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===== Fixup
PROGRAM FIXUP Fixup
===== Fixup
VERSION 84-1 (NOVEMBER 1984) Fixup
VERSION 86-1 (JANUARY 1986) *IMPROVED BASED ON USER COMMENTS Fixup
*FORTRAN-77/H VERSION Fixup
VERSION 86-2 (JUNE 1986) *ALLOW CREATION OF SECTIONS OF CROSS Fixup
SECTIONS WHICH ARE NOT PRESENT IN Fixup
THE ORIGINAL EVALUATION Fixup
VERSION 88-1 (JULY 1988) *OPTION...INTERNALLY DEFINE ALL I/O Fixup
FILE NAMES (SEE, SUBROUTINE FILEIO Fixup
FOR DETAILS). Fixup
*IMPROVED BASED ON USER COMMENTS. Fixup
VERSION 89-1 (JANUARY 1989) *PSYCHOANALYZED BY PROGRAM FREUD TO Fixup
INSURE PROGRAM WILL NOT DO ANYTHING Fixup
CRAZY. Fixup
*UPDATED TO USE NEW PROGRAM CONVERT Fixup
KEYWORDS. Fixup
*ADDED LIVERMORE CIVIC COMPILER Fixup
CONVENTIONS. Fixup
VERSION 89-2 (MARCH 1989) *ADDED ENDF-6 SUMMATION RULES AND Fixup
DEFINED MF AND MT NUMBERS. PROGRAM Fixup
WILL NOW USE MF=1, MT=451 TO DEFINE Fixup
THE ENDF FORMAT OF THE DATA (E.G., Fixup
ENDF-6 OR EARLIER) AND USE THE Fixup
CORRECT SUMMATION RULES FOR EACH Fixup
VERSION OF THE ENDF FORMAT. IF Fixup
MF=1, MT=451 IS NOT PRESENT PROGRAM Fixup
WILL USE ENDF-6 SUMMATION Fixup
CONVENTIONS AS A DEFAULT. Fixup
VERSION 90-1 (JUNE 1990) *UPDATED BASED ON USER COMMENTS Fixup
*ADDED PHOTON INTERACTION, MF=23 Fixup
VERSION 91-1 (JUNE 1991) *ADDED FORTRAN SAVE OPTION Fixup
*NEW MORE CONSISTENT ENERGY OUTPUT Fixup
ROUTINE Fixup
VERSION 92-1 (JANUARY 1992) *ADDED OPTION TO CALCULATE RATIOS, Fixup
E.G., CAPTURE/FISSION AND PRODUCTS, Fixup
NU-BAR*FISSION - AND OUTPUT THE Fixup
RESULTS IN THE ENDF FORMAT (SEE, Fixup
BELOW - CREATING RATIOS AND PRODUCTS) Fixup
*ALLOW TOTAL NU-BAR (MF=1, MT=452) TO Fixup
BE USED IN DEFINING RATIOS OR Fixup
PRODUCTS. Fixup
*ALLOW ALL CROSS SECTIONS TO BE PUT Fixup
ON A UNIFORM ENERGY GRID. Fixup
*NOTE, CHANGE IN INPUT FORMAT FOR Fixup
RANGES OF MT NUMBERS Fixup
*COMPLETELY CONSISTENT I/O ROUTINES - Fixup
TO MINIMIZE COMPUTER DEPENDENCE. Fixup
VERSION 93-1 (JULY 1993) *CORRECTED ALGORITHM TO CREATE UNIFORM Fixup
ENERGY GRID. Fixup
VERSION 94-1 (JANUARY 1993) *VARIABLE ENDF/B DATA FILENAMES Fixup
TO ALLOW ACCESS TO FILE STRUCTURES Fixup
(WARNING - INPUT PARAMETER FORMAT Fixup
HAS BEEN CHANGED) Fixup
*INCREASED PAGE SIZE FROM 1002 TO Fixup
12000 DATA POINTS. Fixup
*CLOSE ALL FILES BEFORE TERMINATING Fixup
(SEE, SUBROUTINE ENDIT) Fixup
VERSION 96-1 (JANUARY 1996) *COMPLETE RE-WRITE Fixup
*IMPROVED COMPUTER INDEPENDENCE Fixup
*ALL DOUBLE PRECISION Fixup
*ON SCREEN OUTPUT Fixup
*UNIFORM TREATMENT OF ENDF I/O Fixup
*IMPROVED OUTPUT PRECISION Fixup
*DEFINED SCRATCH FILE NAMES Fixup
*INCREASED PAGE SIZE FROM 12000 TO Fixup
36000 DATA POINTS. Fixup
VERSION 99-1 (MARCH 1999) *CORRECTED CHARACTER TO FLOATING Fixup
POINT READ FOR MORE DIGITS Fixup

