

**Report of SIM Laboratories to the CCRI (section III, neutron measurements)  
Prepared by Lisa R. Karam, Acting Chair, SIM MWG6 (ionizing radiation)  
Presented by David Gilliam, representative from the NIST  
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**Neutrons (section III):**

*Comparisons* A few comparisons have had SIM participation in the last two years. Specifically, both NIST and IRD-LNMRI are participating in the CCRI(III)-K9.AmBe comparison of emission rate (AmBe source; measurements and analyses at NIST are complete and will be sent to the referee shortly), and both will be participating in the supplementary EUROMET.RI(III)-S1, comparison of neutron survey meter calibrations. The planned NIST-led comparison of thermal neutron fluence rate measurements (CCRI(III)-K8) has been postponed much longer than expected. The NIST Neutron Group remains willing to lead and host this comparison. However, since the NIST Group probably will not be able to commit to a firm schedule for this comparison until the next meeting of the Section III (2007), it would be reasonable to consider letting another laboratory take over the lead of this comparison if Section III wishes to avoid further delay in the schedule.

*Discussed proposals for future comparisons* A possible organization of a SIM comparison of neutron survey meter measurements is being considered by NIST, and IRD-LNMRI would like to see a comparison on neutron fluence (AmBe) for 2006. Discussions with possible SIM participants for the survey meter comparison (including NRC Canada) will take place this summer.

*Status of CMCs* At this time, no neutron CMCs from SIM have been published. The NRC Canada, NIST USA, ININ Mexico and IRD-LNMRI Brazil all have services for neutrons and have one or more CMCs which have been submitted. All have already been accepted by COOMET for publication; we are waiting for responses from EUROMET (for all 4 labs) and APMP (for ININ) on their acceptance of the remaining CMCs. Latest versions of these CMCs have been resent to EUROMET and APMP for review, and will be submitted to the JCRB as soon as possible.

*Quality Systems* The NRC has been through internal audit (successfully) and has some additions/changes to make in the next two months. They will then apply for an external audit (hopefully in the fall/winter 2005). The QS for NIST is complete for services (SRMs currently underway), and NIST was able to self declare in October 2004. The ININ QS is still in progress and, to date, is about 60 % complete. The LNMRI Quality System has been implemented and was peer reviewed in 2004; approval was received by the SIM Quality System Task Force (SIM-QSTF) in 2004 (and an action plan prepared for 2004-2005).