

Memo 4C-3/77

To: Distribution

26 March 1973

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Subject: WRENDA

As a result of discussions held at the EANDC meeting in Paris in December 1972 and the conversion of the current RENDA file to the new system, it has been found necessary to make some minor adjustments to the input and internal formats.

For your convenience we are sending the complete document, which appeared as 4 CM/VIII/16 in the minutes of the eighth 4-Centre Meeting. Changes are marked by a solid line in the left-hand margin.

The changes concern the following points:

1. In some cases the name of an organisational body is given as the "Requester's Name" and therefore the length of this field has been increased.
2. Discussions at the EANDC meeting led to the decision that there would be no specialist subject review. Therefore "Energy-type" in the Status File is no longer needed, and is removed. Delete also, page 131 (Energy-type codes).
3. It was considered desirable to retain the 3-character institute code associated with status comments. Therefore the format of the comments' cards to the status file has been revised.
4. We include internal numerical codes for projectile and reaction-modifier, for your information.
5. The internal record formats have been adjusted to take account of points 1, 2 and 3 above.

Finally we attach a proposed annual publication schedule. It became apparent at the EANDC meeting that this is what people really want, and if there is no specialist review it becomes possible.

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WRENDA: World Request List for Nuclear Data

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General comments

1. The system has been split into two separate files; viz - the Request File and the Status File. The two files are linked by the Z,A,Q key.
2. By an agreed date within each cycle, each center should transmit to NDS two files: -
  - 1: Input to the Request File
  - 2: Input to the Status File.
3. With only very minor changes, the formats of these two files are those agreed at the 4 Centre Meeting.
4. Each request has a 4-digit number assigned by the centre, of which the first digit is the centre-number. This number will never change, and must be unique for new requests submitted within any one year. This number, preceded by the year-of-request will be considered as the unique request-identification (REQU-ID). (Note that year-of-request is the year when the request was initiated, and will never change). When converting the master file to the new system NDS will reassign request-numbers to all the present requests, based on these rules.
5. If anything within a request has been altered between transmissions, then the complete request should be transmitted, with its original REQU-ID and the appropriate status code.
6. Requests may be transmitted in any order, although we would prefer to have them sequenced by REQU-ID (col. 71-76).
7. Within a request, records should be ordered by card-type (col. 77). When merging requests at publication time, care will be taken not to interfere with this sequence within any one request, i.e. the requester's comments will not be separated from his request.

8. Requests which are "satisfied" or "withdrawn" should not be sent in the transmission for the Request File, but should be sent as two separate lists, by REQU-ID only.

A satisfied request is a request which the original requester or relevant local committee considers to be satisfied, (i.e. the measurement has been made to the required accuracy). It will not appear in the main listing at publication time, but in a separate list following the main one and will thereafter be dropped from the publication.

A withdrawn request is a request which the original requester or relevant local data committee considers is no longer needed. (Usually because the measurement is no longer relevant to existing programs, or existing data is now considered to be sufficient). It will be referenced at the end of the publication following its withdrawal and then dropped completely.

9. A block of entries to the status file is defined by the same Z,A,Q.

In the published WRENDA, all the requests for a given Z,A,Q will be printed, followed by the status comments.

10. We hope that countries will supply their own status comments through the centres. However, some requests have "STATUS-NONE", in which case nothing would be sent for these requests.

11. NDS could send a copy of both master files to the other centres immediately after the files are obsed for publication.

12. NDS could send to the other centers, listings (or tapes) of the requests originating from their area, sorted by country, together with relevant status comments, for use in updating requests.

13. NDS is willing to supply all the WRENDA programs, as they become operational, to any centre who is interested. The programs will be written in PL/I for running under O.S.

