MEMORANDUM 4C-2/49

Date :   11th February 1974

From :   Anton Schofield

Subject :   Comments on EXFOR tapes

1.   This memorandum reports errors found in course of the conversion
      of EXFOR tapes   1013 to 1022,
                            3009 to 3012,
                            4006 to 4013
      to the N.D.D. format.
      Formal errors found by the checking program are reported in another
      Memo for tapes   1020 to 1022,
                            3011 and 3012.

2.   Retransmission of corrected codes : (Ref : MEMO 4C-4/23).
      In view of bringing retransmissions down to a minimum and in
      accordance with a decision taken at the last 4-Centre meeting,
      the NDCC considers that retransmissions of EXFOR Subentries
      containing only corrections of obsolete codes need not be made. The
      NDCC will nevertheless continue to mention obsolete codes
      automatically detected in incoming tapes, so that the corrections
      may be included in subentries retransmitted for other reasons.

Distribution

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3. <u>Comments on EXFOR tapes :</u>

No comments on TRANS 1015 were added to those already
mentioned in MEMO 4C-2/45. Comments on other tapes
follow :

<u>TRANS 1013</u>

10112.All   ISO-QUANT
                   All (INL), (INL,DA) should be (INL,,PAR),
                   (INL, DA, PAR) when LEVEL mentioned in
                   heading.

    056,057   ?   <u>Remark</u>
                   Two data sets with same isoquant and independent
                   variables. It would be adequate to differentiate
                   in comment sections (e.g. mention 'SET 1',
                   'SET2' in respective comments), if only to
                   underline the fact that the measurement has been
                   repeated, and that the repetition is not due
                   to a coding error.

    056-073   <u>DATA-ERR column</u>
    075-092   contains 0.0, which is meaningless, and
    094-096   also dangerous for user (e.g. when 1/D(SIGMA)
    104,112,117   used). Please delete ; centres are responsible
    119-124   for eliminating such 'noise' out of automatically
                   processed data.

<u>TRANS 1014</u>

    10104   ISO-QUANT
    10105   Same comment as for 10112,
    10106   TRANS 1013
    10107

<u>TRANS 1016</u>

10215.001   <u>REFERENCE</u> Volume n° missing in BAP.

10217.004   <u>DATA-MAX</u> and <u>DATA-ERR</u> Redundant.

<u>TRANS 1017</u>

10082.All   <u>COMMON DATA-ERR</u> Meaning not explained

TRANS 1018

10032.001 This is a superseded version which has been retransmitted . The new version has been previously retransmitted in TRANS 1015, with a new main reference .

10266.004 Alter flags missing .

TRANS 1019

10047.003 REFERENCE Keyword repeated

TRANS 1020

10015.001 REFERENCE Correct Paper n° to 'AH4'

10021.001 COMMON DATA-ERR Redundant with Subentry Information, or further specification not given .

10070.004 Remark Should now be flagged 'I'
.005 according to new convention

10111.146 COMMON E-LVL =0.0 Superfluous information for quantity (EL)

.157 ISO-QUANT. QUANT should be (INL,, FCT). Quantity to be entered is either (INL)x(1/4PI) or (INL, DA, RS) with other values. Cannot be (INL, DA) as no angular information is tabulated .

.All ISO-QUANT for (INL). Same remark as for entry 10112, TRANS 1013.

.152-157 COMMENT 'corresponding energy resolution given in discrete level data' does not exist for EN=6.37, 7.55 MEV Anyway, it would be better to include an EN-RSL column in the COMMON section, so as to produce self-contained subentries. Retrieval of subentries should give self-contained information .

10158.012 EN-ERR→EN-RSL.
Remark. Numbering of subentries not consecutive

TRANS 1021

10214.011   DATA, DATA-ERR Same values given,
      .012   check if coding error.

TRANS 1022

10012.005   A   E-LVL values carried over from 004.
                          Although 004 and 005 could otherwise
                          appear to be two data sets of the same
                          experiment, the values are not comparable.
                          NDCC has assumed same E-LVL values as in
                          005 before retransmission.

TRANS 3009

30041.001 — STANDARD Two standards given with no further specification.

30125.036 — ISO-QUANT should be (57-LA-139,...) (cf. 166 KeV level + organisation of tables)

30128.002-009 — ISO-QUANT Modifier RNV should be used.

