted with a top discharge valve to be used during oil circulation.
- ❖ ISO tank should fitted with a bottom discharge valve.
- ❖ ISO tank should have a minimum capacity volume of 20,000 liters, and the ISO tank should have a tare weight of not more than 3,700 kg.
- ❖ ISO tank should be able to accommodate a twist lock securing system.
- ❖ ISO tank should fitted with a nameplate indicating working pressure, allowable vacuum, capacity volume and tare weight of the ISO tank.
- ❖ Each ISO tank should have its own unique identity number and must be clearly visible.
- ❖ Tank to be transported empty at all times.

**Delivery requirements:**

- ❖ ISO tanks to be cleaned prior to delivery and supplied with a clean condition certificate.
- ❖ ISO tank will be inspected on delivery before an ERI representative sign off the POD and ISO tank to be dispatched to site within agreed period.
- ❖ ISO tank to be delivered to site with the certification documents as per ISO tank container number.
- ❖ ISO tank to be delivered to site with a temporary bund wall( tarpaulin with drums or interlocking barriers) and to be erected by ISO tanks supplier

**NOTES:**

All galvanizing to comply with SABS ISO 1461

Internal finish: 2B

All Stainless steel to be SA240GR304

All Mild steel to be hot dipped

All bolts to be supplied with Locknuts

All bolts to be grade 4.6 Galvanized

Provision for lifting lugs for lifting purposes

Provide test certificates

Provide design calculations

Compiled by:



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