

**CSEWG Status Report to**  
**Working Party on Nuclear Data Evaluation Cooperation**

**Meeting held at**  
**Brookhaven National Laboratory**  
**April 19-21, 1999**

The 47th meeting of the Cross Section Evaluation Working Group was held at Brookhaven National Laboratory, October 20-22, 1998. A total of 32 individuals participated from 12 U.S. organizations, with one participant from NEA Data Bank (Paris) and one participant from the Japanese Nuclear Data Center.

Evaluation Committee:

The meeting approved for release a 35 neutron and 35 proton evaluations submitted by Los Alamos where the evaluations have been extended from 20 to 150 MeV. The review was performed by Tokio Fukahori (JAERI) and Arjan Koning (Petten) as part of a NEA Working Party activity. The evaluations are now being processed. They will be included in the next release of ENDF/B-IV.

The meeting approved the plan to update the cross sections for  $^1\text{H}(n,n)$  and  $^{235}\text{U}(n,f)$  a future ENDF/B-VI revision despite the prior policy to change standards only with the release of a new version of the library as these revisions were deemed essential.

Fifteen fission product evaluations have been submitted by ORNL. Processing has been completed and materials were sent out for review.

Los Alamos (Wilson, England) will shortly complete a review of the six group delayed neutron constants in response to the action item from the last CSEWG meeting. Hopefully the resulting revisions will be included in the next release of ENDF/B-VI.

The next release of ENDF/B, ENDF/B-VI.6 will be made in the summer 1999.

Formats and Processing:

Both ORNL and ANL report their processing codes for ENDF-6 format data files are operational. They provide important alternatives to the NJOY system (LANL) which for many years was the only fully operational processing code for ENDF-6 format data.

The Task Force on Recommended Constants for use in processing of ENDF data has completed its work. The recommendations are attached to the Formats and Processing Report of the minutes of the last CSEWG meeting.

A meeting on covariance data is being sponsored by CSEWG. D. Smith (ANL) and L. Leal (ORNL) will organize a workshop to be held at BNL April 22-23, 1999. The title of the workshop is "Covariance Matrices: Generation, Formats and Applications in Nuclear Energy Technologies."

#### Data Validation:

Two presentations discussed the effect of the use of the probability table method for the unresolved region in continuous-energy Monte Carlo calculations. The most significant improvements were noted in intermediate systems containing large amounts of  $^{238}\text{U}$ .

Bob MacFarlane (LANL) presented results of his analysis of the long-standing bias when calculating clean fast  $^{238}\text{U}$  reflected critical assemblies. The fact that JENDL-3.2 did not show this bias indicated a problem with the ENDF/B  $^{238}\text{U}$  cross sections. After extensive comparisons, he concluded that the differences were due to the elastic angular distributions for  $^{238}\text{U}$ .

#### Measurements and Basic Science:

The annual reports on nuclear data measurements from U.S. laboratories will no longer be published separately. The eight reports submitted are now appended to this Committee's report.

The data request list formerly maintained by J. Rowlands (Cadache) for NEA has now been assigned to Dick McKnight (ANL) and F. Storrer (Cadache). Dick will be responsible for U.S. input in the future.

Organization of a new evaluation of the neutron standard cross sections is proceeding slowly due to a lack of funding and manpower.

#### NERI Initiative:

Five CSEWG laboratories: ANL, BNL, LANL, NIST and ORNL have submitted a joint 3-year proposal to the Nuclear Energy Research Initiative. If successful, this work will form the basis for an ENDF/B-VII.

#### Next Meeting:

The next CSEWG meeting will be held at Brookhaven National Laboratory from November 2-4, 1999.