30129.002-010 — ISO-QUANT Same as for 30128.

.011 — ISO-QUANT Same as for 30128. Moreover modifier FCT should be added.

30221.002 — ISO-QUANT. Add modifier GND.

30226.003,005,007 .009,011,013 .015,017 — ISO-QUANT Should be (1-H-1,BAS).

30227.001 — COMMENTS. Data units BARNS/(MOLECULE *STERADIAN *ANGSTROEM) must be wrong. Conversion to MEV of D(SIGMA)/(DE*D(THETA)) gives impossible values.

30229.004 — ISO-QUANT should be (1-H-1,BAS)

30230.AII — ISO-QUANT. Same as 30229.

TRANS 3010

30237.003,006,008 .011,014 — Remark : RESID-NUC Information should be given here too, although already given in other subentries referring to same target.

30241.003 — DATA Exponent E-4 omitted

TRANS 3011

30246.002-025 .022 — RESID-NUC Information missing (half-lives). ISO-QUANT should be ((63-EU-151,NG,,MS)/(63-EU-151,NG,,MS) (checked by calculating ratio).

TRANS 3011(ctd)

30248.003-005   RESID-NUC   Information missing
     .011-013   (half-lives)

TRANS 3012

30259   Should be retransmission of 30133
                  (TRANS 3005). Temporarily entered in N.D.D.
                  with differentiated Reference key.

30260.001   HL1   heading in common section only relevant
                  for .002.

TRANS 4006

40107.001   EN-ERR——→ EN-RSL.

40109.001   COMMENT :
Records 14 and 15 interchanged.

40110.001   COMMENT :
Erase record n° 22.
COMMON : Meaning of ANG-RSL not explicit.
Does it apply to neutron registration angle,
or to fragment angle ? In the latter case it
does not apply to subentry 002.

.003-005   COMMON : According to ISO-QUANT,
fragment angle should be tabulated. Common
section referred to in comment should be that
of subentry ; main common should be referred to
as 'MAIN COMMON' if this is the case. If
fragment angle is tabulated, then modifier RSD
should be used, unit heading should be NO-DIM.

40115.002   EN   column.   Meaning of 0.0 value ?
If spontaneous fission, separate subentry should
be made with quantity (SF/NU)

40119.003   COMMENT   Record 6 : MEV- MILLI-EV.
DATA   Record 13 : "   "
.007   Same as for .003.
FLAG   should be '1' to suit comment.

TRANS 4007

40012.002-010   EN-ERR→EN-RSL

40069.003-008   ISO-QUANT : Modifier RSD incompatible
with ARB-UNITS, and with value of
cross-section at 90 DEG ($\neq$ 1)

40093.004   EN-RES, EN-RES-ERR   Units must be EV.
.005   ISO-QUANT (EL)⟶ (EL, POT)

TRANS 4008

40121.001   STANDARD.   Please label standards
"STAND 1", 'STAND 2' as in Data Table.

COMMENT   Content should be under
⟶ERR-ANALYS. Also, error on U-235 (n, f)
mentioned, whereas only U-238 is mentioned
as standard.
.002   EN-ERR⟶EN-RSL.

40124.002   EN-ERR⟶EN-RSL.
40130.002   EN-ERR⟶EN-RSL.

TRANS 4009

40122.014		DATA, DATA-ERR Units wrong (EV)
40129.003, 004		DATA Units should read MILLI-EV
.008		DATA, DATA-ERR Units should read MILLI-EV
40132.002, 003		EN-ERR→EN-RSL

TRANS 4010

40036.002, 003 .005-013		EN-ERR→EN-RSL
40134.008	?	Missing

TRANS 4011

40131.004		No DATA for E = 1.45 MEV
40137.004		COMMON EN→0.0253 EV

TRANS 4012

40095.034	ISO-QUANT Drop modifier PAR

TRANS 4013

40142.002	STANDARD Missing. Information given instead under COMMENT
.003	DATA→DATA-ERR in col. 3.
40157.001	STATUS (DEP) code not to be used in this context (See Lexfor)
.004	FLAG Value '3'. not in table.
40158.005 (U233)	STAND-ERR = 0.0 Drop
.005 (U235)	STAND-ERR Same as above. (has been renumbered 006 for internal storage by NDCC)
.007	EN-ERR Record 22, value '.'.