

CSEWG Report  
to  
NEANSC Working Group on  
International Evaluation Cooperation  
Aix-en-Provence, France  
16-17 June 1993

The Cross Section Evaluation Working Group (CSEWG) has not met since the Working Group's last meeting at JAERI in May 1992. The next CSEWG meeting will take place 5-7 October, 1993 at Brookhaven National Laboratory. The CSEWG Executive Committee has selected Robert Roussin of ORNL/RSIC to be the chairman of CSEWG for the next two year period while Charles Dunford is on leave from BNL. The major task of the October CSEWG Meeting will be to determine a program of activities for the next few years.

The proposed budget for FY94 for the DOE nuclear data program essentially eliminates the nuclear data measurement program in the United States. The operating budget for ORELA was zeroed. The WNR facility at Los Alamos will be lost due to the closing of LAMPF. The vacuum created by these closings cannot be filled by the remaining facilities at TUNL, Ohio University, and University of Massachusetts at Lowell.

**ENDF/B-VI Evaluations**

The second revision to the ENDF/B-VI library is nearly completed. Three new data evaluations for <sup>14</sup>N, <sup>45</sup>Sc and <sup>127</sup>I are included. Twenty one evaluations have significant improvements in the thermal or resonance energy regions. There are miscellaneous corrections for an additional 16 materials.

The fission product yield evaluation by Tal England et. al. has been completed. The new release contains neutron-induced fission yields for 31 materials and spontaneous fission yields for an additional 9 materials.

There will be 6 additional evaluations in the ENDF High Energy library for neutrons and protons incident on <sup>12</sup>C, <sup>208</sup>Pb and <sup>209</sup>Bi. The lead and bismuth evaluations result from a JAERI-BNL collaboration.

A detailed description of the contents of this release is attached. These evaluations except for <sup>45</sup>Sc are now available from the BNL/NNDC online data service. The distribution of the tapes is awaiting completion of a modification to the <sup>45</sup>Sc(n,p) cross section. There is also a new D-T evaluation from LANL undergoing review and a revised graphite thermal scattering law evaluation from LANL nearing completion.

**Symposium on Nuclear Data Evaluation Methodology**

An International Symposium on Nuclear Data Evaluation Methodology was held

at Brookhaven National Laboratory 12-16 October, 1992. The symposium was attended by 100 experts on nuclear data evaluation, more than 50% of them from countries other than the United States. More than 60 invited and contributed papers were presented making for a very busy week. This symposium was a successor to a similar meeting held in Brookhaven in 1980 following the completion of ENDF/B-V. Several new topics such as charged particle and photonuclear data evaluation, medium energy data evaluation, and computer aided evaluation techniques were added to broaden the scope of the agenda in several important developing areas.

# Tape 127

ENDF/B-VI

Neutron sublibrary

Distributed: July 1, 1993

Tape 127 contains new or revised evaluations for 21 materials. The evaluations for  $^{45}\text{Sc}$  and  $^{127}\text{I}$  are new. The  $^{14}\text{N}$  is revised in the resonance region and extended to higher energies. The Hf isotopes and fission products have been extensively revised in the thermal and resonance regions. These evaluations are a part of Revision 2 and replace corresponding evaluations in the initial release of ENDF/B-VI or in Revision 1.

0725	N-14	Neutron transport, Gamma Production
2125	Sc-45	Neutron transport, Gamma production
4440	Ru-101	Fission product
4443	Ru-102	Fission product
4825	Cd-106	Fission product
4831	Cd-108	Fission product
4837	Cd-110	Fission product
4843	Cd-112	Fission product
4849	Cd-114	Fission product
4855	Cd-116	Fission product
5325	I-127	Neutron transport, Gamma production
6028	Nd-143	Neutron transport
6034	Nd-145	Neutron transport
6243	Sm-150	Fission product
6249	Sm-152	Neutron transport
7225	Hf-174	Neutron transport
7231	Hf-176	Neutron transport
7234	Hf-177	Neutron transport
7237	Hf-178	Neutron transport
7240	Hf-179	Neutron transport
7243	Hf-180	Neutron transport

## Tape 128

ENDF/B-VI

Neutron sublibrary

Distributed: June 3, 1993

Tape 128 contains revised evaluations for 5 materials. Missing sections with the energy release in fission (MT=458) have been added to all evaluations. In addition resonance region improvements have been made for  $^{238}\text{U}$  and  $^{239}\text{Pu}$ . These evaluations are a part of Revision 2 and replace corresponding evaluations in the initial release of ENDF/B-VI or in Revision 1.

