Technical Information Memorandum

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Subject: SOURCES OF DATA FOR BIDOSE SIMULATIONS USED IN BEDDED SALT REPOSITORY ANALYSIS	

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ABSTRACT

Sources of parameter data for BIDOSE simulations are documented. These simulations were used in bedded salt repository analysis. Water system parameters are presented for a southwestern river system (patterned after the lower Colorado River). Nuclide-specific parameters are given also.

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1. WATER SYSTEM PARAMETERS

The purpose of this memo is to document the sources of data for parameter estimates used in BIODOSE for simulating a water system similar to the lower Colorado River. The main stem of the Colorado River below Lake Mead was modeled. Three compartments were utilized in the BIODOSE model: river water, river sediment, and topsoil. Previous studies have indicated that the other compartments of river systems contribute negligible amounts to overall dose predictions (Ref. 1). The water system parameter values are summarized in Table 1-1. In addition, the maximum time for continuous irrigation of topsoil (TMAX) was set at 10,000 years (instead of 1000 years for the Columbia-River-like system) because this model is more sensitive to irrigation time and because the leach time for the bedded salt repository simulation was 10,000 years. This higher value of irrigation time will give more conservative dose predictions at times close to the arrival of nuclides from the aquifer into the river but more realistic dose predictions at longer times after the nuclides reach the biosphere and begin buildup in the topsoil. Other than the water system parameter values given here, the values remain the same as the baseline, or default, values in BIODOSE (Ref. 8).

The revised quasi-steady-state compartment concentration solution was utilized as presented in Refs. 8 and 9.

For comparison purposes, BIODOSE predictions of potential hazard from spent fuel for a Columbia-River-like system and a Colorado-River-like system are plotted in Figs. 1-1 and

TABLE 1-1
SIMULATION PARAMETERS FOR A SOUTHWESTERN RIVER

PARAMETER		VALUE	REFERENCES
F	(net flow of river, includes losses and irrigation of non-eatable crops, such as cotton)	$2.7 \times 10^9 \text{ m}^3/\text{yr}$	2
I	(irrigation withdrawal rate, including Mexican withdrawal estimate based on the same I/F ratio as non-Mexican area and excluding cotton irrigation)	$6.6 \times 10^9 \text{ m}^3/\text{yr}$	3
A_t	(area of topsoil, including Mexican area estimate based on I/A_t value for non-Mexican area and excluding cotton area)	$2.8 \times 10^9 \text{ m}^2$	3,4,5
V_t	(volume of topsoil, with 12 inch depth)	$8.5 \times 10^8 \text{ m}^3$	
R	(rainfall, 4 in/yr times A_t)	$2.8 \times 10^8 \text{ m}^3/\text{yr}$	6,4
E	(evapotranspiration, I plus R)	$6.88 \times 10^9 \text{ m}^3/\text{yr}$	
A_w, A_s	(area of river and sediment, based on estimate of 1/4 of water area of region)	$3.4 \times 10^8 \text{ m}^2$	7
V_w	(volume of river)	$3.1 \times 10^9 \text{ m}^3$	6,8
V_s	(volume of sediment, 12 inches times A_s)	$1.0 \times 10^8 \text{ m}^3$	

TABLE 1-1
SIMULATION PARAMETERS FOR A SOUTHWESTERN RIVER (Continued)

PARAMETER		VALUE	REFERENCES
E_r	(topsoil erosion rate)	1.4×10^{-4} m/yr	7
R_s	(suspended sediment in irrigation water, assumed equal to $E_r \times \Delta t / l$)	6.1×10^{-5}	
v_w	(river sedimentation rate, assumed equal to $0.1 R_s F / \Delta w$)	4.8×10^{-5} m/yr	
R	(fraction of deposited activity remaining on crops, set to equal to zero since no sprinkler irrigation in region)	0	3
f_{milk}	(fraction of irrigation withdrawal rate used on crops for dairy cattle producing milk, assumed value)	0.05	
f_{beef}	(fraction of irrigation withdrawal rate used on crops for beef production, based on reported feed and food water uses)	0.68	3
f_{veg}	(fraction of irrigation withdrawal rate used on crops for human consumption, based on reported feed and food water uses)	0.27	3

Figure 1-1 Population Potential Hazard Prediction From Spent Fuel for the Columbia-River-Like Water System

1-2, respectively. The significantly higher predicted hazards for the Colorado-like system are due to the following:

- The higher irrigation withdrawal relative to gross river flow rate ($I/(F+I) = 71\%$ versus 4% for the Columbia-like system)
- The higher irrigation depth ($I/A_t \approx 2$ versus 1 m)
- The decrease of irrigation water percolation back to the river ($I+R-E = 0$ versus 1 for the Columbia, where I = irrigation rate, R = rainfall rate, E = evapotranspiration rate, A_t = area of topsoil, and F = net river outflow rate).

Figure 1-2 Population Potential Hazard Prediction From Spent Fuel for the Colorado-River-Like Water System

The Colorado-River-like system predictions of potential hazards from nuclides having low sorption to topsoil are very sensitive to the assumption that there is no excess irrigation (i.e., that $E=I+R$). A simulation was performed with evapotranspiration equaling 80% of the sum of rainfall and irrigation. The result is illustrated in Fig. 1-3. The assumption of excess irrigation, which presumably flushes salts through the root zone to prevent excessive accumulations, may be more realistic. However, the assumption of no yearly net movement of water through the topsoil is in keeping with the "worst case" scenario, which the Colorado-River-like simulation is intended to represent.

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Figure 1-3 Sensitivity of BLODOSE Colorado-River-Like Simulation to Soil Evapotranspiration Rates

2.

