05.05.89 AM IAEA

BROOKHAVEN NATIONAL LABORATORY
ASSOCIATED UNIVERSITIES, INC.
Upton, Long Island, New York 11973

National Nuclear Data Center
Bldg. 197D

(516) 282-
FTS 666 2901, 2902

CP-C/185

DATE: April 10, 1989

TO: Distribution

FROM: V. McLane

SUBJECT: Independent variable fields in EXFOR

We are receiving many examples of redundant independent variable fields on transmitted EXFOR entries. These cause us problems in our computation format codes if we do not revise the data sets before entering them into our data library.

It has been agreed in the past that only one representation for each parameter should be coded in the data table. The only explicit reference to this that I can find in the EXFOR Manual is on page LEXFOR C.2, although it is implied elsewhere (e.g., page 1.4, item 2) page 5.9, item 2.

I propose the attached EXFOR Manual update to chapter 5.

If other centers need this information specified for their codes, we should propose alternate ways to enter it.

The most frequently occuring cases found on transmission are:

1. An energy range given in COMMON for resonance parameters when the resonance energy is given in the data tables.

2. The initial and final levels given when the secondary gamma-ray energy is given.

For the NNDC library files we have deleted the energy ranges for the first case, and have changed the data headings E-LVL-INI and E-LVL-FIN to MISC for the second case.

Charles L. Dunford

Distribution:

F. E. Chukreev	**J. J. Schmidt**
V. Vlarmov	A. Hashizume
V. Manokhin	N. Tubbs
S. Pearlstein	NNDC (5)

cc. Gould
Lammer
Lemmel
de Moraes Cuha
Okamoto
Osorio
Schweer
Schmidt
Seitz, Wang Dahai

The following two restrictions apply within the three sections:

COMMON section of subentry nnn ≠ 001,
DATA section of subentry nnn ≠ 001,
COMMON section of subentry 001 of same entry.

Multiple representations of independent variables

Only one representation of an independent variable may be given for each data line (*e.g.*, either angle or cosine may be given, not both).

Repetition of data headings

No data heading (data-heading keyword plus perhaps a pointer) will be repeated except for the following cases. (Any additional case of repeated data headings which the centers may agree to accept, must be described here).

Fields with identical data headings will be adjacent and will appear within only one of the three sections mentioned above.

1. **Two or or more unresolved secondary energies** are entered as follows:

E-LVL	E-LVL	E-LVL
MEV	MEV	MEV
0.077	0.107	0.177

Similarly, the data heading EN-RES may be repeated in the case of unresolved resonance energies.

2. **An angle given in degrees and minutes** is entered in two separate fields with the data heading ANG repeated, as follows:

ANG	ANG
ADEG	AMIN
90.	47.

Other keywords beginning with ANG-.... may be repeated in the same way.