

National Laboratory Association of South Africa - NPC

P.O. Box 298
Persequor Park
Pretoria, South Africa, 0020
Reg. No: 1994/002856/08

1 De Havilland Crescent
Persequor Technopark



Tel: (+27) 012 349 1500
Fax: (+27) 012 349 1501
<http://www.nla.org.za>

Invitation to Participate

High Resistance Calibration PT Scheme

ILC 144

Compiled by:

Floris van der Walt

Approved By:

Steve Sidney

Dear Accredited DC/LF Laboratories,

As you know, one of tools available to you to assure the quality of your measurement results; and the one which SANAS requires you to implement according to SANAS TR48, is proficiency testing.

Whilst informal bilateral comparisons with other accredited laboratories can fulfil this requirement, the additional cost of purchasing a suitable artefact, as well as the effort and time required to ensure the stringent requirements of TR48 are met, can often result in significant indirect costs.

The National Laboratory Association of South Africa (NLA-SA) has been offering “open” PT schemes for the calibration laboratory community in a number of metrology fields, for some time already. However, whilst these schemes have a distinct advantage over “closed” schemes, since they highlight measurement problems within a laboratory within approximately two weeks of participation, they currently do not meet all the requirements of SANAS R48 – in particular, the reporting requirement that the actual Reference Measurement Values need to be reported.

As an ISO17043 PT Provider the NLA-SA also implements “closed” PT schemes, of which the Electrical DCLF (High Resistance Calibration) Scheme is one. Whilst this scheme will have the disadvantage that participants will only receive a final report on their performance approximately 6 months after their participation, two significant advantages are that participants will be able to compare their performance to other participants and the scheme will meet all the stringent requirements of R48.

As a DC/LF Laboratory you are invited to participate in ILC 144 in which you will be required to calibrate various MΩ Resistors which will be circulated with a suitable protocol (NLA-PT-C-P-43-01).

The following measurements have to be performed:

- a. 100 MΩ
- b. 1 GΩ
- c. 10 GΩ
- d. 100 GΩ

Since a “closed” scheme has a fixed start and end date, and fixed, mutually agreed upon scheduled participation date slots for each participating laboratory, participation is limited to laboratories that register and secure payment for participation up front. This then facilitates the scheduling of all the necessary dates. In order to keep the time duration of the scheme reasonable, the number of available slots is limited and early registration is therefore advised.

Submission of Results

The measurement results, together with the estimated Expanded Measurement Uncertainties for a Level of Confidence of 95,45% must be reported on the provided result sheet.

NOTE: These uncertainties should be the calculated values and need not be limited to the participant’s SANAS accredited Measurement Capabilities. Since NO calibration certificate bearing the SANAS accreditation symbol is issued, the SANAS requirements do not apply.

NLA-PT-C-I-05-01	Page 2 of 4	Date of Issue: 2020/08/26
------------------	-------------	------------------------------

The results must either be faxed to +27 12 349-1501 or E-mailed to florisvdw@nla.org.za.

Reference Values

Since the Reference Value is in no way influenced by the values obtained by the participants, there is no need to evaluate their technical suitability before allowing them to participate. This is of great advantage to laboratories who wish to participate in the scheme simply to provide an indication if they are competent or not, typically in preparation to declaring staff competent, or applying for ISO/IEC 17025 accreditation.

Evaluation of Results

The measurement results together with their associated uncertainties of measurement, as reported by the participants, will be used to calculate “Normalised Error” (E_n) values.

Confidentiality

The identity of participants' results will be kept confidential by means of a unique code known only to the participant and the scheme coordinator unless the participant waives confidentiality in writing.

Participant Registration

The registration deadline for this Scheme is 2020/09/11. Late applications will be considered and decision for participation will be taken by the PT scheme administrator based on the progress/stage of the ILC. **The starting date is 2020/09/21 and the proposed date for the final report distribution is 2020/11/30.**

This final report date is based on a minimum number of anticipated participants but the final date will only be confirmed once all the participant registrations have been received. Participants will be informed of the publication date of the report after the registrations have closed.

The NLA-SA is pleased to inform prospective participants that SANAS have agreed to partially sponsor all SANAS Accredited laboratories, and the cost of the scheme after taking this sponsorship into account is as per the table below.

The participation cost includes the submission of three (3) sets of results per registration.

NLA Membership Status	SANAS Accredited	Not SANAS Accredited	International (excludes courier fees)
NLA Member	R1759.59	R2199.49	USD 180
Non NLA Member	R2199.49	R2749.36	USD 216

This includes the design of the scheme, establishment of the reference value, provision of the scheme artefact, analysis of the results and the issuing of a final report.

NLA-PT-C-I-05-01	Page 3 of 4	Date of Issue: 2020/08/26
------------------	-------------	------------------------------

How to Participate in the Scheme

The application form can be downloaded from the NLA-SA's website at http://www.home.nla.org.za/?page_id=939

The completed application form must either be faxed to +27 12 349-1501 or E-mailed to florisvdw@nla.org.za.

Kind Regards



Steve Sidney
Director
National Laboratory Association – South Africa

NLA-PT-C-I-05-01	Page 4 of 4	Date of Issue: 2020/08/26
------------------	-------------	------------------------------