14. The character set to be used is the same as for EXFOR.

Input to Request FileRequest Card

- (Card-type A.) First card of each request. One and only one per year/  
request number.
- col. 1 - 2 S. 2 character element symbol. Left adjusted.  
FP  $\equiv$  FPROD in the CINDA and present RENDA sense.
- 3 - 5 A. 3 digits with leading zeroes. (000 for natural elements).  
OR, 3 characters for compounds as used in EXFOR and CINDA.
- 6 Blank.
- 7 - 26 Projectile, Reaction-modifier. Up to 20 character string  
left adjusted in field with a comma separating the two  
codes.  
See Page 10 for projectile codes.  
See Page 11 for reaction-modifier codes.
- 27 - 30 Blank.
- 31 - 36 E-min. (ev). n.nn+m or blank.
- 37 Blank.
- 38 - 43 E-max. (ev). n.nn+m or blank.
- 44 Blank.
- 45 - 46 Application code. Up to 2 characters, left adjusted in field.  
See Page 13.
- 47 Blank.
- 48 Priority code. 1 character. See Page 14.
- 49 Blank.
- 50 - 53 Accuracy (in %) nn.n or blank.
- 54 - 69 Presently unused.
- 70 Status code. 1 character. See Page 14.
- 71 - 72 Year of request. 2 digits.
- 73 - 76 Request number. 4 digits, of which the first is the area-  
code (as for EXFOR).
- 77 Card-type 'A'
- 78 - 80 Blank.

Name card(Card-type B)

Second card of each request. There may be more than one B-card, but all institutes must be from the same country in one request. Multiple countries necessitates multiple requests.

col. 1 - 15 Blank.

16 - 18 Institute. 3 character code, left adjusted. The last 3 characters of the EXFOR codes, which should be the same as the CINDA codes.

19 Blank.

20 - ~~65~~ Requester's name. Up to 46 characters, left adjusted in field.  
Same coding procedure as EXFOR.

66 - 70 Presently unused.

71 - 72 Year of request. As on card-type A.

73 - 76 Request number. As on card-type A.

77 Card-type. 'B'

78 - 80 Blank.

Comments Card These cards give further free text comments on the reaction  
(Card-type C,D,E) and accuracy, if needed, and the reason for the request.

col. 1 - 19	Blank.
20 - 69	Free text comments.
70	Blank.
71 - 72	<u>Year of request.</u> As on card-type A.
73 - 76	<u>Request number.</u> As on card-type A.
77	<u>Card-type:</u> 'C' for comments which further specify the reaction. 'D' for comments which further specify the required accuracy and resolution. 'E' for comments concerning the reason for the request and any further information the requester may care to include.
78 - 80	Blank.

Note: The comments cards must be in C,D,E order.



# WRENDA REQUEST FOR IAEA NUCLEAR DATA SECTION

Numbers  
0, 0' zero  
1 one  
2, 2' two  
5 five  
7 seven

Letters  
I I  
J J  
S S

Coded ..... Checked .....

Punched ..... Verified .....

Request Number  
Year

Repeat on each card. →

71	73	76
----	----	----

Energy (ev)

Min ±	Max ±
31	43

Appl. Code

45	46	48	50	53
----	----	----	----	----

Prior Accuracy %

77	A
----	---

Status Flag

70
----

S A Projectile, Reaction-modifier

3	5	7	26
---	---	---	----

Institute Requester's Name

16	19
----	----

66
B
B
B
B
B

Requesters' Comments on reaction (C), accuracy (D) and reason etc. (E).

69
20

Card-type  
(C, D or E)

77				
----	--	--	--	--

\* In sequence C, D, E.



Input to Status File

First card of each comments-block. One and only one per block.

- col. 1 - 2    S. 2 character element symbol. Left adjusted.  
                    FP  $\equiv$  FPROD in the CINDA and present RENDA sense.
- 3 - 5    A. 3 digits with leading zeroes. (000 for natural elements)  
                    OR, 3 characters for compounds as used in EXFOR and CINDA.
- 6    Blank.
- 7 - 26    Projectile, Reaction-Modifier. Up to 20 character string,  
                    left adjusted in field with a comma separating the two codes.  
                    See Page 10 for projectile codes.  
                    See Page 11 for reaction-modifier codes.
- 27 - 77    Presently unused
- 78 - 79    Card sequence. '01'
- 80    Blank.

