

February 27, 2003

Dear Members of Section III:

We have been increasingly uncertain about the time schedule and other issues related to Thermal Neutron Comparison. We have been reluctant to propose a major rescheduling or reorganization of this comparison, but we have decided that we must do so. Since September 11, 2001 we have been overwhelmed with "Homeland Security" activities, and we have finally given up hope that this situation will improve soon.

We will have to postpone NIST leadership of this comparison for at least two years, and we may want to change the protocol to one of an entirely different style. The current protocol would take a long time to complete, and we were favorably impressed with the success of the recent comparison of fast neutron fluence measurements at the PTB.

It might be possible to organize the Thermal Neutron Comparison in a similar manner. We could make thermal neutron beams of different qualities and intensities available for two weeks at NIST for the measurement comparisons. By different qualities, I mean different maxwellian temperatures (~40 K or ~300 K), monoenergetic beams of different wavelength (~2 C to ~5 C), and different levels of contamination by fast neutrons, epithermal neutrons, and gamma rays. NIST would provide transmission monitors on the beams to normalize all the measurements. Fluence rates of 10^4 to 10^9 neutrons $\text{cm}^{-2} \text{s}^{-1}$ can be arranged. The principal advantage of this method of organization is that the entire comparison and reporting process can be completed more quickly.

The decision whether to reorganize the Thermal Neutron Comparison or to just postpone it should be discussed at the meeting of Section III in May.

We regret that we have not been able to keep this comparison on the schedule that was originally expected.

Sincerely,

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