Memo 4C-3/233

To: Distribution   1979-04-12

From: O. Schwerer *O. Schwerer*

Subject: Errors in Exfor TRANS tapes
(in particular TRANS-2048, 2049, 4033, 4034)

Usually we communicate errors which we found in TRANS tapes only
to the originating center. We would however like to draw your special
attention to a number of error-types that occurred repeatedly. Since
most of them disturb our indexing and other programs, we had to correct
them at NDS before the TRANS tapes could be merged into the master file.
We would therefore like to ask the Exfor compilers to keep the following
examples in mind:

A.   Errors in REACTION coding

1) The isomeric-state-extensions -G, -M, -M1, -M2 are often used incor-
rectly. They may be used only for isomeric states (see Lexfor
"Isomeric States"), but not for "ordinary" excited levels. -G for
the ground state should be used only if the nuclide has a metastable
state.
(Errors occurred p. ex. in entries 20801, 20822)

2) In case of REACTION combinations, the following rules should be kept
in mind (Manual p. VIII.R.7: REACTION, Reaction combinations):
"A reaction unit may not be broken for continuation on the next line.
The separator should appear last on any line, with the first parenthe-
sis of the next reaction-unit beginning in column 12 of the next line."
(Errors occurred p. ex. in entries 20800.002, 20801.012, 20815,
20822.004)

3) If an isomeric cross section is given, p. ex.

$$(67-H\emptyset-165(N,2N)67-H\emptyset-164-M,,SIG)$$

the PARTIAL modifier "PAR" must not be used. This applies also for
the partial reaction to the ground state.
(Errors occurred p. ex. in entries 20802, 20811)

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4) The REACTION string must not contain any "decimal" points, neither in the form

$$(26-FE-58(.N,O) \dots)$$

$$\text{nor} \quad (66-DY-161.(N,EL) \dots).$$

(Occurred p. ex. in TRANS 4033, 4034, before correction by NDS)

5) In REACTION formalism, resonance-energy, spin and momentum L of resonances are coded ...(N,O),,EN), ...(N,O),,J) and ...(N,O),,L) respectively, without the modifier 'RES'.
(Errors occurred p. ex. in TRANS-4033, 4034 before correction by NDS)

B. Errors in the structure of entries

6) Data defined under REACTION must not be given in the COMMON section.
(Occurred in TRANS 4033, 4034. Was not corrected by NDS)

7) Many errors occur in:

a) the values of the N1 and N2 numbers of the system identifiers

b) the positions of DATA fields (field 2 starts in col. 12; must not start in col. 11!)

(Errors occurred e.g. in TRANS 4033 before correction by NDS)

8) If more than 6 columns are given, each "data line" must have a continuation record, even when no data are given for the columns no. 7, 8 etc. If, e.g., 7 columns are given, column no. 7 being "FLAG" which occurs only in one single data line, all other data lines must have a blank continuation record. (See EXFOR manual page V.1)
(Errors occurred in TRANS 4034 before correction by NDS)