Second and following cards of each comments-block

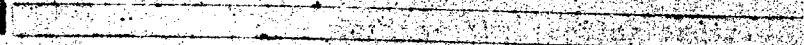
- col. 1 - 3    Institute
- 4    Blank
- 5 - 54    Status comments
- 55 - 77    Presently unused
- 78 - 79    Card sequence '02', '03' etc.



Incident particle (projectile) codes

Code	Internal numerical value
0 - No incident particle	0
G - Photon	1
N - Neutron	2
P - Proton	3
D - Deuteron	4
T - Triton	5
3 - Helium-3	6
A - Alpha	7
LI6 - Lithium-6	

More to be added, as required.



The following table gives a list of the quantities recognized by WRENDA and their sorting order.

Internal numerical value	Code	Quantity (Reaction-modifier) Codes
10	LDP	Level density parameters
20	LQN	Discrete level structure (Energy and spin and parity)
100	TOT	Total cross section
200	EL	Elastic cross section
220	EL,DA	Differential elastic cross section
300	INL	Inelastic cross section
320	INL,DA	Differential inelastic cross section
340	INL,DE	Energy distribution of inelastic neutrons
360	INL,DA/DE	Double differential (energy, angle) inelastic cross section
400	THS	Thermal scattering law
500	SCT	Total scattering cross section (elastic + inelastic)
520	SCT,DA	Differential total scattering cross section
600	NON	Non-elastic cross section
650	ABS	Absorption cross section
1000	G	Capture cross section
11100	G,DE	Energy distribution of capture gamma rays
1200	ING	Photonproduction cross section in inelastic scattering
1900	GEM	Total photon production cross section
2000	N	Neutron production cross section e.g. (p,n)
2100	2N	Two neutron production cross section e.g. (n,2n)
2200	3N	Three neutron production cross section e.g. (n,3n)
2900	NEM	Neutron emission cross section
3000	P	Proton emission cross section e.g. (n,p)
3100	NP	Neutron and proton emission cross section e.g. (n,np)
4000	D	Deuteron emission cross section
4100	ND	Neutron and deuteron emission cross section e.g. (n,nd)
5000	T	Triton emission cross section
5100	NT	Neutron and triton emission cross section
6000	3	Helium-3 emission cross section
7000	A	Alpha emission cross section
9000	F	Fission cross section

Internal numeric Code  
value

9010	NF	Second chance fission cross section
9100	ALF	Capture to fission ratio e.g. (N,G/H,F)
9150	ETA	Number of neutrons emitted per neutron absorption
9160	NON/ETA	Number of neutrons emitted per non-elastic process
9200	NU	Number of neutrons emitted per fission
9220	NU,,DL	Information on delayed fission neutrons
9240	NU,,FF	Information on neutrons emitted by a given fragment
9260	NU,DE	Energy spectrum of fission neutrons
9300	F,DE,,G	Spectrum of prompt gamma rays emitted in fission
9400	F,,TER	Fission product mass yield spectrum
9450	F,,,FF	Information on energy, angle or velocity distribution of fission fragments
9900	RES	Resonance parameters
9920	ABS,RI	Absorption resonance integral
9940	G,RI	Capture resonance integral
9960	F,RI	Fission resonance integral

The following changes from the current WRENDA are recommended.

1) The "quantity modifiers will no longer exist. They will be relegated in most cases to the comments to a request. In some cases where important they have been made a part of the WRENDA quantity definition. In particular this applies to resonance parameters (RP), inelastic gamma rays (DNG), non-elastic gammas (NEG), neutron emission (NEM), n,2n, n,3n, etc.

2) Deleted were

CHG	Fragment Charge
REM	Disappearance
ACT	Activation
FPG	Fission Product Gammas

NPR	Neutron Production
RIR	Activation Resonance Integral

Application Codes.

Rb	Fission Reactors.
RA	" " , Core Physics.
RB	" " , Shielding.
RC	" " , Dosimetry.
RD	" " , Radiation Damage.
Fb	Fusion.
Nb	Safeguards.
Sb	Space

Priority Codes.

1 digit codes.