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	*UPDATED TEST FOR ENDF FORMAT	Fixup
	VERSION BASED ON RECENT FORMAT CHANGE	Fixup
	*GENERAL IMPROVEMENTS BASED ON	Fixup
	USER FEEDBACK	Fixup
VERSION 99-2 (JUNE 1999)	*ASSUME ENDF-6, NOT 5, IF MISSING	Fixup
	MF=1, MT-451.	Fixup
	*FIXED CREATION OF SECTIONS	Fixup
VERS. 2000-1 (FEBRUARY 2000)	*GENERAL IMPROVEMENTS BASED ON	Fixup
	USER FEEDBACK	Fixup
VERS. 2002-1 (MAY 2002)	*OPTIONAL INPUT PARAMETERS	Fixup
	*SUMMATION RULES ARE DEFINED BASED	Fixup
	ON CONTENTS OF TABLES.	Fixup
VERS. 2004-1 (JAN. 2004)	*GENERAL UPDATE BASED ON USER FEEDBACK	Fixup
	*INCREASED PAGE SIZE FROM 36000 TO	Fixup
	60000 DATA POINTS.	Fixup
VERS. 2005-1 (JAN. 2005)	*UPDATED MT CREATION TO ALLOW MAT =0	Fixup
	INDICATING CREATE FOR ALL MATS.	Fixup
VERS. 2007-1 (JAN. 2007)	*CHECKED AGAINST ALL ENDF/B-VII DATA	Fixup
	*INCREASED PAGE SIZE FROM 60,000 TO	Fixup
	600,000 DATA POINTS.	Fixup
VERS. 2007-2 (OCT. 2007)	*ADDED MT=16 AS SUM MT=875 THRU 891	Fixup
	*72 CHARACTER FILE NAMES	Fixup
VERS. 2010-1 (Apr. 2010)	*Defining cross sections by summation	Fixup
	to now mandatory - either build-in	Fixup
	rules or by user input.	Fixup
VERS. 2011-1 (March 2011)	*Added new MT # to allowed and	Fixup
	summation rules.	Fixup
VERS. 2012-1 (Aug. 2012)	*Corrected definition of MT=3 to avoid	Fixup
	double counting of MT=18.	Fixup
	*Extended incident particle list to	Fixup
	include photon (ZA = 0).	Fixup
	*Added CODENAME	Fixup
	*32 and 64 bit Compatible	Fixup
	*Added ERROR stops.	Fixup
VERS. 2015-1 (Jan. 2015)	*Extended OUT9.	Fixup
	*Replaced ALL 3 way IF Statements	Fixup
		Fixup
	OWNED, MAINTAINED AND DISTRIBUTED BY	Fixup
	-----	Fixup
	THE NUCLEAR DATA SECTION	Fixup
	INTERNATIONAL ATOMIC ENERGY AGENCY	Fixup
	P.O. BOX 100	Fixup
	A-1400, VIENNA, AUSTRIA	Fixup
	EUROPE	Fixup
		Fixup
	ORIGINALLY WRITTEN BY	Fixup
	-----	Fixup
	Dermott E. Cullen	Fixup
		Fixup
	PRESENT CONTACT INFORMATION	Fixup
	-----	Fixup
	Dermott E. Cullen	Fixup
	1466 Hudson Way	Fixup
	Livermore, CA 94550	Fixup
	U.S.A.	Fixup
	Telephone 925-443-1911	Fixup
	E. Mail RedCullen1@Comcast.net	Fixup
	Website http://home.comcast.net/~redcullen1	Fixup
		Fixup
	PURPOSE	Fixup
	=====	Fixup
	THIS PROGRAM IS DESIGNED TO READ EVALUATED DATA IN THE ENDF	Fixup
	FORMAT, PERFORM CORRECTIONS AND OUTPUT THE RESULT IN THE ENDF	Fixup
	FORMAT. TWO TYPES OF CORRECTIONS ARE POSSIBLE (1) AUTOMATIC AND	Fixup
	(2) OPTIONAL (BASED ON USER INPUT) CORRECTIONS.	Fixup
		Fixup
	ONE OF THE MOST IMPORTANT FUNCTIONS OF THIS PROGRAM IS TO	Fixup
	RE-DEFINE ALL REDUNDANT CROSS SECTIONS (E.G. TOTAL) TO BE EXACTLY	Fixup
	EQUAL TO THE SUM OF ITS PARTS. THIS PROCEDURE ELIMINATES THE	Fixup
	PROBLEM WITH MANY ENDF EVALUATIONS, WHERE DUE TO THE USE OF	Fixup
	NON-LINEAR INTERPOLATION LAWS THE TOTAL MAY BE EQUAL TO THE SUM	Fixup

