



Nuclear Energy Agency

NEA/NSC/WPEC/DOC(2019)3

For Official Use

English text only

24 September 2019

**NUCLEAR ENERGY AGENCY
NUCLEAR SCIENCE COMMITTEE**

Working Party on International Nuclear Data Evaluation Co-operation

Fifth Meeting of the Expert Group on the High Priority Request List for Nuclear Data (EGHPRL)

SUMMARY RECORD

**25 June 2019
NEA Headquarters
Boulogne-Billancourt, France**

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

JT03451513

OECD/NEA Nuclear Science Committee

**Working Party on International Nuclear Data Evaluation Co-operation (WPEC)
Fifth Meeting of the Expert Group on the High Priority Request List for Nuclear
Data (EGHPRL)**

NEA Headquarters Room BB12
46 quai Alphonse Le Gallo, 92100 Boulogne-Billancourt, France

25 June 2019

SUMMARY RECORD

1. Welcome

The Chair, **E. Dupont**, welcomed the participants (see *Appendix 1*) and the WPEC Secretariat, **M. Fleming**.

2. Adoption of the agenda

The agenda (see *Appendix 2*) was adopted without modification.

3. Review of membership and mailing lists

The formal EG membership was reviewed and re-conducted without any change. Participants were reminded about the two mailing lists “wpec-sgc@oecd-nea.org” and “hpri@oecd-nea.org”, used respectively for internal discussions and for communication with the wider nuclear data community. The NEA and EG coordinator should be informed of any necessary update concerning these administrative items.

4. Review of HPRL system

The recent updates in the HPRL tools were reviewed,

- Direct access to the subcategories SPQ-dosimetry and SPQ-standards;
- Upload of the contents of the "Feedback table" approved in May 2018 (status and recent references of each entry);
- Archiving of 8 entries with "Completed" status (as agreed in May 2018);
- Addition of the latest publications to the list of recent references for the corresponding entries.

Additional updates still have to be discussed,

- Implementation of the "Status" and "Status date" fields in the database, search engine and search output;
- Possibility to have multiple requesters for a given entry.

These new features could be implemented in the context of the renewal of the NEA website which should be upgraded to a Content Management System (CMS) by the end of 2019. Progress in the development of a demo HPRL website and database based on CMS was presented by NEA. The following list of suggestions discussed during and after the meeting has been compiled.

- Add an example of summary table to one of the detailed entries already prepared;
- Move the "Status" text field to a keyword field with 3 possible codes ("Work in progress", "Pending new evaluation or validation", "Completed"), add this Status information to the summary table together with the Status date ("Archived date" at present);
- Add columns to the sortable table of requests: ID, Type, Target, Reaction, Quantity, Energy, Status, Date;
- Add the filtering fields above the table for ID, Type, Target, Reaction, Quantity, Status;
- Keep the CMS categories (HP, GR, SPQ) as presented during the meeting, as this can be useful to have direct access to list of results related to these types of requests;
- Provide links to EXFOR, evaluated data, and JANIS Book (when possible) on the basis of Target, Reaction, and Quantity fields;
- Consider the possibility to host a CMS-based HPRL Newsletter to improve outreach;
- The current HPRL webpages have been cited in publications and should be redirected towards the new webpages;
- The layout of the CMS-based detailed entries should allow straightforward insertion in future NEA reports;
- Provide editing rights in HPRL-CMS to EG members or at least to the Coordinator.

5. Review of updates to HPRL contents

The recent updates in the HPRL were reviewed,

- 2 new high priority requests: Bi-209(n,g) branching ratio (production of Po-210); first resonance of Pu-239(n,tot) cross section;
- 1 new SPQ-dosimetry request to improve Pu-239(nth,f) PFNS high-energy tail (resulting in 10 individual requests to measure SACS of well-known high-threshold dosimetry reactions in clean Pu-239 PFNS);
- 1 update of the old 11G entry about the Pu-239 alpha ratio.

Discussions have started for additional request candidates,

- Update of the old 9G entry about U-233 nubar and capture cross section;

- Medical applications;
- SG46 initiative on target accuracy requirements and update of SG26 recommendations related to priority needs.

The following changes in the entries status have been discussed and proposed to WPEC,

- From "Work in progress" to "Pending new evaluation or validation"
 - ID3,4: PFGS of Pu-239 and U-235
 - ID21: Am-241(n,f)
 - ID14: Pu-242(n,g)
 - ID29: Na-23(n,n')
- From "Work in progress" to "Completed"
 - ID12: U-235(n,g)

Suggestions have been made to better quantify the status of "Completed" entries and to add a few sentences explaining EG decision. For the latter case (ID12), the request was related to the issue in the keV region identified by the JENDL project in 2003, studied in WPEC/SG29, and now solved in all major libraries (JENDL-4.0, JEFF-3.3, ENDF/B-VIII.0).

