Memo 4C-3/97

To: Distribution   8 April 1974

From: J.R. Lemley

Subject: LEXFOR revision of January 1974

        We have examined the LEXFOR revision marked January 1974, which
seems to be very thorough especially considering the large backlog of
changes, and have noted several important errors as well as some trivial
ones. We have also scanned the Minutes of the 7th, 8th and 9th 4C-Meetings
and Memos

                4C-1/20   (Jan 72)   - 1/43 (Present)
                4C-2/29   (May 72)   - 2/50   "
                4C-3/52   (May 72)   - 3/96   "
                4C-4/17   (Jan 72)   - 4/24   "

for omitted LEXFOR items which we believe the Centers did not intend to
cancel. We have not recorded omissions or suggested changes which are likely
to be superseded by continuing discussion, especially the definitive formulation
being prepared by CCDN for the 10th 4C-Meeting, on multidimensional tables,
multiple isoquants, pointers, etc.

        On the following pages the items were grouped in three sections:

A.   Important corrections
B.   Trivial corrections
C.   Omissions

                                              Clearance: J.J. Schmidt

A. Important Corrections

1. MONOISOTOPIC ELEMENTS

The list contains several errors:

> 39-Y-89   **not**   39-Y-93
> 69-TM-169   **not**   69-PM-169
> 41-NB-93   has been omitted.

Item 21 in 4CM/VIII/X4 also recommended preparation of a list of nearly monoisotopic elements for which assignment of A = O is left to the discretion of the compiler. The list of elements for which A = O is forbidden in CINDA might be a useful guide.

2. NUC-QUANT

In Point 3 the quantity code for the nuclear temperature in the Fermi gas model should read "TEM" not "TMP". Dictionary 10 has the correct code "TEM".

3. WAVE-LENGTH

INDC(NDS)-54: p. 11, Point 50; p. 83; p. 99, Action 29 (NNCSC).

The entry on Wave-length in the January 1974 revision of LEXFOR does not correctly reflect the adopted proposal on p. 83 of INDC(NDS)-54 according to which the data-heading keyword WVE-LN should be deleted. What is correct?

B. Trivial Corrections
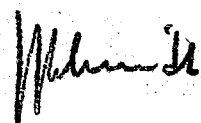
1. METASTABLE STATES

Under Point 2, isomer code "g" should read "G".
Add example (95-AM-242-G).

2. ERRORS

Cf. Manual VIII.3

In the Lexfor entry "Errors", in the middle of the page the description of the keyword ERR-ANALYS should be changed to read,
"The keyword ERR-ANALYS must be present except when it is not relevant."

3. **STATUS**

a. In the note on origin of numerical data, the reference to the <u>last</u> example is incorrect and should probably read, "(cf. use of code "R" in the above examples)".

b. Since "not relevant" is supposed to be defined in LEXFOR (see Manual VIII.3, definition of "O"), it would be useful to add to the first paragraph, "The keyword "STATUS" must be present except when it is not relevant. It is not relevant only when the source of the data is given under REFERENCE and no other STATUS information applies." (cf. Manual, p. VIII.4)

4. **INDEX ENTRIES**

   a. Standard: Delete   "and Dictionary 15"
   b. Sample: Delete   "and Dictionary 20"
   c. "Dirty" modifier: Delete the entire index entry.

5. **NONELASTIC**

The revision is identical with the previous version including the misspelling of "disagrees" in the last line.

Apparently the disagreements expressed in the Note; INDC(NDS)-51 p. 29 item 25; 4C-1/32; and 4C-3/78 p. 2 III.B have not been resolved. Should discussion be dropped or renewed?

6. **NODATA**

Following the change recommended in INDC(NDS)-51 p. 30, item 35 the syntax and punctuation of the last sentence of the first paragraph are extremely awkward.

7. **STANDARD**

The quantity modifier RST does not exist and should probably read RS<u>D</u> or RB<u>T</u> ; preferably both the latter should be mentioned.

8. **MANUAL p. VIII.3**

The information in parentheses following the keyword ISO-QUANT should read ((Z-S-A, <u>14</u>)) not k4. Compare also 4C-3/95 item 1.

C.   Omissions

1.   *Percent*

   INDC(NDS)-54: p. 11 Para. 50; p. 83; p. 99 Action 29 (NNCSC)

   The agreement concerning data given in percent apparently has not been entered in LEXFOR. It could be entered under Units with an index entry and cross reference under Percent.

2.   *Fission fragment energy spectra*

   INDC(NDS)-54 p. 99 Action 29 (NNCSC)

   NNCSC apparently has not prepared an entry on this subject. There is a relevant note at the end of the entry on Fission Yields. Is this sufficient? An index entry with cross reference under Fission Fragment Energy Spectra would be useful.

3.   HALF-LIFE

   INDC(NDS)-54 p. 11 Para. 50, p. 99 Action 29 (NNCSC);

   INDC(NDS)-51 pp. 38-39

   a.   The information identifier keyword HALF-LIFE should be added to the list on Manual p. VIII.3 and perhaps defined in Chapter VIII.

   b.   The only detailed coding information is in LEXFOR Example 17, which might be insufficient without reference to INDC(NDS)-51 pp. 38-39.

   [It is our belief that the following items have been overlooked rather than intentionally cancelled by INDC(NDS)-54 p. 10 Para. 46. We therefore reintroduce them].

4.   Several additions or modifications to LEXFOR were proposed in 4C-2/36 and have apparently not been considered in the January revision. At this time it would seem appropriate for the originating Center (CCDN) to check the current formulations of relevant entries, to collect comment which may have arisen in Memos subsequent to 4C-2/36 and to submit final formulations which should be entered immediately by NNCSC. The entries which should be finalized are listed below:

a.   STANDARD or ABSOLUTE MEASUREMENTS

A reference or cross references under "Absolute" should be added to the index. See also Relative

b.   ERROR and RESOLUTION

c.   RAW.

There is no LEXFOR entry on this modifier.
Discussion in Memo 4C-2/40 should be included in any revision, and cross references for other modifiers mentioned in 4C-2/40 should be added to the index. See also 4C-3/85.

5.   POLARIZATION

4C-3/60 p. 3 Para. D.1; INDC(NDS)-51 p. 28 Para. 19

NNCSC has not revised this entry.

6.   Experimental Determination of Fission-Product Yields

INDC(NDS)-51 p. 28 Para. 18

NDS has not prepared an entry on experimental methods of determination.

7.   Multi-level Resonance Parameters

INDC(NDS)-51 p. 28 Para. 20

NNCSC has not submitted an entry.

8.   PARTICLES

INDC(NDS)-51 p. 29 Para. 24; 4C-3/57 p. 9 Para. 7.c.

The distinction between decay gammas (DG) and gammas (G) has not been clarified in LEXFOR (entry to be prepared by NNCSC) nor has the code B for decay betas been defined in LEXFOR. Brief definitions have been entered in Dictionary 13, but precise definitions in LEXFOR are still needed.

9. <u>Independent Variables</u>

INDC(NDS)-51 p. 28 Para. 22

NNCSC has not submitted an entry, but this action has probably become obsolete because of the continuing discussions on multidimensional tables, pointers and multiple isoquants.

10. <u>Quantity modifiers 2L2 and PAD</u>

INDC(NDS)-41 Para. 37

NNCSC did not submit detailed definitions of these codes. Apparently they have never been used and we suggest to regard them as cancelled.