

REMIT OF THE CCR(II) “EXTENSION OF SIR WORKING GROUP” (ESWG)

2009

Objective:

The objective of the “*Extension of SIR Working Group*” (ESWG) of the CCRI(II) is to develop and implement a self-consistent scheme for including the alpha and beta emitters within the Système International de Référence (SIR), currently restricted to gamma emitters.

Defined outcomes:

- to provide support and guidance to the BIPM in defining the most adequate technical procedures for steady comparison of beta and alpha emitters,
- to advise on the best experimental setup for implementing the extension of the SIR at the BIPM,
- to contribute to the documentation of the specific metrological principles as well as the practical aspects of the operation of the extended SIR at the BIPM.

Membership:

J. M. Los Arcos (Co-ordinator, CIEMAT)
 T. Altzitzoglou (IRMM)
 R. Broda (RC)
 P. Cassette (BNM-LNHB)
 P. De Felice (ENEA)
 A. Harms (NPL)
 K. Kossert (PTB)
 G. Ratel (BIPM)
 F. van Wyngaardt (NMISA)
 B. Zimmerman (NIST)

Work schedule: The ESWG meets periodically, approximately once a year, to analyze jointly the contributions of individual members or of invited experts and to assume the new actions. Supplementary information is also exchanged by electronic mail. Occasional visits to, or secondments at, the BIPM are also organized in view of specific problems that require more intensive joint work.

Outputs:

- Technical documents stored at the ESWG restricted web site.
- Distribution of Minutes of each group meeting or action.
- Reports at the CCRI(II) meetings.
- Trial exercise on the simulation of the extended SIR (under preparation).
- *BIPM Monograph* on the fundamentals and the practical aspects of the extension of SIR (under preparation).

Conclusion:

The ESWG will conclude once the technical tasks for steady comparison of beta and alpha emitters will be fulfilled and conveniently documented in the *BIPM Monograph* and after a joint BIPM-ESWG verification of routine operation for 6 to 12 months. Significant milestones will be:

- Confirmation of reference scintillator production at BIPM
- Trial exercise of simulation of extended SIR operation
- Analysis of trial exercise
- Technical implementation of extended SIR
- *BIPM Monograph* on the Extension of the SIR
- Verification of extended SIR operation.