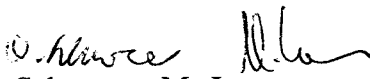## Memo 4C-3/369

11 June 1993

To: Distribution

From: O. Schwerer, M. Lammer

Subject: **Comments on TRANS 1251, 1252, 4089-4092**

       Please find enclosed our comments on the above mentioned TRANS tapes. We found no errors in TRANS 1253.

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TRANS 1251:

Subentry 13166.001, line 4: change IAEA-TECDOC-572 to IAEA-572

TRANS 1252:

Subentries 13561.002, 13562.002:

REACTION ,,POL/DA,,ASY/PP: Not yet in dictionary 36.

This is one of the quantities where a final wording for the expansion in dictionary 36 and a revised Lexfor entry is still pending (Action 17 of the 1992 NRDC meeting). Taking the wording of memo CP-C/200, this is a special quantity for photonuclear data.

TRANS 4089

Entry 41043.002,3,4:	add SPA to REACTION SF8 (SF8 = LEG/RS/SPA) because INC-SPECT says "fast neutron spectrum of reactor"
41091.003 } 41093.002 }	add MXW to SF8
41095.002	REACTION SF8: change SPA to AV
40551.001 line 9:	comma missing: ....,48,(1),....

TRANS 4091

Entry 41102: Subentries 11-16: This quantity is labelled SIG(N')(U<BN) in the 80KIEV article, but compiled as a sum of inelastic scattering plus several reactions without an outging neutron, which does not seem to be correct. Probably this quantity is of rather theoretical value and need not be compiled in EXFOR.

Subentries 17-21: This is the total inelastic cross section. Delete second part of the sum.

Entry 41103.001: line 4 (TITLE): BA-132-G should read BA-133-G
Subentry 3, line 3-5: delete -G in REACTION SF1

Entry 41105, subentries 2-7: add modifier SPA to SF8
" 41106, " 2: " " " "

Entry	Subent(s)	Line(s)	Comment
40329	4	7	Omit factor 1/2 in free text formula
40389			See comments on TRANS 4092
40420*)	1	8	issue number should be (1)
		12	delete INC-SOURCE (none)
	2	5-7	free text for REACTION 2 should be ..OF BOTH COMPLEMENTARY FISSION FRAGMENTS
	3 and others		all subentries where both MASS and secondary energy E are given: REACTION should probably be ...MASS,PR/PAR,DE,N or (subentry 4) ..MASS,PRE,FY/DE
	4 and others		all subentries with free text "number of events": add RAW or REL to REACTION SF 8 if not yet given
	8,9,47		all DATA values = 1 ?
40489*)	1		MONITOR is relevant only for subentries 2 and 4, not for 3
	3		Denominator of REACTION 1 is also monitor for REACTION 2
	4		add MONITOR in BIB and DATA section
		4	SF1 in denominator should be U-235
41026*)	2-6		ASSUMED value should be divided by 100, as was done with DATA
41047*)			1. EN-DUMMY in subentry 1: wrong exponent 2. Data measured are not included 3. Data compiled are derived using a semiempirical formula 4. REACTION coding incorrect. The data are the number of fission fragments of given mass and energy, giving the ratio: converted fragments/total fragments. (Part of the fission fragments undergo internal conversion, resulting in a shift of the ionic charge distribution.) Actually measured data should be requested from authors.
41081			Difference between subentries 2 and 3 should be explained (neutron flux, irradiation time) Error is obviously statistical only

41085*)	1	5	REF. should be SNP
	2		REL data inconsistent with units PC/FIS FY 13.5% for I-137 is impossible MONITOR included in DATA?
	3	3,4	free text explanation incompatible with values in DATA table (values add up to 1)
41087*)	1		add under REFERENCE English translation (J,SJA,42,379,7710)
	1-4		Coding with MONITOR not correct because relative Xe yields add up to 100%. Therefore remove MONITOR from all subentries (also 1) and add values for Xe-131 to data table.

Comments on TRANS 4092

Entry	Subent(s)	Line(s)	Comments
40199 *)	2		According to free text explanation, 'G' should be deleted from REACTION SF7 because it is not inelastic γ production data but partial cross sections exciting particular levels (like subentry 6). Level energies can be given in COMMON section under E-LVL-NM and E-LVL-DN, explanation may be given under EN-SEC (E-LVL-NM, 28-NI-58) (E-LVL-DN, 28-NI-60)
	5		Delete 'G' from SF7. Or, if it is total γ-production cross section, it must be coded (N,X)-0-G-0,,SIG.

40389 *)	3, (9)		Coding not correct because
			a) R-value has 2 types of monitors:
			  - set of ref.yields Pu-239 thermal
			  - AM-241 ref.yield (here: Ba-140 from subentry 2)
			b) R-value should be coded differently (see memo CP-D/185)
			After checking the main ref., we believe that the case is like in CP-D/185, Appendix, example 1, bottom of page.
			Subentry 9 is a similar case, also not quite correct.

	4		Values for Mo-99, Ba-140, Ce-141 not from this publication: delete.
	7		Wrong data taken from publication, see reference
	9		See comment on subentry 3
	10		Data transferred to subentry 19 (not 17)
	13		Add STATUS dependent of subentry 11,12
	16		Add STATUS dependent of subentry 14,15

Comments on TRANS 4092 (cont.)

Entry	Subent(s)	Line(s)	Comments
40389 *)	17		Values missing for Pd-112, Cd-155g, I-133 Value for Cs-136 is independent yield, move to separate subentry
	18		MONITOR missing (see subentry 3)
	19		From separate publication: delete
40420 *)	1	8	Issue number should be (1)
40972	2	3	Remove 'N' from SF7
41042 *)	2,4,6-8		REACTION SF6=FY without specifying a fission product (ELEM and/or MASS) has no meaning. Since it is a ratio of fission probabilities, this can probably be coded as cross section ratio using SF6=SIG. Also, numerator and denominator to be exchanged.
41109 *)	4,5,6,8,9		Since secondary energy E is given, DE is needed in REACTION SF6. PRE,FY/DE will be added to dictionary 36.

*) retransmission requested