



International Atomic Energy Agency
INTEROFFICE MEMORANDUM

To: All Members of the Nuclear Applications Research Contracts Subcommittee Date: 2002-01-29

Reference: F4.10.16

Through: Din D. Sood
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Subject: **Progress report and request for extension: CRP on ‘Fission product yield data required for transmutation of minor actinide nuclear waste’**

Please, find attached the progress report of the CRP, prepared at the end of its fourth year. Because of the complex nature of the project and the difficulty of the tasks to be achieved, a one-year extension is requested. Many of the objectives of this CRP have been achieved with the development of global systematics, nuclear models and a computer program for calculating any desired fission yield. However, a crucial analysis of the reliability and uncertainty of the fission yields would significantly enhance the output of this CRP, and for which an additional year would be required. This year would not only enable the implementation of important improvements to the nuclear models and codes but also define the reliability and uncertainty of these fission yield predictions. This degree of quantification would be important for member state users of the fission yields resulting from this CRP, particularly in feasibility studies for nuclear waste transmutation scenarios.

A benchmark exercise was designed during the previous RCM, to test the reliability and capabilities of all the models and associated codes developed during this CRP. Furthermore, the resulting definition of realistic uncertainty estimates for the calculated yields would clarify important issues in various applied fields and form the basis for greater confidence in future fission yield evaluations.

The proposed extension of the CRP would permit the necessary modifications to models and codes, performance of a benchmark exercise, analysis of the results, and provide users with highly-credible and tested fission yields and realistic uncertainties. Approval is sought for this important one-year extension to the CRP and for the associated RCM at its end.