

	ERI NON-DESTRUCTIVE TESTING SCOPE OF WORK	Turbo Gen Services
---	--	---------------------------

Title: **SOW for ERI NDT Training,
Yearly Authorisation Training
and Examination, 5 Yearly
Certification Renewal and 10
Yearly Recertification**

Document Identifier:

Alternative
Reference Number: Not Applicable

Area of Applicability: Eskom Rotek Industries
SOC Ltd

Functional Area: Turbo Gen Services

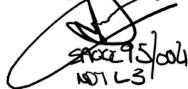
Revision: 0

Total Pages: 4

Next Review Date:

Disclosure
Classification: Controlled Disclosure

Compiled by



Functional Responsibility



Authorized by



Braam Prins
NDT Level 3 Engineer

Owen Makhubele
Acting NDT Services
Manager

Clifford Mukhari
Works Service Manager

Date: 2022/08/05

Date: 05/08/2022

Date: 04/08/2022

1. Purpose

The purpose of this document is to outline the requirements for training, certification, and authorization of ERI NDT personnel for the purposes of providing reliable NDT services to Eskom as per Eskom Standard for Non-Destructive Testing on Eskom Plant (240-83539994).

2. Context for NDT Training and Certification

NDT is extensively used by Eskom Rotek Industries SOC/Turbo Gen Services/Works NDT Services Department in the management of quality and structural integrity for components. For NDT to be effective, the NDT personnel undertaking such work must be properly trained, qualified, certified, and authorised.

Since the effectiveness of NDT depends upon the capabilities of NDT personnel who performs and are responsible for the NDT, ongoing training in the NDT method they are certified in is required. This ongoing training and examination are required for yearly authorisation by ERI Authorisation Authority. This requirement is mandated by International Standard ISO 9712, ERI NDT Written Practice (240-136614844) and Eskom Standard for Non-Destructive Testing on Eskom Plant (240-83539994).

Considering the maintenance philosophy and needs of Eskom Plant there is a requirement for NDT personnel to be trained in new NDT methods to meet the demands of Eskom. This training, qualification and certification shall be administered as per the requirements of ISO 9712.

Renewal – The maximum period of validity of the NDT certificate holders is 5 years. Prior to the completion of the period of validity following certification, certification shall be renewed by the certification body for a new period of validity on production of verifiable documentary evidence of continued satisfactory work activity without significant interruption in the method and sector for which certificate renewal is sought.

This renewal certification can also be obtained by successfully meeting the requirements of the structured credit system as defined by ISO 9712. Where a candidate / organisation elects to use the structured credit system, they shall provide evidence to the certification body to demonstrate achievement of a minimum of 100 points in the 5-year renewal period based on the requirements of ISO 9712. These credit points are obtained through continued yearly training.

Recertification - Prior to the completion of each second period of validity, the certified individual shall be recertified by the certification body for a new period of five years after the successful completion of a theoretical and practical examination element, or successfully meeting the requirements of the structured credit system as per the requirements of ISO 9712. These credit points are obtained through continued yearly training, same as for renewal.

If the route of theoretical and practical examination is followed, refresher training is needed before recertification examination.

CONTROLLED DISCLOSURE

When downloaded from the document management system, this document is uncontrolled and the responsibility rests with the user to ensure it is in line with the authorised version on the system.

No part of this document may be reproduced without the expressed consent of the copyright holder, Eskom Rotek Industries SOC Ltd.

3. Scope of Work

The Certification Body (CB) shall be approved to the South African National Accreditation Standard (SANAS). The scheme committee shall include individuals or companies representing the South African NDT Industry. The certification system, which shall be controlled and administered by a certification body, includes all procedures necessary to demonstrate the qualification and the competence of an individual to carry out tasks in a specific NDT method and product or industrial sector, leading to certification.

3.1. The contractor shall supply the following initial training and certification services as and when required by ERI NDT Services in the following NDT Methods and multi sector to Level 1, Level 2, and Level 3, this should include once off rewrite:

- Magnetic Testing (MT)
- Penetrant Testing (PT)
- Ultrasonic Testing (UT)
- Phased Array Ultrasonic Testing (PAUT)
- Time of Flight Diffraction (TOFD)
- Eddy Current Testing (ET)
- Alternating Current Field Measurement (ACFM)
- Radiographic Testing (RT)
- Visual Testing (VT)
- Hardness Testing (HT)
- Thermographic Testing (TT)
- Leak Testing (LT)




3.2. The contractor shall supply ongoing training for the purposes of ERI authorisation, renewal, and recertification:

- Yearly completion of theoretical training in the NDT methods, this shall include theory training in the different product sectors certified to, this shall include examination
- Yearly completion of practical training in the NDT methods, this shall include practical training in the different product sectors certified to, this shall include examination
- Yearly delivery of practical training and theoretical training in the NDT methods
- Refresher training for renewal and recertification in the NDT methods
- Yearly training in translation and interpretation of new and current NDT codes, standards, and specifications, this shall include examination
- Yearly training in the manufacturing/fabrication of components, processes, and product technology, this shall include examination
- Yearly training specific to UT, this shall include examination.

CONTROLLED DISCLOSURE

When downloaded from the document management system, this document is uncontrolled and the responsibility rests with the user to ensure it is in line with the authorised version on the system.

No part of this document may be reproduced without the expressed consent of the copyright holder, Eskom Rotek Industries SOC Ltd.

-  DGS Sizing
-  Testing of Stainless-steel welds
-  Critical Sizing
- Renewal/Recertification of BINDT certifications

3.3. The Eskom Rotek Industries NDT Engineer/Authorisation Authority (AA) representative from TGS Works NDT Services department will identify all the training needs and requirements.

NB: An external audit may be conducted by an Eskom Rotek Industries NDT Level 3 panel on the contractor before any contract or work is awarded. The audit will determine if the capacity and capabilities of the awarded contractor as compared to the scope of work and execution period.

4. Reporting


Reporting shall be done within 5 working days to the ERI TGS Works NDT Services Authorisation Authority. This should also include attendance registers as well as results of examination and a certificate of specific training and successful completion.

5. Supporting Documents

NB: The following documentation must be returned for the purpose of technical evaluation:

- SANAS Accreditation

6. Document Supported by:

Name	Position	Signature	Date
Anania Chamunorwa	ERI NDT Level 3 (AA)		25/01/2023
AQ GELDENHUYS	ACTING CHIEF ENGINEER		02/09/2022

CONTROLLED DISCLOSURE

When downloaded from the document management system, this document is uncontrolled and the responsibility rests with the user to ensure it is in line with the authorised version on the system.

No part of this document may be reproduced without the expressed consent of the copyright holder, Eskom Rotek Industries SOC Ltd.