ALPHA (MT=254) = CAPTURE (MT=102)/FISSION (MT=18) Fixup

ETA (MT=255) = NU-BAR (MT=452)*FISSION (MT=18)/ABSORPTION (MT=27) Fixup

ABSORPTION (MT=27) = FISSION (MT=18) + SUM (MT=102 THROUGH 116) Fixup

AS YET THERE IS NO STANDARD DEFINITION OF MT NUMBERS FOR RATIO OR PRODUCT DATA. YOU ARE FREE TO USE ANY MT NUMBERS NORMALLY NOT USED IN THE ENDF. HOWEVER, IT WILL THEN BE YOUR RESPONSIBILITY TO PROPERLY INTERPRET THE RESULTS, I.E., NOBODY ELSE WILL HAVE ANY IDEA HOW TO INTERPRET A TABLE OF DATA ASSOCIATED WITH THE MT NUMBERS YOU HAVE USED. Fixup

THIS PROGRAM CAN BE ONLY DIRECTLY DEFINE RATIOS AND PRODUCTS USING TWO MT NUMBERS = BINARY OPERATIONS, E.G., DEFINE THE CAPTURE TO FISSION RATIO, OR DEFINE THE PRODUCT NU-BAR*FISSION. Fixup

THIS PROGRAM CANNOT DIRECTLY DEFINE RATIO OR PRODUCT OF A SUM OF SECTIONS TO THE SUM OF ANOTHER SET OF SECTIONS. HOWEVER, THIS CAN BE DONE INDIRECTLY BY FIRST DEFINING A DUMMY MT NUMBER (ANY MT NUMBER NOT NORMALLY USED IN ENDF) TO BE A SUM OF SECTIONS AND A SECOND DUMMY MT NUMBER TO BE A SECOND SUM OF SECTIONS. YOU CAN THEN DEFINE RATIO OR PRODUCT YOU REQUIRE TO BE THE RATIO OF THESE TWO DUMMY MT NUMBERS. Fixup

FOR EXAMPLE, TO DEFINE ETA, Fixup

- 1) FIRST DEFINE (MT=27) = (MT=27) + (SUM OF MT=102 THROUGH 116) Fixup
- 2) NEXT DEFINE (MT=333) = (MT=452)*(MT=18) Fixup
- 3) LAST DEFINE (MT=255) = (MT=333)/(MT=27) Fixup

DO NOT FORGET TO TURN ON THE CREATE SECTION OPTION (ON THE FIRST INPUT LINE) AND INPUT THE FIRST TWO LINES OF SECTION MT=255 - OTHERWISE YOU WILL NOT GET ANY ENDF FORMATTED OUTPUT. Fixup

THE ONLY SPECIAL CONVENTIONS USED BY THIS PROGRAM IN CALCULATING RATIOS ARE WHEN THE DENOMINATOR OF THE RATIO IS ZERO. IN THIS CASE IF THE NUMERATOR IS ALSO ZERO THE RATIO IS DEFINED TO BE ONE. IN THIS CASE IF THE NUMERATOR IS NOT ZERO THE RATIO IS DEFINED TO BE ZERO. Fixup

