

WPEC Expert Group on the High Priority Request List for Nuclear Data

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| Chair: | Dr. Arjan PLOMPEN |
| Members: | Representatives of the co-operating nuclear data evaluation projects (ENDF, JEFF, JENDL, ROSFOND/BROND) or NEA member countries |
| Observers: | International Atomic Energy Agency (IAEA), <i>By agreement</i> Chinese Evaluated Nuclear Data Library (CENDL) Project, <i>By invitation</i> |
| Date of creation: | May 1991 |
| Duration: | June 2016 |
| Mandate: | |

- Agreed at the 16th meeting of the Working Party on International Nuclear Data Evaluation Co-operation [NEA/SEN/NSC/WPEC(2004)2]
- Extended mandate as a part of WPEC activities at the 23rd meeting of the Nuclear Science Committee in June 2012 [NEA/SEN/NSC(2012)3]
- Revised and extended at the meeting of the NEA Nuclear Science Committee in June 2013 [NEA/NSC/DOC(2013)2]
- Revised and extended at the 26th meeting of the Working Party on International Nuclear Data Evaluation Co-operation [NEA/SEN/NSC/WPEC(2014)2] and endorsed by the NEA Nuclear Science Committee in June 2014 [NEA/SEN/NSC(2014)X]

Purpose, scope and membership

The concept of a nuclear data request list has a long history in applied nuclear science. The concept is that if requests from applied users of data are collected in a convenient location it should provide a stimulus to measurers, modellers, and evaluators to undertake work that could lead to certain requests becoming satisfied.

A revised High Priority Request List (HPRL) for nuclear data needed for applications has been in existence under the auspices of the OECD Nuclear Energy Agency (NEA) for several years. This List provides a point of reference for nuclear data stakeholders and developers and has led to many new initiatives in nuclear data measurement, evaluation and validation. Its effectiveness in stimulating new measurements, evaluations and verification actions required to meet the expressed needs is well established.

A standing expert group is essential to maintain the HPRL as a point of reference in nuclear data research and development. The expert group will consist of at least three representatives from each data project: one from the data user, one from the evaluation and validation community and one from the experimental community. The expert group may have additional representatives from the IAEA Nuclear Data Section, as well as countries not represented in the above mentioned projects.

The HPRL will reflect the actions undertaken by WPEC and will help guide future activities. The expert group will report to WPEC.

Objectives

The expert group is responsible for managing the activities related to the HPRL, in particular for guaranteeing that the entries are up-to-date and well-motivated by current interests in the field of nuclear energy. The group is also responsible for stimulating follow-up to the entries and collecting the feedback provided by any of the related activities that may further the resolution of a request. The expert group will work mainly by electronic mail exchanges. Physical meetings will be held typically once a year.

The HPRL is organized as follows:

1. The List consists of one list with truly high priority requests, a list with general requests and a list with special purpose quantities divided in categories. This third list is an extension to the present List.
2. Stringent criteria are applied for entries on the lists. These will be evaluated by the Expert Group that will take the final decision for adopting a request.
3. A “high priority request” is justified by quantitative sensitivity studies (or the equivalent) and sufficiently documented.
4. A “general request” is well motivated for a specific quantity on a specific nucleus and is documented, but lacks a detailed backing by a sensitivity analysis or an impact study.
5. A “special purpose request” in a well-defined category is of interest to a recognized important subfield of applied nuclear science for which it is essential to stimulate new activity. Such a request may not satisfy the criteria as in the case of points 3. and 4.

The request lists will be subjected to periodic review to monitor progress and determine whether each individual request should continue to be included in these lists.

Deliverables

- A report on the status of all requests describing completed activities and outlook.
- An up-to-date online version of the “High Priority Request List for Nuclear Data”.