For fission reactors, as used in current WRENDA,  
see WRENDA 72, pages vi and vii.

For fusion a different criteria has been approved by the International  
Fusion Council, see INDC(NDS)-45/L, page 46.

Status codes.

- + New request.
- A Modified due to partial satisfaction.
- B Modified due to partial withdrawal.
- C Altered - minor changes which do not affect the meaning of  
the request.

Energy-Type Codes

DELETED	
---------	--

\_\_\_\_\_



# WRENDA REQUEST FORM

## IAEA NUCLEAR DATA SECTION

Numbers  
 0, 1 zero  
 2, 3 one  
 4, 5 two  
 6, 7 five  
 8 seven

Letters  
 I J S T

Coded ..... Checked .....

Punched..... Verified.....

Request Number

Repeat on each card. → 71 73 70  
 69 1001

Energy (ev)  
 Min ± Max ±  
 31 36 38 43  
 1.00+2 5.00+3

App. Prior Accuracy Code %  
 45 46 48 50 53  
 RA 3 10.

Status Flag 70  
 +

77 A

S A Projectile, Reaction-modifier  
 PU240 N, RES

Institute Requester's Name

16 18 20 65  
 AML REAVERY  
 LMB P.B. HEMMING

77 B B B B B

Requesters' Comments on reaction (c), accuracy (d) and reason etc. (e).

30 69  
 NEEDED FOR FAST REACTOR CALCULATIONS. CHECK U.D. I.M.G.  
 DOPPLER EFFECT.

Card-type \*  
 (C, D, or E)

77 E E



# WRENDA REQUEST FORM IAEA NUCLEAR DATA SECTION

Numbers  
0, 0' zero  
1 one  
2, 2' two  
3 three  
4 four  
5 five  
6 six  
7 seven

Letters  
D  
L  
I  
Z  
S  
J

Coded ..... Checked .....

Punched ..... Verified .....

Request Year 71 Request Number 692001

Repeat on each card. →

Energy (ev)  
Min ± 36 Max ± 43  
1.20+5

Appl. Code RA Code 3 Prior Accuracy % 20

Status Flag +

S A Projectile Reaction-modifier 26  
PU 240 N<sub>2</sub>GEM

72 A

Institute Requester's Name

16 18  
WLM

20  
COSY-SAMPSEL

72 B B B B B

Requesters' Comments on reaction (c), accuracy (d) and reason etc. (e).

69  
GAMMA SPECTRUM MEASURED  
LOW RESOLUTION FOR NEUTRON ENERGY  
FOR STUDY OF ACTIVATION AND HEAT RELEASE IN CORES

Card-type \*  
(C, D, E)

72 C A E

\* In sequence C, D, E.



# WRENDA REQUEST FORM

## IAEA NUCLEAR DATA SECTION

Numbers  
 0, 1 zero  
 2, 5 two  
 3, 7 five  
 4, 6 seven

Letters  
 L I  
 M S

Coded ..... Checked .....

Punched..... Verified.....

Request Number

Year     
 → 66 1002

Repeat on each card.

Energy (ev)

Min ±    Max ±    
 4.50+4 1.00+7

Appl. Code       
 RA 2 20.

Status Flag

+ A

S A Projectile, Reaction-modifier

N<sub>2</sub> INL

Institute Requester's Name

GE T. S. NYDER  
 ANL P. B. HEMMING (1969)

Requesters' Comments on reaction (c), accuracy (d) and reason etc. (e).

EMISSION CROSS SECTION MIGHT BE EQUALLY USEFUL  
 THE HIGHER ENERGIES

Card-type\*  
 (C, D, E)

\* In sequence C, D, E.





Internal record format of Status File.

col. 1- 3            Z  
      4 - 6            A (internal numerical equivalent for compounds)  
      7 - 9            Projectile (internal numerical equivalent)  
     10 - 13          Reaction-modifer (internal numerical equivalent)

14 - 15            Card sequence within type

16 - 69            Columns 1 - 26 of first card

                      Columns 1 - 54 of second and following cards.

70 - 72            Presently unused.

Col.1 - 13 define a "block" at book-printing, and are constant  
                  for all records within a "block".