6. Any other business

The current EG mandate runs until June 2020 with the following two 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"

The second deliverable is just business as usual, while the first one may require a significant amount of work. The two following proposals have been discussed and presented to WPEC,

- For the mandate: deliver a report to NEA essentially based on the ND2019 paper with an appendix consisting of up-to-date HPRL web pages, including the main recent references.
- For HPRL visibility and citations, and definitely more valuable for the authors, submit a paper in a refereed scientific journal, e.g. *Nuclear Data Sheets Special Issue on Nuclear Reaction Data*.

The ND2019 paper is under preparation and will be circulated to the co-authors and EG members by mid-July. The next meeting should be organised at NEA during the next WPEC week, May 11-15, 2020.

The participants collected numerous action items during the meeting, which are summarised in **Appendix 3**.

APPENDIX 1

List of participants to the Fifth Meeting of the Expert Group on the High Priority Request List for Nuclear Data (EGHPRL)

	First Name	Last Name	Country	Notes
1	Manuel	BOSSANT	NEA	
2	Yaron	DANON	UNITED STATES	
3	Emmeric	DUPONT	FRANCE	Chair
4	Luca	FIORITO	BELGIUM	
5	Michael	FLEMING	NEA	Secretariat
6	Osamu	IWAMOTO	JAPAN	
7	Nobuyuki	IWAMOTO	JAPAN	
8	Atsushi	KIMURA	JAPAN	
9	Luiz	LEAL	FRANCE	
10	Alexandru	NEGRET	ROMANIA	
11	Chris	PERFETTI	UNITED STATES	
12	Arjan	PLOMPEN	BELGIUM	
13	Gerald	RIMPAULT	FRANCE	
14	Stanislav	SIMAKOV	GERMANY	
15	Vladimir	SOBES	UNITED STATES	
16	Alejandro	SONZOGNI	UNITED STATES	
17	Morgan	WHITE	UNITED STATES	
18	Haicheng	WU	CHINA	Remote
19	Kenji	YOKOYAMA	JAPAN	
20	Michael	ZERKLE	UNITED STATES	

APPENDIX 2

OECD/NEA Nuclear Science Committee

Working Party on International Nuclear Data Evaluation Co-operation (WPEC) Fifth Meeting of the Expert Group on the High Priority Request List for Nuclear Data (EGHPRL)

NEA Headquarters Room BB12
46 quai Alphonse Le Gallo, 92100 Boulogne-Billancourt, France

25 June 2019

AGENDA

- | | |
|--|-------------------|
| 1. Welcome and introductions | Chair |
| 2. Adoption of the agenda | All |
| 3. Review of membership and mailing lists | Chair |
| 4. Review of HPRL system | Chair, NEA |
| 5. Review of updates to the HPRL | Chair |
| 6. Any other business | All |

APPENDIX 3

List of actions agreed at the Fifth Meeting of the Expert Group on the High Priority Request List for Nuclear Data (EGHPRL)

Standing actions

- All: stay in touch with end-users with the aim to formalize new priority requests.
- All: inform NEA and Coordinator of any necessary update in membership and mailing lists.
- All: inform NEA and Coordinator of any necessary update in the list of publications and activities related to HPRL entries.

2019 July-August

- NEA: upload meeting slides and release the summary record.
- E.Dupont: circulate a draft of the ND2019 paper by mid-July.
- E.Dupont: contact requesters to confirm new entry status proposed at this meeting, especially for the "Completed" entry of U-235(n,g); check also with IAEA about the current status of the INDEN program.
- E.Dupont: draft a few sentences to justify the status of each "Completed" entry.
- E.Dupont: finalize the review procedure for U-233 nubar (and possibly U-233 capture or alpha ratio).
- E.Dupont: contact R.Capote to discuss which priority requests should be extracted from the Summary Report of the IAEA Technical Meeting on Nuclear Data for Medical Applications (INDC(NDS)-0776, May 2019); organize the review of these priority requests that could be adopted in a dedicated SPQ-medical subcategory.
- E.Dupont: contact I.Porras to resume discussion on updated requests for n-induced reactions of interest for medical applications.

2019 September-October

- NEA: finalise the demo HPRL website and database based on CMS taking into account EG feedback (see the initial list of suggestions in the minutes).
- NEA: upload the updated entry for the Pu-239 alpha ratio and archive the old one (11G).
- NEA: pending SG-C approval, upload the updated entry for the U-233 nubar (and possibly U-233 capture or alpha ratio) and archive the old one (9G).

2019 December

- E.Dupont: circulate a draft proposal for the NEA report (deliverable of current mandate)

2020

- E.Dupont: organize drafting of an HPRL paper in a refereed journal (note that the final version should be available in May 2020 for a publication in Nuclear Data Sheets special issue of January 2021)