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**NUCLEAR ENERGY AGENCY  
NUCLEAR SCIENCE COMMITTEE**

**Working Party on International Nuclear Data Evaluation Co-operation**

**Expert Group on the High Priority Request List for Nuclear Data (EGHPRL)**

**MANDATE**

Dr. Michael Fleming  
+33 1 73 21 28 22  
michael.fleming@oecd-nea.org

**JT03463822**

## Revised Mandate

### WPEC EXPERT GROUP ON THE HIGH PRIORITY REQUEST LIST FOR NUCLEAR DATA (EGHPRL)

**Members:** All NEA member countries

**Full Participant:** European Commission

*Under the NEA Statute*

**Observer (International Organisation):** International Atomic Energy Agency (IAEA)  
*By agreement*

**Date of creation:** 30 May 1991

**Start of current mandate:** 30 June 2018

**Duration:** 30 June 2022

### Mandate

- Agreed at the 16<sup>th</sup> meeting of the Working Party on International Nuclear Data Evaluation Co-operation [[NEA/SEN/NSC/WPEC\(2004\)2](#)]
- Extended as a part of WPEC activities at the 23<sup>rd</sup> 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 26<sup>th</sup> 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\(2014\)2](#)]
- Revised and extended at the 28<sup>th</sup> meeting of the Working Party on International Nuclear Data Evaluation Co-operation [[NEA/SEN/NSC/WPEC\(2016\)2](#)] and endorsed by the 27<sup>th</sup> NEA Nuclear Science Committee in June 2016 [[NEA/SEN/NSC\(2016\)2](#)]
- Revised and extended at the 30<sup>th</sup> meeting of the Working Party on International Nuclear Data Evaluation Co-operation [[NEA/SEN/NSC/WPEC\(2018\)2](#)] and endorsed by the 29<sup>th</sup> NEA Nuclear Science Committee in June 2018 [[NEA/SEN/NSC\(2018\)6](#)]
- Revised and extended at the 32<sup>nd</sup> meeting of the Working Party on International Nuclear Data Evaluation Co-operation [[NEA/SEN/NSC/WPEC/DOC\(2020\)11](#)]

## Background and scope

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 being satisfied.

A 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 many 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 in the nuclear data community. The results of completed requests are successfully used to increase the accuracy and reduce the uncertainty of different applications.

Therefore, the Expert Group on the High Priority Request List for Nuclear Data (EGHPRL) was established to maintain the HPRL as a point of reference in nuclear data research and development. The HPRL will reflect the actions undertaken by the Working Party on International Nuclear Data Evaluation Co-operation (WPEC) in this field, and will help guiding future activities. The EGHPRL reports on its activities to the WPEC.

## Objectives

The EGHPRL 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 and other nuclear applications. The Expert 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.

In order to achieve the EGHPRL objectives, representatives from co-operating nuclear data evaluation projects of NEA member countries (such as the Evaluated Nuclear Data File [ENDF], Joint Evaluated Fission and Fusion Nuclear Data Library [JEFF], Japanese Evaluated Nuclear Data Library [JENDL] and Russian Library of Evaluated Neutron Data Files [ROSFOND/BROND]) will be invited to attend the EGHPRL meetings, including:

- a nuclear data user from the nuclear applications community;
- an evaluation and validation expert; and
- an expert in experimental measurements.

The EGHPRL will also be co-operating with the IAEA (specifically, the IAEA Nuclear Data Section), which participates as an Observer.

## Working methods

The EGHPRL will work mainly by electronic mail exchanges. Physical meetings will be held typically once a year.

The HPRL is organised 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.
2. Stringent criteria are applied for entries on the lists. These will be evaluated by the EGHPRL 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 recognised 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 above.

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**

The deliverables of the EGHPRL are the following:

- an up-to-date publication on the status of all requests describing completed activities and outlook; and
- an up-to-date online version of the “High Priority Request List for Nuclear Data”, including new requirements for fission reactors and other relevant applications.