Master file:            sorted by: Z; A; Projectile; Reaction-modifier;

                   card-type; card-sequence.

Book sort:            same as master file.

WRENDA

EXFOR

RENDA

CINDA

<u>WRENDA</u>	<u>EXFOR</u>	<u>RENDA</u>	<u>CINDA</u>
		NPR	NPR
		NPRA	NPR
		NPRE	NPR
		NPRT	NPR
		ACT	ACT
	ACT		POL
	EL,POL		POT
	FL,POT		STF
	STF		CHG
		CHG	FPG
		FPG	REM
		REM	RIR
		RIR	
	SF	LDL	LDL
0,F	LDP	LVL	
0,LDP			
0,LQN			
0,NU	SF/NU		
A,N		AN	
G,F		GF	GF
G,N		GN	GN
N,2N	N2N	N2N	N2N
N,2N		N2NE	N2N
N,2N	N2N,DA	N2NA	N2N
N,2N	N2N,DA/DE	N2NT	N2N
N,3	N3	NH	NHE
N,3	N3,DA	NH A	NHE
N,3N	N3N	N3N	N3N
N,A	NA	NA	NA
N,A	NA,DA	NA A	NA
N,ABS	ABS	ABS	ABS
N,ABS,RI	ABS,RI	RIA	RIA
N,ALF	ALF	ALF	ALF
N,D	ND	ND	ND
N,D	ND,DA	ND A	ND
N,EL	EL	SEL	SEL
N,EL,DA	EL,DA	DEL	DEL
N,ETA	ETA	ETA	ETA
N,F	NF	NF	NF
N,F,DE,,G	NF,DE,,G	SFG	SFG
N,F,RI	NF,RI	RIF	RIF
N,F,,TER	NF,,TER	NFY	NFY
N,F,,,FF	NF,,,FF	FRS	FRS
N,G	NG	NG	NG
N,G,DE	NG,DE	SNG	SNG
N,G,RI	NG,RI	RIG	RIG
N,GEM	GEM	NEG	NEG
N,GEM	GEM,DE	NEGE	NEG
N,GEM	GEM,DA/DE	NEGT	NEG
N,ING	ING	DNG	DNG
N,ING	ING,DA	DNGA	DNG
N,ING	ING,DE	DNGE	DNG
N,ING		DNGT	DNG
N,INL	INL	SIN	SIN
N,INL,DA	INL,DA	DINA	DIN
N,INL,DA/DE	INL,DA/DE	DINT	DIN
N,INL,DE	INL,DE	DINE	DIN
N,NA	NNA	NNA	NNA
N,ND	NND	NND	NND
N,NEM	NEM	NEM	NEM
N,NEM		NE MA	NEM
N,NEM		NEME	NEM

N,NEM  
N,NON  
N,NON  
N,NON  
N,NON  
N,NON/ETA  
N,NP  
N,NT  
N,NU  
N,NU,DE  
N,NU,,DL  
N,NU,,FF  
N,P  
N,P  
N,RES  
N,RES  
N,SCT  
N,SCT,DA  
N,T  
N,T  
N,THS  
N,TOT  
P,N

NON  
NON,DA  
NON,DE  
NON/ETA  
NNP  
NNT  
NU  
NU,DE  
NU,,DL  
NP  
NP,DA  
-/WID  
-/PCS  
SCT  
SCT,DA  
NT  
NT,DA  
THS  
TOT

NEMT  
SNE  
SNEA  
SNEE  
SNET  
ETA  
NNP  
NNT  
NU  
SFN  
NUD  
NUF  
NP  
NP A  
RP  
RP  
SCT  
SCTA  
NT  
NT A  
TSL  
TOT  
PN

NEM  
SNE  
SNE  
SNE  
SNE  
ETA  
NNP  
NNT  
NU  
SFN  
NUD  
NUF  
NP  
NP  
RES  
RES  
SCT  
SCT  
NT  
NT  
TSL  
TOT