ENDF FORMAT Fixup

===== Fixup

THIS PROGRAM MAY BE USED WITH DATA IN ANY VERSION OF THE ENDF FORMAT (I.E. ENDF-1, 2, 3, 4, 5 OR 6 FORMAT). SINCE A PAGING SYSTEM IS USED STORE CROSS SECTION TABLES ON SCRATCH FILES THERE IS NO LIMIT TO THE SIZE OF TABLES (E.G. THE TOTAL CROSS SECTION MAY BE REPRESENTED BY 200,000 TABULATED POINTS). Fixup

WARNING Fixup

===== Fixup

- (1) FOR EACH SECTION OF CROSS SECTIONS (I.E. EACH MT, MF=3) IN THE ORIGINAL EVALUATION (I.E. ENDF/B DATA READ) ONE SECTION OF DATA WILL BE OUTPUT, UNLESS THE SECTION HAS BEEN DELETED. THIS INCLUDES ANY SECTIONS WHICH ARE NOT PRESENT IN THE ORIGINAL EVALUATION, BUT THE USER INDICATES (BY INPUT) SHOULD BE CREATED. Fixup

THE PROGRAM WILL NOT OUTPUT ANY SECTION RECONSTRUCTED BY SUMMATION UNLESS THE CORRESPONDING SECTION (MT NUMBER) IS PRESENT IN THE ORIGINAL EVALUATION OR USER INPUT INDICATES SHOULD BE CREATED AND OUTPUT. THIS IS (A) BECAUSE THE PROGRAM CANNOT DEFINE THE PARAMETERS TO APPEAR ON THE FIRST TWO LINES OF THE SECTION, (B) TO AVOID OUTPUTTING TOO MUCH DATA WHICH THE USER MAY NOT BE INTERESTED IN. Fixup

- (2) FOR ANY SECTIONS THAT DO NOT APPEAR IN THE ORIGINAL DATA THE USER MAY SPECIFY THAT THEY BE DEFINED BY SUMMATION. ANY SUCH SECTION MAY BE USED BE DEFINE SUBSEQUENT SUMS, BUT THE SECTION ITSELF WILL NOT BE OUTPUT (E.G. GENERALLY MT=27 AND 101 ARE NOT PRESENT IN EVALUATIONS. HOWEVER, THE BUILT-IN SUMMATION RULES OF THIS PROGRAM USES THE ENDF SUMMATION RULES TO DEFINE MT=27 AND 101, WHICH IN TURN ARE USED TO DEFINE THE Fixup

TO A SUM IS MERELY COPIED FROM C TO A. IF MORE SECTIONS WILL
 CONTRIBUTE TO THE SUM THE DATA IN A IS TRANSFERRED TO B, A
 SECTION OF DATA FROM C IS ADDED TO THE DATA IN B AND STORED IN
 A. THE CYCLE OF ADDED C AND B TO A, FOLLOWED BY MOVING A TO B
 IS CONTINUED UNTIL ALL CONTRIBUTING SECTIONS HAVE BEEN ADDED.
 THE SUM IS THEN COPIED FROM A TO D. IF NEWLY CONSTRUCTED SECTION
 IS REQUIRED FOR ANY LATER SUMMATIONS IT IS ALSO COPIED TO E.
 THE CYCLE OF ADDED SECTIONS FROM C AND B TO A IS REPEATED FOR
 EACH REQUIRED SUMMATION REACTION. IN ADDITION TO SECTIONS FROM
 C, AFTER THE FIRST SUMMATION SECTIONS MAY ALSO BE ADDED TO A
 FROM E (THE CONTRIBUTION OF NEW RECONSTRUCTED CROSS SECTIONS).
 WHEN ALL REQUIRED SECTIONS HAVE BEEN RECONSTRUCTED THE NEW
 SECTIONS WILL BE ON E AND THE ORIGINAL SECTIONS ON C.
 ISCRC - SCRATCH FILE FROM WHICH ORIGINAL DATA IS READ.
 IS CRA - SCRATCH FILE ONTO WHICH SUM FOR ONE SECTION IS WRITTEN.
 ISCRD - SCRATCH FILE ONTO WHICH ALL SUM CROSS SECTIONS ARE
 WRITTEN.
 ISCRE - SCRATCH FILE ONTO WHICH ALL SUM CROSS SECTIONS WHICH
 ARE REQUIRED FOR LATER SUMS ARE WRITTEN.
 ISCRB - UTILITY SCRATCH FILE USED TO CREATE SUM CROSS SECTIONS.
 TABA - ARRAY INTO WHICH SUMS ARE WRITTEN.
 TABB - ARRAY INTO WHICH PARTIAL SUMS ARE WRITTEN.
 TABC - ARRAY INTO WHICH ORIGINAL DATA IS READ.