9228	U-235	Neutron transport, Gamma Production, Covariances
9237	U-238	Neutron transport, Gamma production, Covariances
9437	Pu-239	Neutron transport, Gamma production
9440	Pu-240	Neutron transport, Gamma production, Covariances
9543	Am-241	Neutron transport, Gamma production, Covariances

## Tape 129

ENDF/B-VI

Neutron sublibrary

Distributed: June 3, 1993

Tape 129 contains new or revised evaluations for 14 materials. The the  $^{59}\text{Co}$  has been revised in the thermal and resonance regions. The other 13 evaluations have minor corrections. These evaluations are a part of Revision 2 and replace corresponding evaluations in the initial release of ENDF/B-VI or in Revision 1.

2725	Co-59	Neutron transport, Gamma production, Covariances
2925	Cu-63	Neutron transport, Gamma production, Covariances
2931	Cu-65	Neutron transport, Gamma production, Covariances
3234	Ge-73	Fission product
9234	U-237	Neutron transport, Gamma production
9349	Np-238	Neutron transport
9449	Pu-243	Neutron transport, Gamma production
9640	Cm-245	Neutron transport, Gamma production
9643	Cm-246	Neutron transport, Gamma production
9646	Cm-247	Neutron transport, Gamma production
9855	Cf-250	Neutron transport, Gamma production
9858	Cf-251	Neutron transport, Gamma production
9861	Cf-252	Neutron transport, Gamma production
9864	Cf-253	Neutron transport (total, elastic, fission, capture only)

## Tape 130

ENDF/B-VI      Neutron FPY sublibrary      Distributed: June 1, 1993

Tape 130 contains evaluations of neutron induced fission product yield data for 13 materials. The materials included are  $^{227,229,233}\text{Th}$ ,  $^{231}\text{Pa}$ ,  $^{232,233,234,235,236,237,238}\text{U}$  and  $^{237,238}\text{Np}$ .

## Tape 131

ENDF/B-VI      Neutron FPY sublibrary      Distributed: June 1, 1993

Tape 131 contains evaluations of neutron induced fission product yield data for 18 materials. The materials included are  $^{238,239,240,241,242}\text{Pu}$ ,  $^{241,242m,243}\text{Am}$ ,  $^{242,243,244}\text{Cm}$ ,  $^{245,246,248}\text{Cm}$ ,  $^{249,251}\text{Cf}$ ,  $^{254}\text{Es}$  and  $^{255}\text{Fm}$ .

## Tape 210

ENDF/B-VI      Decay data sublibrary      Distributed: June 1, 1993

Tape 210 contains a  $^{98}\text{Tc}$  evaluation. The only change is to correct the material (MAT) number.

## Tape 211

ENDF/B-VI      Spont. FPY sublibrary      Distributed: June 1, 1993

Tape 211 contains evaluations of spontaneous fission product yield data for 9 materials. The materials included are  $^{238}\text{U}$ ,  $^{244,246,248}\text{Cm}$ ,  $^{250,252}\text{Cf}$ ,  $^{253}\text{Es}$  and  $^{254,255}\text{Fm}$ .

## Tape 802

ENDF/HE-VI

Neutron sublibrary

Distributed: June 1, 1993

Tape 802 consists of three high energy neutron reaction evaluations providing data up to 1 GeV incident energy.

0625	C-12	High energy
8237	Pb-208	High energy
8325	Bi-209	High energy

## Tape 803

ENDF/HE-VI

Proton sublibrary

Distributed: June 1, 1993

Tape 803 consists of three high energy proton reaction evaluations providing data up to 1 GeV incident energy.

0625	C-12	High energy
8237	Pb-208	High energy
8325	Bi-209	High energy