EXFOR SORT

WRENDA

EXFOR

RENDA

CINDA

O,LQN  
A,N  
G,F  
G,N  
N,2N  
N,ING  
N,NEM  
N,NEM  
N,NEM  
N,NON  
N,NU,,FF  
P,N  
N,RES  
N,RES  
N,ABS  
N,ABS,RI

N,ALF  
N,EL  
N,EL,DA

N,ETA  
N,GEM  
N,GEM  
N,GEM  
N,ING  
N,ING  
N,ING  
N,ING  
N,INL  
N,INL,DA  
N,INL,DA/DE  
N,INL,DE

O,LDP  
N,2N  
N,2N  
N,2N  
N,3  
N,3  
N,3N  
N,A  
N,A  
N,D  
N,D  
N,NEM  
N,F  
N,F,DE,,G  
N,F,RI  
N,F,,TER  
N,F,,,FF  
N,G  
N,G,DE

-/WID  
-/PCS  
ABS  
ABS,RI  
ACT  
ALF  
EL  
EL,DA  
EL,POL  
EL,POT  
ETA  
GEM  
GEM,DA/DE  
GEM,DE  
ING  
ING,DA  
ING,DE  
INL  
INL,DA  
INL,DA/DE  
INL,DE  
LDP  
N2N  
N2N,DA  
N2N,DA/DE  
N3  
N3,DA  
N3N  
NA  
NA,DA  
ND  
ND,DA  
NEM  
NF  
NF,DE,,G  
NF,RI  
NF,,TER  
NF,,,FF  
NG  
NG,DE

CHG  
FPG  
NPR  
NPR  
NPRE  
NPRT  
REM  
RIR  
LVL  
AN  
GF  
GN  
N2NE  
DNGT  
NEMA  
NEME  
NEMT  
SNET  
NUF  
PN  
RP  
RP  
ABS  
RIA  
ACT  
ALF  
SEL  
DEL

ETA  
NEG  
NEG  
NEG  
DNG  
DNGA  
DNGE  
SIN  
DINA  
DINT  
DINE  
LDL  
N2N  
N2NA  
N2NT  
NH  
NH A  
N3N  
NA  
NA A  
ND  
ND A  
NEM  
NF  
SFG  
RIF  
NFY  
FRS  
NG  
SNG

CHG  
FPG  
NPR  
NPR  
NPR  
NPR  
REM  
RIR  
  
GF  
GN  
N2N  
DNG  
NEM  
NEM  
NEM  
SNE  
NUF  
  
RES  
RES  
ABS  
RIA  
ACT  
ALF  
SEL  
DEL  
POL  
POT  
ETA  
NEG  
NEG  
NEG  
DNG  
DNG  
DNG  
SIN  
DIN  
DIN  
DIN  
LDL  
N2N  
N2N  
N2N  
NHE  
NHE  
N3N  
NA  
NA  
ND  
ND  
NEM  
NF  
SFG  
RIF  
NFY  
FRS  
NG  
SNG

N.G,RI  
N.NA  
N.ND  
N.NP  
N.NT  
N.NON  
N.NON  
N.NON  
N.NON/ETA  
N.P  
N.P  
N.T  
N.T  
N.NU  
N.NU,DE  
N.NU,.DL  
N.SCT  
N.SCT,DA  
O.F  
O.NU  
  
N.THS  
N.TOT

NG,RI  
NNA  
NND  
NNP  
NNT  
NON  
NON,DA  
NON,DE  
NON/ETA  
NP  
NP,DA  
NT  
NT,DA  
NU  
NU,DE  
NU,.DL  
SCT  
SCT,DA  
SF  
SF/NU  
STF  
THS  
TOT