PASS4
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 CROSS SECTIONS ARE READ FROM ISCRC (ORIGINAL) AND ISCRD (NEW)
 AND ARE WRITTEN IN THE ENDF FORMAT ON OTAPE. THE BEGINNING OF
 EACH SECTION OF ORIGINAL DATA IS READ FROM ISCRC (TO DEFINE
 SECTION HEADER INFORMATION). IF THIS MT HAS NOT BEEN RECONSTRUCTED
 ON ISCRD THE ORIGINAL SECTION IS OUTPUT. IF THE SECTION HAS BEEN
 RECONSTRUCTED THE ORIGINAL SECTION IS SKIPPED AND THE NEW SECTION
 IS OUTPUT.
 OTAPE - OUTPUT DATA IN THE ENDF FORMAT.
 ISCRC - SCRATCH FILE FROM WHICH ORIGINAL DATA IS READ.
 ISCRD - SCRATCH FILE FROM WHICH NEW DATA IS READ.
 TABC - ARRAY INTO WHICH CROSS SECTIONS ARE READ FROM SCRATCH
 AND WRITTEN TO OTAPE

I/O FILE DEFINITIONS
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UNIT	DESCRIPTION
2	INPUT PARAMETERS.
3	OUTPUT REPORT.
10	ORIGINAL DATA IN THE ENDF FORMAT.
11	FINAL DATA IN THE ENDF FORMAT.
12	SCRATCH FILE
14	SCRATCH FILE
15	SCRATCH FILE
16	SCRATCH FILE
17	SCRATCH FILE

OPTIONAL STANDARD FILE NAMES (SEE SUBROUTINE FILIO1 AND FILIO2)
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UNIT	FILE NAME	FORMAT
2	FIXUP.INP	BCD
3	FIXUP.LST	BCD
10	ENDFB.IN	BCD
11	ENDFB.OUT	BCD
12-17	(SCRATCH)	BINARY

INPUT LINES
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LINE	COLUMNS	FORMAT	DESCRIPTION
1	1-14	14I1	INPUT OPTIONS AS DESCRIBED ABOVE. EACH COLUMN OF THE INPUT LINE CONTROLS ONE OF THE TESTS/CORRECTIONS DESCRIBED ABOVE. TESTS/CORRECTION 1-14 (NOT ALL

