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MEMO CP-N/70

DATE: 15 May 2008
TO: See distribution list below
FROM: H. Henriksson
SUBJECT: CINDA corrections and dictionary proposals, dict. 52, 144

Dear colleagues,

A few corrections to the dictionaries are needed to be consistent with what EXFOR and CINDA contains at the moment. Proposed addition for dictionary 144:

```
3,JEFF-          2ZZZNEA Joint Evaluated Fission and Fusion (JEFF) Library,  
                  compiled at the OECD Nuclear Energy Agency Data Bank
```

Additional reader codes (dictionary 52):

```
X4              Automatically generated CINDA lines from EXFOR
```

It is also needed to change the dictionary format, so that it allows for two-character codes, as defined in the new CINDA format. Therefore, it is suggested to correct the dictionary manual so that the reader code has the format 'A2'.

Several other reader codes found in CINDA have been added to dictionary 52 (see appendix) without explanation at the moment.

A recent verification of the database showed that some misunderstandings between data centres had caused several mistakes in CINDA. Because of that, it was decided to make a cleanup of the database and retransmit the complete database. Below are the steps taken in preparing the new complete backup file, to be loaded at all interested nuclear data centres. Below are a few issues regarding corrections of CINDA listed:

- A. Mistakes in the master (backup) CINDA file
- B. Unique key definition.
- C. Suggested procedure of the exchange of new entries for CINDA

A. Mistakes in the master CINDA (backup) file, mainly from original (old) CINDA

Examples:

- *EXFOR reference subaccession number is 001:* (EXFOR30291.001 and several others)
- *Bad report code:* AHP,TO,BE,PUBL; CNP,TO,BE,PUBL; NP,TO,BE,PUBL
- *Unknown Institute (eg. 4CCPEPA, 4RUSIJI)*
- *Energy min larger than Energy max*

- *Bad Abstract code or invalid Conference code. Several reference codes are wrong in the CINDA database (for example C.75KIEV instead of C,75KIEV):*

```
92233 N,F          DE 4CCPNIR 475 52EX42.53-02      C.75KIEV,5,120      197506Andrejchuk+
20060622SFN
```

B. The 'Unique key' definition

The 'unique key' of a CINDA line is defined by the Z, A and state of target nuclide, reaction, quantity, institute, block number and sequence number. This is used as the ID of one CINDA entry (one line) and cannot be changed with a modification operation. (Note, that the quantity may be blank). The only way to change information within the Unique key is the delete the entry and to add a new entry with the correct information.

C. Suggested procedure of the exchange of new entries for CINDA

The safest procedure is to send all new entries for CINDA to the NDS for inclusion into batches. The automatic EXFOR-to-CINDA batches produced are already done internally at the NDS for all areas, which means that by sending NDS all new CINDA inputs, they would be included in a batch from NDS later on.

Suggested procedure for new CINDA entries from other centres than the NDS:

- 1 Prepare and collect a batch into a file (NEA001...)
- 2 Send this file to NDS with proposed block and sequence number (ID) starting with 1000 for area 1, 2000 for area 2 and so on.
- 3 NDS loads the file and compares with database. If something is wrong, or a duplication is found, the CINDA entry should be flagged and added to a log file (such as the upd-files produced in the past by NDS during the import to CINDA from EXFOR).
- 4 NDS sends the log-file and a proposed CINDA batch (depending on the upd file) to responsible centre (e.g. NEA for area 2) for verification.
- 5
 - a. Corrected batch is sent back to NDS.
 - b. NDS considers the batch to be fine after one month (or another time span).
- 6
 - a. NDS sends batch and load the database with the entries.
 - b. A master 'backup' file is produced, so that the complete CINDA database can be updated.
- 7 All centres will load the batch in their database.

This procedure is almost the same for the imported CINDA entries from EXFOR (the automatic x42c2k files) from point 4 to 7, except that it will be needed to delete all CINDA entries previously loaded with the CINDA reader code 'X4' from dictionary 52, before loading the EXFOR imported CINDA entries. However, the backup-

files can be used to load CINDA at the different nuclear data centres.

Best wishes,
/ Hans Henriksson

Appendix: Dictionary 52

Reader codes found in CINDA that are missing in dictionary 52:

TRA 200805 -	Unknown
TRA 200805 .	Unknown
TRA 200805 /	Unknown
TRA 200805 1	Unknown
TRA 200805 =	Unknown
TRA 200805 A	Unknown
TRA 200805 C	Unknown
TRA 200805 D	Unknown
TRA 200805 G	Unknown
TRA 200805 H	Unknown
TRA 200805 I	Unknown
TRA 200805 K	Unknown
TRA 200805 P	Unknown
TRA 200805 Q	Unknown
TRA 200805 R	Unknown
TRA 200805 T	Unknown
TRA 200805 U	Unknown
TRA 200805 V	Unknown
TRA 200805 X	Unknown
TRA 200805 X4	Automatically generated CINDA lines from EXFOR