# SOUTH AFRICAN NATIONAL ACCREDITATION SYSTEM

## SPECIALIST TECHNICAL COMMITTEE MEETING:

## IONIZING RADIATION METROLOGY

Minutes of the Meeting held at the NLA Building, Corner of Gen. van Ryneveld Street & De Havilland Crescent, Persequor Park, Lynnwood, Pretoria on Friday, 7 October 2011 at 09:00

### Present

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<th>Remarks/Designation</th>
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<tr>
<td>N Tayler</td>
<td>SANAS Field Manager</td>
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<td>G Mare</td>
<td>Committee Chair</td>
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<td>A Mofokeng</td>
<td>NECSA</td>
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<td>M Mamabolo</td>
<td>SABS</td>
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<td>S Thema</td>
<td>SANAS-Scribe</td>
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<td>S Sydney</td>
<td>NLA</td>
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<td>TM Ramashidzha</td>
<td>SABS</td>
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<td>Z Msimang</td>
<td>NMISA</td>
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<td>S Mbizo</td>
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<td>S Jozela</td>
<td>NMISA</td>
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### Apologies

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<tr>
<td>Mr V Kgathi</td>
<td>NECSA</td>
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<td>Mr H Hendriksz</td>
<td>SABS</td>
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<td>Ms H Badenhorst</td>
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<td>Mr F Beeslaar</td>
<td>NECSA</td>
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<td>Mr C Kros</td>
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<td>Mr M Britton</td>
<td>NECSA</td>
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<td>Dr J Mostert</td>
<td>NECSA</td>
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1 Opening and Welcome

The chair, Ms G Mare opened the meeting and welcomed those present

2 Apologies

Apologies where noted on the attendance register

3 Signing of Attendance Register

Attendance register was circulated and signed by everyone present

4 Minutes of Previous meeting

Previous minutes were accepted and adopted by the STC committee

5 Matters arising from previous minutes

5.1 (6.1) 5 Year Audit Plan

Report on 2010/2011 SANAS Dosimetry Audit dated 28 February 2011 has been finalised by NMiSA and was distributed to everyone present during the meeting.

The relevance of the use of the EN value was discussed, specifically w.r.t the fact that NMISA values are much lower than those of the Laboratories’ values. The UB results have to be further evaluated by NMISA during the reporting process and reported as a recommendation in future.

Resolution:
The 5 year plan was updated to include 2016, which will be the same as 2012 “Ambient Dose Equivalent Rate”

5.2 (6.2) Training – Using of Soil density Gauges

Steve Sydney gave feedback:
This was initially developed in SA for the South African soil density industry.

A calibration subcommittee meeting was held at the NLA to discuss calibration accreditation forsook density meters. Calibrated instruments currently display different results from non-calibrated equipment. The local laboratory is currently suspended. Ms Zakhiti Msimang reported that ASTM usage documents do not specify much on calibration process. A US working group has a guidance document on calibration. SABS MoU with ASTM to be followed up to be able to obtain the relevant ASTM method. Steve Sydney is part of the WG. No formal traceability has been formalised in the US for Soil Density Meters. Traceability is obtained by Reference Blocks, calibrated for dimension using CMM 3-d
measurements and for mass to obtain density traceability. Manufacturing of the Reference block is critical. Density is specified on the standard but the calculation not. This issue will be further investigated by Steve Sydney, and information forwarded to the STC members.

5.3 (6.3) TR 18-01 Accreditation Criteria – Radiation Dosimetry

Zakithi reported to the meeting that it is still not certain if the IAEA documents have been published. As soon as the document is released Zakithi will send the document to Sam to present to the STC members.

TR-18 was revised point by point and changes were noted where appropriate. Humidity requirements were added, and the correct way of presenting formulae were added.

Action:
Update TR-18 as discussed during the meeting and publish new issue

5.4 Zakithi reported that the budget for X-Ray equipment for Diagnostics has been approved and will be re-instated by end 2012.

5.5 (6.5) Accreditation of Soil Density Gauge Calibration

The meeting agreed to consider the feedback that was reported by Steve Sydney as given in par 5.2

Recommendation:
WG consisting of SANAS, NLA, NMISA, DoH, SANRAL, to be replaced by the NLA WG, Mr S Sydney as responsible person

5.6 (6.7) Neutron Calibration Facility in South Africa

The Neutron facility is still not fully operational. A program was written for each of the motors. NMISA to report back on the progress.

5.7 (6.8) Update of CV’s, F 18 & F 20 Forms

Action:
Neville to check if there are any CV’s outstanding

5.8 (7.1) Measurement Uncertainties in the Radiation Field

Mr Mofokeng informed the meeting that the experts (Dr J
Mostert and Mr Charles Kros) have withdrawn from the STC committee and as a result the course has not been established

The minimum requirements for the different levels of expertise will be as follow:
Trainee metrologist: SANS 17025 course provided by a registered provider.
Metrologist: Introduction to Metrology : NLA Basic course
Expert Metrologist: UoM Basic course compulsory; Procedure writing (NLA course) and Method validation.

5.9 (7.2) Calibration of the Calibration Radiation Track
NECSA to submit the proposal w.r.t the use of a Standard Reference, directly to NMiSA to be considered if possible.

This is a NECSA specific need, and is not necessarily applicable to all laboratories

5.10 (8.1) Metrologist Registration Scheme

**Actions:**
Neville to forward the template for registration of Metrologists to the Applicants.

All Laboratories to submit task lists for Metrologists/ Expert Metrologists.

Neville to collate and circulate laboratory evaluation

6 New Items

5 Year Plan
As discussed in 5.1.

7 Next meeting
Neville to announce the date for the next meeting

9 Closure
Meeting was officially closed by the chair