

Mandate

Working Party on International Nuclear Data Evaluation Co-operation (WPEC)

- Chair:** Michal Herman, ENDF project (USA)
- Member(s):** Representatives of the co-operating nuclear data evaluation projects, nominated by the projects
- Date of creation:** 30 October 1989
- Date of expiration:** 30 June 2019

Mandate:

- Status of the NEA Nuclear Science Committee Projects and their Evolution in 2007
[NEA/SEN/NSC(2006)2]
- Summary Record of the 17th Meeting of the Nuclear Science Committee (NSC)
[NEA/SEN/NSC(2006)3]
- Approved at the 20th Meeting of the Nuclear Science Committee [NEA/SEN/NSC(2009)3]
- Extended at the 21st Meeting of the Nuclear Science Committee [NEA/NSC/DOC(2010)3]
- Revised and extended at the NEA Nuclear Science Committee Bureau in December 2010
[NEA/NSC/DOC(2010)14]
- Revised and extended at the 24th Meeting of the Nuclear Science Committee in June 2013
[NEA/NSC/DOC(2013)2]
- Revised and extended at the 27th Meeting of the Nuclear Science Committee in June 2016
[NEA/SEN/NSC(2016)2]

Extract from document [NEA/SEN/NSC(2016)2] (forthcoming)

Purpose, scope and membership

The goal of the Working Party is to improve the quality and completeness of evaluated nuclear data available for use in science and technology and to promote the efficient use of available resources through international collaboration.

The Working Party will consist of up to five representatives of each of the following four nuclear data evaluation projects: ENDF (United States), JEFF (NEA Data Bank member countries), JENDL (Japan), RUSFOND/BROND (Russia), as well as up to five representatives of non-NEA nuclear data evaluation projects, such as CENDL or TENDL. The participation from projects in non-NEA member countries will be channelled through the Nuclear Data Section of the International Atomic Energy Agency (IAEA). At least one member of each group will be a representative of the nuclear data measurement community, and another one a representative of the nuclear application community.

A Working Party chairperson shall be elected for a two-year period, with possible yearly extensions; the guiding principle being an alternating chairmanship between the ENDF, JEFF, JENDL and RUSFOND/BROND projects. Eligible candidates are representatives of the evaluation projects in NEA member countries.

Objectives

The Working Party will promote the exchange of information on all nuclear data related topics (i.e., evaluation, measurement, theory/modelling and validation) and foster the adoption of best practices. The Working Party will provide a framework for co-operative activities between the participating projects. The Working Party will assess the needs for nuclear data improvements and address those needs by initiating joint evaluation and/or measurement efforts. The improvements will be reflected in all major evaluated data files and will gradually help eliminate inconsistencies in these files.

In the three-year period, the Working Party will set out to complete the following tasks:

- Recommend improvements in evaluated nuclear data (including covariance data) for fission and fusion applications, in response to indications from sensitivity and uncertainty analysis, integral validation/assimilation activities and new experimental/theoretical information.
- Recommend updates in codes, formats, methods and practices for further improving the nuclear data evaluation process and streamlining their processing and use.
- Monitor and update the “High Priority Request List for Nuclear Data” (HPRL) to stimulate specific nuclear data measurement and evaluation activities.
- Address any other emerging important nuclear data needs.

The Working Party will liaise closely with other Nuclear Science Committee activities to ensure that data needs of nuclear science applications are properly addressed.

Deliverables

- An up-to-date version of the “High Priority Request List for Nuclear Data”, accessible through the NEA internet web pages.
- A report on Prompt photon production from fission products.
- A report on Processing of covariance data in the resonance region.
- A report on Scattering angular distribution in the fast range.
- A report on Evaluation of experimental data in the resolved resonance region.
- A report on fission yield evaluation methodologies and recommended improvements.
- A report on the development of a modern nuclear database structure beyond the current ENDF format.
- A report on methods and approaches to provide feedback from nuclear and covariance data adjustments to evaluators and experimentalists.
- A report on a joint assessment of six key isotopes – ^1H , ^{16}O , ^{56}Fe , $^{235,238}\text{U}$, ^{239}Pu – in the framework of a pilot project of a Collaborative International Evaluated Library Organization – CIELO.
- A report on improving nuclear data accuracy of ^{241}Am and ^{237}Np capture cross-sections.
- A report on Thermal Scattering Kernel $S(a,b)$: Measurement, Evaluation and Application.