RIG  
NNA  
NND  
NNP  
NNT  
SNE  
SNEA  
SNEE  
ETA  
NP  
NP A  
NT  
NT A  
NU  
SFN  
NUD  
SCT  
SCTA  
  
TSL  
TOT

RIG  
NNA  
NND  
NNP  
NNT  
SNE  
SNE  
SNE  
ETA  
NP  
NP  
NT  
NT  
NU  
SFN  
NUD  
SCT  
SCT  
  
STF  
TSL  
TOT

<u>WRENDA</u>	<u>EXFOR</u>	<u>RENDA</u>	<u>CINDA</u>
	EL,POL		POL
	EL,POT		POT
	STF		STF
O,F	SF		
O,NU	SF/NU		
N,ABS	ABS	ABS	ABS
	ACT	ACT	ACT
N,ALF	ALF	ALF	ALF
A,N		AN	
		CHG	CHG
N,EL,DA	EL,DA	DEL	DEL
N,INL,DA	INL,DA	DINA	DIN
N,INL,DE	INL,DE	DINE	DIN
N,INL,DA/DE	INL,DA/DE	DINT	DIN
N,ING	ING	DNG	DNG
N,ING	ING,DA	DNGA	DNG
N,ING	ING,DE	DNGE	DNG
N,ING		DNGT	DNG
N,ETA	ETA	ETA	ETA
N,NON/ETA	NON/ETA	ETA	ETA
		FPG	FPG
N,F,..FF	NF,..FF	FRS	FRS
G,F		GF	GF
G,N		GN	GN
O,LDP	LDP	LDL	LDL
O,LQN		LVL	
N,2N	N2N	N2N	N2N
N,2N	N2N,DA	N2NA	N2N
N,2N		N2NE	N2N
N,2N	N2N,DA/DE	N2NT	N2N
N,3N	N3N	N3N	N3N
N,A	NA	NA	NA
N,A	NA,DA	NA A	NA
N,D	ND	ND	ND
N,D	ND,DA	ND A	ND
N,GEM	GEM	NEG	NEG
N,GEM	GEM,DE	NEGE	NEG
N,GEM	GEM,DA/DE	NEGT	NEG
N,NEM	NEM	NEM	NEM
N,NEM		NEMA	NEM
N,NEM		NEME	NEM
N,NEM		NFMT	NEM
N,F	NF	NF	NF
N,F,..TER	NF,..TER	NFY	NFY
N,G	NG	NG	NG
N,3	N3	NH	NHE
N,3	N3,DA	NH A	NHE
N,NA	NNA	NNA	NNA
N,ND	NND	NND	NND
N,ND	NNP	NNP	NNP
N,NT	NNT	NNT	NNT
N,P	NP	NP	NP
N,P	NP,DA	NP A	NP
		NPR	NPR
		NPRA	NPR
		NPRE	NPR
		NPRT	NPR
N,T	NT	NT	NT
N,T	NT,DA	NT A	NT
N,NU	NU	NU	NU

N, NU, DL	NU, DL	NUD	NUD
N, NU, FF		NUF	NUF
P, N		PN	
		REM	REM
N, ABS, RI	ABS, RI	RIA	RIA
N, F, RI	NF, RI	RIF	RIF
N, G, RI	NG, RI	RIG	RIG
		RIR	RIR
N, RES	-/WID	RP	RFS
N, RES	-/PCS	RP	RES
N, SCT	SCT	SCT	SCT
N, SCT, DA	SCT, DA	SCTA	SCT
N, EL	EL	SEL	SEL
N, F, DE, G	NF, DE, G	SFG	SFG
N, NU, DE	NU, DE	SFN	SFN
N, INL	INL	SIN	SIN
N, NON	NON	SNE	SNE
N, NON	NON, DA	SNEA	SNE
N, NON	NON, DE	SNEE	SNE
N, NON		SNET	SNE
N, G, DE	NG, DE	SNG	SNG
N, TOT	TOT	TOT	TOT
N, THS	THS	TSL	TSL

