**Nuclear Data Section**

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**Memo CP-D/1011**

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**To:** Distribution

**From:** N. Otsuka, N. Soppera

**Subject:** **Revisions of EXFOR Formats Manual**

**Page 6.2 – Nuclide and compound symbol other than an elemental symbol**

The current manual mentions the symbol S in the Z-S-A-X format is defined in Dictionary 8, but we also use particle symbols (e.g., AP for anti-proton). We propose the addition of “or particle” and deletion of “(Dictionary 8)” as follows:

**Coding of nuclides and compounds**

Nuclides appear in the coding of many keywords. The general code format is Z-S-A-X, where:

*Z* is the charge number; up to 3 digits, no leading zeros

*S* is the element or particle symbol; 1 or 2 characters ~~(Dictionary 8)~~(\* is used for super-heavy elements that do not have element symbols)

**…**

Valid nuclide codes are given in Dictionary 227 (see EXFOR/CINDA Dictionary Manual).

**Page 7.11 – Trailing comma in code field of ERR-ANALYS**

The current manual allows trailing comma in the coded information of ERR-ANALYS except for the correlation property field like (ERR-1,10,). To prevent it, we propose (1) addition of a sentence “The absence of any field must be indicated by including the separating comma; trailing commas are not included.” before introduction of the heading field, and also deletion of a similar sentence in the description of the correlation property field.

**ERR-ANALYS**

…

2. The coded information is of the form: (heading, minimum value, maximum value, correlation property) free text. The absence of any field must be indicated by including the separating comma; trailing commas are not included.

Heading Field.

…

Maximum Value Field

…

Correlation Property Field Contains one of the following correlation property flags: U: Uncorrelated F: Fully correlated P: Partially correlated C: Correlated (when information is insufficient to determine F or P) This field is optional. It may be given only when authors give the proper information in the publication. ~~If this field is not given, the trailing comma is omitted.~~

**Page 7.2 – Presence of keywords**

The current manual mentions

* REACTION
* One of METHOD, FACILITY, ANALYSIS or DETECTOR

must be present in either subentry 001 or in all other subentries. We do not expect these keywords when supplemental information (e.g., a large table of resolution/response function or incident particle spectrum) is given in the subentry. We propose to add an exception like “except when SUPPL-INF is present” for these keywords. We also have to add the new keyword SUPPL-INF in this table.

|  |  |  |
| --- | --- | --- |
| **Keyword** | **Presence of keyword is obligatory** | **Obligatory with data heading** |
| … | … | … |
| Data specification  REACTION  RESULT | always except when SUPPL-INF is present  when a code exists |  |
| … | … | … |
| Physics  INC-SOURCE  INC-SPECT  SAMPLE  SUPPL-INF |  |  |
| METHOD  FACILITY  ANALYSIS  DETECTOR | one of these is obligatory except when SUPPL-INF is present |  |
| … | … | … |

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