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Quality Management System – Policy and Programme Support Section					
M E A S U R E M E N T T R A C E A B I L I T Y					

1. PURPOSE

Regulating the calibration of all measurement devices within PPSS to make the measurement results traceable to SI-units.

2. SCOPE

This procedure applies to all measurement devices used in the testing laboratory of PPSS to arrive at results, which are reported to the customer.

3. RESPONSIBILITIES

Service Group Leader

- To decide on the method of calibrating a measurement instrument and/or reference material.
- To establish procedures describing handling, checking, controlling and storing measurement standards and/or reference materials
- To inform the Quality Manager about this decision

Quality Manager

- To incorporate the relayed information into the list of equipment

4. DESCRIPTION

To ensure the validity and accuracy of the results reported to the customer, all measurement devices, which are used within PPSS to arrive at these results have to be calibrated. These calibrations shall be performed, whenever technically possible, in a way that enables traceability to the International System of Units (SI).

	Function	Name	Signature and Date
Authorized	Section Head	K. Mrabit	2005-05-20
Approved	Unit Head	Pascal Deboodt	2005-05-05
Approved	Service Group Leader	R. Cruz-Suarez	2005-03-30
Approved	Service Group Leader	John Hunt	2005-03-08
Registered	Quality Manager	J. Zeger	2005-03-03

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s:\quality management\quality management documentation\general technical procedures\ PR-19-OP_Measurement_traceability_V1.doc

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Traceability to SI-units can be achieved in different ways :

- Use of a calibration laboratory, which itself is accredited or bound into an international mutual recognition system, which establishes recognition by performance checks, and therefore guarantees traceability of its services to SI-units.
- Using PPSS calibration standards, which are calibrated either through an accredited calibration laboratory or through a documented and unbroken chain of comparisons linking the standard to relevant primary standards of the SI units of measurements.
- Directly comparing the PPSS calibration standard with a primary standard of the SI units of measurement realized either nationally or internationally.

For each comparison within the unbroken chain to link an PPSS internal standard to a primary standard the uncertainty of comparison measurement shall be observed and documented. Finally the overall, combined uncertainty of the comparison measurements has to be calculated and documented together with the measured value of the in-house standard.

Whenever traceability to SI units of measurement is currently not possible out of technical reasons, it may be replaced by

- using a certified reference material provided by a generally accepted competent supplier or
- using generally accepted special methods that are clearly described

to perform the calibration.

In both cases this method to establish traceability of calibration should be supplemented by participating in (international) laboratory intercomparison exercises whenever possible.

It is the responsibility of the Service Group Leader to decide which method shall be used to establish traceability of calibration for the measurement devices used in the testing laboratory. The decision, which may state that either the service of an external calibration laboratory or internal reference standards will be used to calibrate an instrument, has to be documented and reported to the Quality Manager. The documentation may be in the instrument logfile or a special calibration procedure for the measurement device.

The Quality Manager shall incorporate the method of calibration, selected by the Service Group Leader, into the list of equipment he has to prepare and update as stated in PR-15-OP (“Measurement equipment and software”).

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5. RECORDS

Records coming out of this procedure are the description of the way to calibrate quality relevant measuring devices and/or standard materials to be relayed to the Quality Manager for updating the list of equipment.