CINDA SORT

<u>WRENDA</u>	<u>EXFOR</u>	<u>RENDA</u>	<u>CINDA</u>
O.F	SF		
O.LON		LVL	
O.NU	SF/NU		
A.N		AN	
P.N		PN	
N.ABS	ABS	ABS	ABS
	ACT	ACT	ACT
N.ALF	ALF	ALF	ALF
		CHG	CHG
N.EL,DA	EL,DA	DEL	DEL
N.INL,DA	INL,DA	DINA	DIN
N.INL,DE	INL,DE	DINE	DIN
N.INL,DA/DE	INL,DA/DE	DINT	DIN
N.ING	ING	DNG	DNG
N.ING	ING,DA	DNGA	DNG
N.ING	ING,DE	DNGE	DNG
N.ING		DNGT	DNG
N.ETA	ETA	ETA	ETA
N.NON/ETA	NON/ETA	ETA	ETA
		FPG	FPG
N.F,,,FF	NF,,,FF	FRS	FRS
G.F		GF	GF
G.N		GN	GN
O.LDP	LDP	LDL	LDL
N.2N	N2N	N2N	N2N
N.2N	N2N,DA	N2NA	N2N
N.2N		N2NE	N2N
N.2N	N2N,DA/DE	N2NT	N2N
N.3N	N3N	N3N	N3N
N.A	NA	NA	NA
N.A	NA,DA	NA A	NA
N.D	ND	ND	ND
N.D	ND,DA	ND A	ND
N.GEM	GEM	NEG	NEG
N.GEM	GEM,DE	NEGE	NEG
N.GEM	GEM,DA/DE	NEGT	NEG
N.NEM	NEM	NEM	NEM
N.NEM		NEMA	NEM
N.NEM		NEME	NEM
N.NEM		NEMT	NEM
N.F	NF	NF	NF
N.F.,,TER	NF.,,TER	NFY	NFY
N.G	NG	NG	NG
N.3	N3	NH	NHE
N.3	N3,DA	NH A	NHE
N.NA	NNA	NNA	NNA
N.ND	NND	NND	NND
N.NP	NNP	NNP	NNP
N.NT	NNT	NNT	NNT
N.P	NP	NP	NP
N.P	NP,DA	NP A	NP
		NPR	NPR
		NPRA	NPR
		NPRE	NPR
		NPRT	NPR
N.T	NT	NT	NT
N.T	NT,DA	NT A	NT
N.NU	NU	NU	NU
N.NU.,,DL	NU.,,DL	NUD	NUD
N.NU.,,FF		NUF	NUF

N,RES	EL,POL	REM	POL
N,RES	EL,POT	RP	POT
N,ABS,RI	-/WID	RP	REM
N,F,RI	-/PCS	RIA	RES
N,G,RI	ABS,RI	RIF	RIA
	NF,RI	RIG	RIF
	NG,RI	RIR	RIG
		SCT	RIR
N,SCT	SCT	SCTA	SCT
N,SCT,DA	SCT,DA	SEL	SCT
N,EL	EL	SFG	SEL
N,F,DE,,G	NF,DE,,G	SFN	SFG
N,NU,DE	NU,DE	SIN	SFN
N,INL	INL	SNE	SIN
N,NON	NON	SNEA	SNE
N,NON	NON,DA	SNEE	SNE
N,NON	NON,DE	SNET	SNE
N,NON		SNG	SNE
N,G,DE	NG,DE	TOT	SNG
	STF	TOT	STF
N,TOT	TOT	TSL	TOT
N,THS	THS		TSL

Proposed WRENDA annual schedule

1. 1. Feb. Country revisions and additions received by NDS.
2. Feb/March NDS includes these revisions into Request and Status files.
3. 15. March File closed.
4. 15. April Material submitted to publication division.
5. May/June NDS prepares country retrievals.
6. 15 June Country retrievals sent to other centres for distribution.
7. 30 June Printing of WRENDA completed; distributed by IAEA.

The above schedule will start for the publication of WRENDA 75. WRENDA 73 was issued in March 1973 and we envisage the schedule below for the publication of WRENDA 74.

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|--------------|--|
| 28. Feb 1973 | RENDA master file received by NDS from CCDN.   |
| March - May  | File conversion.   |
| June         | 4-Centre Meeting. Final approval of system and schedules.                                      |
| July         | Clean up Status File.  |
| Aug.         | Country retrievals made by NDS.  |
| 31 Aug.      | Country retrievals shipped to other centres.   |
| 1 Feb 1974   | Country revisions and additions received by NDS.<br>Then continue as an normal schedule above. |