			IMPLEMENTED YET) CORRESPOND TO COLUMNS	Fixup
			1-14 OF THIS INPUT LINE AND ARE TREATED	Fixup
			AS FOLLOWS,	Fixup
			= 0 - DO NOT PERFORM TEST/CORRECTION.	Fixup
			= 1 - PERFORM TEST/CORRECTION.	Fixup
			FOR MT EXCLUSION FROM THRESHOLD TESTS	Fixup
			(COLUMN 2), DELETION (COLUMN 4), OR	Fixup
			SUMMATION (COLUMN 5) THE INPUT OPTION	Fixup
			MAY BE,	Fixup
			= 1 - READ RULES FROM INPUT	Fixup
			= 2 - USE BUILT-IN RULES	Fixup
2	1-72	A72	ENDF INPUT DATA FILENAME	Fixup
			(STANDARD OPTION = ENDFB.IN)	Fixup
3	1-72	A72	ENDF OUTPUT DATA FILENAME	Fixup
			(STANDARD OPTION = ENDFB.OUT)	Fixup
4-M	1-5	FREE	CHARACTER (S,D,T,R,*) FOLLOWED BY BLANK OR	Fixup
		FORM	MT NUMBER	Fixup
			- THE ALLOWED CHARACTERS ARE,	Fixup
			- S OR BLANK = SUM (OR DIFFERENCES)	Fixup
			- D = DELETE	Fixup
			- T = NO THRESHOLD ENERGY CORRECTIONS	Fixup
			- R = RATIO	Fixup
			- * = PRODUCT	Fixup
	6-72	FREE	UP TO 10 LOWER AND UPPER MT RANGES WHICH	Fixup
		FORM	WILL BE USED TO DEFINE THE RECONSTRUCTED	Fixup
			CROSS SECTION OR TO DEFINE MT RANGES WHICH	Fixup
			ARE EXCLUDED FROM THRESHOLD TESTS.	Fixup
				Fixup
			EACH MT NUMBER IS DEFINED BY A CONTINUOUS	Fixup
			STRING OF DIGITS, POSSIBILITY PRECEDED BY	Fixup
			A - (MINUS SIGN). EACH MT NUMBER MUST BE	Fixup
			BLANK OR OTHERWISE (NOT A DIGIT) DELIMITED.	Fixup
				Fixup
			COLUMNS 6-72 MAY CONTAIN STRINGS OF DIGITS	Fixup
			THE FIRST DIGIT STRING OF EACH PAIR MAY BE	Fixup
			PRECEDED BY A - (MINUS SIGN).	Fixup
				Fixup
			EACH LINE WILL BE INTERPRETED AS FOLLOWS,	Fixup
				Fixup
			*SUMMATION (OR DIFFERENCES)	Fixup
			-----	Fixup
			COLUMNS 1-5 = S OR BLANK FOLLOWED BY THE	Fixup
			MT NUMBER TO BE DEFINED BY SUMMATION	Fixup
				Fixup
			COLUMNS 6-72 = UP TO 10 MT RANGE (PAIRS OF	Fixup
			MT NUMBERS) TO BE USED TO DEFINED THE SUM.	Fixup
			IF THE FIRST MT NUMBER OF A PAIR IS	Fixup
			NEGATIVE THE RANGE OF MT NUMBERS IS	Fixup
			SUBTRACTED - AT LEAST ONE RANGE MUST BE	Fixup
			SPECIFIED.	Fixup
				Fixup
			*DELETIONS	Fixup
			-----	Fixup
			COLUMNS 1-5 = D FOLLOWED BY BLANKS	Fixup
				Fixup
			COLUMNS 6-72 CONTAIN UP TO 10 MT RANGE	Fixup
			(PAIRS OF MT NUMBERS), EACH RANGE DEFINING	Fixup
			A RANGE OF MT NUMBERS TO BE DELETED - AT	Fixup
			LEAST ONE RANGE MUST BE SPECIFIED.	Fixup
				Fixup
			*EXCLUSION FROM THRESHOLD TESTS	Fixup
			-----	Fixup
			COLUMNS 1=5 = T FOLLOWED BY BLANKS	Fixup
				Fixup
			COLUMNS 6-72 CONTAIN UP TO 10 MT RANGE	Fixup
			(PAIRS OF MT NUMBERS), EACH RANGE DEFINING	Fixup
			A RANGE OF MT NUMBERS WHOSE THRESHOLD	Fixup
			ENERGY WILL NOT BE CHECKED - AT LEAST ONE	Fixup
			RANGE MUST BE SPECIFIED.	Fixup
				Fixup
			*RATIO	Fixup

