NEA Data Bank (DB) Progress Report 2013-2014

1. Organization, Staff

2. Contribution to EXFOR

3. JEFF Project, Files

4. JANIS Software

NB: The full report is available as document P2014-08

1. Organization, Staff

- The manpower allocated to nuclear data (ND) activities is shared among 4 staffs for a total of about 1.7 man-year:

- DB Nuclear Data Services (~0.7 man-year) & JEFF (~0.4 man-year): E. Dupont, F. Michel-Sendis

- DB Software (~0.3 man-year): N. Soppera, M. Bossant

- Nucl. Sci. WP on ND Evaluation Cooperation – WPEC (~0.3 man-year): E. Dupont

- One of the staffs (E. Dupont) will be leaving at the end of August after 5 years of services and will be replaced as soon as possible.

- A new DB Task Force (TF) was established to discuss future NEA DB activities and prepare the next NEA strategic plan 2017-2022.

2. EXFOR – Experimental nuclear data

Update and maintenance of the EXFOR database (areas 2 and O)

- Full coverage of experimental results published in open literature

- Revision of old entries is a significant part of the activity

- Peer-review of all transmissions using JANIS

In 2013, the NEA DB contributed 328 entries to EXFOR

- 258 entries for neutron data (35 new + 223 updated)

- 70 entries for charged-particle data (69 new + 1 updated)

In 2014 (1st quarter), the NEA DB has prepared 311 entries

- 173 entries for neutron data (19 new + 154 updated)

- 138 entries for charged-particle data (49 new + 89 updated)

See the NEA DB Progress Report (P2014-08) for more detailed stats

2. EXFOR – Experimental nuclear data

JANIS Trans Checker

- Peer-review of all NRDC prelim files
- Analysis of JANIS import log for the EXFOR master (cf. WP2014-30)
- Available online at www.oecd-nea.org/janisweb/trans-checker

EXFOR checking ("post-SG30" activities)

Verification methods developed within WPEC Subgroup 30 have been implemented at the Data Bank to further improve the quality of EXFOR

- Statistical tests: completed (cf. NEA News, Vol. 29, No 1, June 2011)
- Comparison with evaluated data: completed (contribution to ND2013)
- In-depth review of all threshold activation cross sections (ongoing)

3. JEFF Project, Files

JEFF-3.2 General Purpose File was released in March 2014

JEFF-3.2 Special Purpose Files to be released by the end of 2014

- Decay Data update during the summer
- Fission Yields update by November
- Activation data based on EAF-2010
- Proton and deuteron libraries based on TENDL

Beyond JEFF-3.2

- Business as usual?
- A new separately funded project?
- More technical contributions from DB staff?

This is under discussion with JEFF/SCG, DB TF, NSC EG and NEA

4. JANIS – Nuclear data display software

JANIS 4.0 was released online (Webstart) and on DVD in Sept.-Oct. 2013

- New function to load user's data in simple text format
- New function to save/restore JANIS state (plots, tables, settings…)
- Web extension (JANIS Web)

JANIS Books are updated on a regular basis

- Exp. and evaluated cross-sections for incident n, p, d, t, h, α, γ
- Dynamic version based on JANIS Web
- About 5000 plots, see www.oecd-nea.org/janis/book

Online Nuclear Data Services

- Legacy services discontinued in the second half of 2013
- New services are based on JANIS Web and associated databases

Thank you for your attention