

Memo 4C-3/125

To: Distribution

From: F. Hirschbichler + H.D. Lemmel *Lemmel fhd*

Subject: US Cinda entries checked by NDS check program

A sample of more than 1000 US Cinda entries was checked with the NDS Cinda card check program. Our program contains a large number of NDS-specific checks which could not easily be switched off when checking the US entries. Therefore almost every entry got one or more error messages most of which could be ignored. It is therefore useless to send the check output listing. Instead, we have prepared manually a list of errors and items worthwhile mentioning together with a computer listing of the cards concerned.

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A. List of errors found

1. Ref-date missing for Exfor index line. See cards no. 3, 35.
2. A totally blank comment field is forbidden at NDS, although it is probably accepted at NDCC. See card 35.
3. Blank within author's name should be replaced by an underscore. See cards 28 and 258.
4. Note that the energy entry THR 15+7 means: incident neutrons = thermal Maxwellian and 15 MeV. What is really meant should probably be coded as -2 15+7. See cards 817, 866, 874, 964, 967 and a few others.
5. Zero energy should be coded 00+0. However, we are not sure whether the NDCC programs accept also other forms. See card no. 172.
6. For conference references conf-date and ref-date must be identical. See entry no. 466.

B. List of items worth while mentioning

1. Warning messages for rare isotopes were given in a number of cases. (If these cases would occur more frequently in the NDS area, we would probably include many of them in the list of acceptable isotopes.) When the quantity is RES, STF, NG, RIG, etc., it always pays to check whether the nucleus entered is the compound nucleus instead of the target nucleus, whenever the rare isotope warning message shows up. See cards 1, 81, 247, 731, 939 and various nuclides in the papers 75WASH 224 and 320. Probably all are correct.
2. We do not use TR any more, although it is acceptable. A warning message is printed saying: Approximate energy preferable. See card no. 408 and many others.
3. We use MAXW instead of THR, although both are acceptable. Experience has shown that THR was often abused for monoenergetic neutrons "in the thermal energy range", and we believe that this mistake will occur less often when MAXW instead of THR is used for incident neutrons with a thermal Maxwellian spectrum. Compare error no. 4.
4. A blank block-number means at NDS that the Cinda indexer has not looked into the Cinda master file to see whether there exists already an entry of the same experiment to which the new entry must be blocked. Therefore, a blank block number is not allowed at NDS. If the entry is positively to remain unblocked, a new block-number is invented, or 'B01' is entered.- Otherwise the block-number check and its cross-check with the operation-code did not apply for the US entries since we use a different range of block-numbers.
5. We did not check the ref-codes, because the pertinent list in our check program still includes only those ref-codes which have until now occurred in our entries. For report-codes we check a variable-length field up to the first hyphen.
6. The checking of EXFOR references did not apply since we have a different range of accession-numbers.

NNCSC GINDA CARDS

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CARD NO.

PA232NF ANL	+A	EPILE	L	TRANSU	EL		49GHIORSO			1
U 235TO	THAN	15I+8DE	25+615+74EXFOR	10047			486 PTS			3
U 235NU	ANL	011CB	EMAXW	*DA/B	27	4510667DE	VOLPI			28
U 235NF	ORL	703CBDE	80+010+44EXFOR	10249						35
PA230NF	LRL	750+B	ETHR	LACT	EL	54GHIORSO+	SIG=1500+-250B			81
H 001NG	AML	+A	T0 +0	JFR/C	11	349275LASSEY+	REID SOFT CORE POT	CIR	POL	172
N 013SE	LF	FSU	+A	TNDG	*BAP	20	667475CHWIEROTH+	COUPLED CHAN	CALC	247
L I007S	INR	IC	+A	ENDG	*BAP	20	560475VON	BEHREN+	VDG	258
SI	DNG	IRTB01	+A	ETR	20+7C75	WASH	765375ROGERS+	GRPH		408
FE056T	TAL	B150+B	E12-45C+5C75	WASH			748365PANDEY+	R	MATRIX	466
YB175R	ESCOL	+A	RNDG	C75	WASH		779375SHACKEN+	TBL	AVG	731
U 233NU	TOH	150+B	TTHR	15+7C75	WASH		342375YAMAMOTO+	STAT	MODEL	817
U 235NU	TOH	150+B	TTHR	15+7C75	WASH		342375YAMAMOTO+	STAT	MODEL	866
U 235NF	YTOH	150+B	TTHR	15+7C75	WASH		342375YAMAMOTO+	STAT	MODEL	874
PU239NU	TOH	150+B	TTHR	15+7C75	WASH		342375YAMAMOTO+	STAT	MODEL	964
PU239NF	YTOH	150+B	TTHR	15+7C75	WASH		342375YAMAMOTO+	STAT	MODEL	967
NP238NF	LAS	+A	T	+552+6C75	WASH		218375WILHELMY+	CALC	USING	939
							U238(HE3,DF)			