			-----		Fixup
			COLUMNS 1-5 = R FOLLOWED BY THE MT NUMBER		Fixup
			TO BE DEFINED BY A RATIO		Fixup
					Fixup
			COLUMNS 6-72 CONTAINS 2 MT NUMBERS TO BE		Fixup
			USED TO DEFINE THE RATIO.		Fixup
					Fixup
			*PRODUCT		Fixup
			-----		Fixup
			COLUMNS 1-5 = * FOLLOWED BY THE MT NUMBER		Fixup
			TO BE DEFINED BY A PRODUCT		Fixup
					Fixup
			COLUMNS 6-72 CONTAINS 2 MT NUMBERS TO BE		Fixup
			USED TO DEFINE THE PRODUCT.		Fixup
					Fixup
			CONVENTIONS		Fixup
			-----		Fixup
			*UP TO 20 DELETIONS AND 20 SUMMATIONS OR		Fixup
			RATIOS OR PRODUCTS MAY BE SPECIFIED.		Fixup
			*ONLY 1 EXCLUSION FROM THRESHOLD TESTS		Fixup
			MAY BE SPECIFIED (THE 1 LINE MAY CONTAIN		Fixup
			UP TO 10 MT RANGES TO EXCLUDE FROM TESTS).		Fixup
			*INPUT IS TERMINATED BY INPUTTING 0 OR		Fixup
			BLANK IN COLUMNS 1-72 (I.E. THE LAST		Fixup
			INPUT LINE MUST BE BLANK).		Fixup
			*THE UPPER LIMIT OF EACH RANGE MUST BE AT		Fixup
			LEAST AS BIG AS THE LOWER LIMIT (IN		Fixup
			ABSOLUTE VALUE).		Fixup
			*FOR RECONSTRUCTION POSITIVE MT RANGES WILL		Fixup
			BE ADDED TO THE SUM AND NEGATIVE MT RANGES		Fixup
			WILL BE SUBTRACTED.		Fixup
			*IF INPUT OPTION 2 (FIRST INPUT LINE) IS		Fixup
			0 THRESHOLD EXCLUSION IS NOT ALLOWED.		Fixup
			*IF INPUT OPTION 4 (FIRST INPUT LINE) IS		Fixup
			0 DELETIONS ARE NOT ALLOWED.		Fixup
			*IF INPUT OPTION 5 (FIRST INPUT LINE) IS		Fixup
			0 SUMMATIONS AND RATIOS ARE NOT ALLOWED.		Fixup
N-K			IF THE USER SPECIFIES THAT SECTIONS WHICH		Fixup
			ARE NOT PRESENT IN THE ORIGINAL EVALUATION		Fixup
			MAY BE CREATED, TWO LINES MUST BE INPUT FOR		Fixup
			EACH SECTION TO BE CREATED. THE TWO LINES		Fixup
			DEFINE (C1, C2, L1 AND L2) FOR EACH OF THE		Fixup
			FIRST TWO LINES OF THE SECTION TO BE		Fixup
			CREATED. THE FIRST LINE ALSO DEFINES (MAT		Fixup
			AND MT). (N1, N2) ARE ALWAYS ZERO ON THE		Fixup
			FIRST LINE AND WILL BE CALCULATED BY THE		Fixup
			PROGRAM FOR THE SECOND LINE.		Fixup
FIRST	1-11	E11.4	ZA OF SECTION TO BE CREATED		Fixup
LINE	12-22	E11.4	AWRE OF SECTION TO BE CREATED		Fixup
	23-33	I11	L1 OF SECTION TO BE CREATED		Fixup
	34-44	I11	L2 OF SECTION TO BE CREATED		Fixup
	45-48	I4	MAT OF SECTION TO BE CREATED		Fixup
	49-51	I3	MT OF SECTION TO BE CREATED		Fixup
SECOND	1-11	E11.4	C1 OF SECTION TO BE CREATED		Fixup
LINE	12-22	E11.4	C2 OF SECTION TO BE CREATED		Fixup
	23-33	I11	L1 OF SECTION TO BE CREATED		Fixup
	34-44	I11	L2 OF SECTION TO BE CREATED		Fixup
			*PAIRS OF LINES MAY BE IN ANY MAT/MT ORDER		Fixup
			(E.G., THEY NEED NOT BE IN ASCENDING		Fixup
			MAT/MT ORDER).		Fixup
			*UP TO 50 PAIRS OF LINES MAY BE USED TO		Fixup
			DEFINE SECTIONS TO BE CREATED. THE LIST		Fixup
			IS TERMINATED WHEN THE FIRST LINE OF A		Fixup
			PAIR CONTAINS A ZERO (OR BLANK) MAT AND/OR		Fixup
			MT.		Fixup
M-N			IF THE USER SPECIFIES THAT ENERGIES WHICH		Fixup
			ARE NOT PRESENT IN THE ORIGINAL EVALUATION		Fixup
			MAY BE INSERTED, ONE LINE MUST BE INPUT FOR		Fixup
			EACH ENERGY TO BE INSERTED.		Fixup
	1-11	E11.4	ENERGY TO BE INSERTED		Fixup
	12-15	I4	MAT IN WHICH TO INSERT ENERGY = 0 = ALL		Fixup