NUCLIDE-SPECIFIC PARAMETERS

The nuclide-specific parameters in BIDOSE for the nuclides used in the bedded salt repository analysis are discussed in this section. The sources of parameters of the 14 new nuclides added to the list are also given. The rationale for adding these new nuclides and their treatment in NUTRAN are discussed in detail in Ref. 9.

The list of radionuclides analyzed is given in Table 2-1. The fourteen new nuclides required a whole set of new parameters. The sources of the data for the parameters are listed in Table 2-2.

The 50-year dose factors resulting from 50-year exposures ($DF50(r,i,j)$) in the code, where r = nuclide code number, i = category (ingestion, exposure, immersion), and j = organ code number) were computed from the dose factors obtained from the literature (Table 2-2) according to the following equations:

$$DF50(r,i,j) = DAF(r,i,j) DF(r,i,j),$$

where

$DAF(r,i,j)$ is the factor to convert a one-year-exposure dose factor to a fifty-year-exposure dose factor

$$DAF(r,i,j) = \frac{\{t_{50}\lambda(r,j) - \exp [-(t_{50}-t_1)\lambda(r,j)] + \exp [-t_{50}\lambda(r,j)]\}}{\{t_1\lambda(r,j) - \exp [-(t_{50}-t_1)\lambda(r,j)] + \exp [-t_{50}\lambda(r,j)]\}}$$

TABLE 2-1
NEW NUCLIDE LIST FOR BIODOSE

NAME	CATEGORY (J VALUE)	NEW CODE NUMBER (R VALUE)	OLD CODE NUMBER	PARENT (NEW CODE NUMBER)
AM243	3	1	3	1
AM241	3	2	4	2
PU240	3	3	6	3
PU239	3	4	7	4
PU238	3	5	8	5
NP237	3	6	9	6
U238	3	7	-	7
U235	3	8	-	8
U234	3	9	-	7
U233	3	10	10	6
PA231	3	11	11	8
TH232	3	12	-	12
TH230	3	13	12	9
TH229	3	14	13	10
AC227	3	15	-	11
RA228	3	16	-	12
RA226	3	17	14	13
PO210	3	18	15	19
PB210	3	19	16	17
EU154	2	20	17	20
SM151	2	21	-	21
CS137	2	22	20	22
CS135	2	23	35	23
I129	1	24	22	24
SN126	2	25	23	25
PD107	2	26	-	26
TC99	1	27	25	27
NB93M	2	28	27	29
ZR93	2	29	29	29

TABLE 2-1
NEW NUCLIDE LIST FOR BIODOSE (Continued)

NAME	CATEGORY (J_VALUE)	NEW CODE NUMBER (R_VALUE)	OLD CODE NUMBER	PARENT (NEW CODE NUMBER)
SR90	2	30	32	30
SE79	2	31	-	31
NI59	2	32	34	32
C14	1	33	-	33
NP239	3	34	-	1
AC225	3	35	-	14
RA225	3	36	36	14
RA223	3	37	-	15
SBI26	2	38	-	25
Y90	2	39	31	30
CM244	3	40	1	40
CM242	3	41	2	41
PU241	3	42	5	42
PM147	2	43	18	43
CE144	2	44	19	44
CS134	2	45	21	22
RUI06	2	46	24	46
NB95	2	47	26	48
ZR95	2	48	28	48
Y91	2	49	30	49
SR89	2	50	33	50

TABLE 2-2
SOURCES OF DATA FOR NEW NUCLIDE PARAMETERS
IN BIODOSE

PARAMETER	REFERENCE
Ingestion dose factors (one year chronic intake, 50 yr dose), $DF(r,1,j)^*$	10
Exposure dose factors, $DF(r,2,j)$	11
Immersion dose factors, $DF(r,3,j)$	11
Salt water accumulation factor	12
Fresh water accumulation factors	13
Soil retention factor	13
Plant concentration factor	13
Transfer coefficients for animal products	13
Atomic half life	10
Effective half life in organs	10
River sediment concentration factor	14
Estuary sediment concentration factor	14
Fraction of nuclide remaining in river or well water after treatment	14

*r is nuclide code number, j is organ code number.

where

$$\lambda(r,j) = (365 \text{ days}) (0.693)/BHL(r,j)$$

$BHL(r,j)$ = effective half-life in days of nuclide r
in organ j

t_1 = one year

t_{50} = 50 years

The above equation is based on information in Ref. 10.

$$DAF(r,i,j) = 50, \quad i = 2,3$$

The whole-body-equivalent dose factor is computed as a weighted sum of the organ dose factors as follows:

$$DF50(r,i,j) = \sum_{j=2}^9 W(j) DF50(r,i,j)$$

where

$$W(j) = (0, 0.4514, 0.1577, 0.0343, 0.0343, 0.0137, \\ 0.223, 0.086, 0), \quad j = 1 \text{ to } 9$$

The weighting factors (W) are from Ref. 15.

The doses from some short-lived daughters are added to those of their parents in BIDOSE if WASTE output for each of the first 33 nuclides in Table 2-1 is multiplied separately by the BIDOSE output, that is, if solubility limits or re-concentration effects are being taken into account in WASTE (see Ref. 9 for information on WASTE). These short-lived daughters are given in Table 2-3.

The nuclide-specific parameters for all 50 nuclides are listed in Appendix A. Noted there are parameters for some daughters which have been assigned the same values as their parents in accordance with some of the recommendations outlined in the memo "Proposed Treatment of Decay Chains in BIDOSE" by Norm Bonner of July 10, 1979. More specifically, nuclides Np^{239} , Ac^{225} , Sb^{126} , and Y^{90} have the same parameters as their parents (except, of course, for half-lives and dose factors).

TABLE 2-3
SHORT-LIVED DAUGHTERS TO BE
INCLUDED IN B1ODOSE

(POTENTIAL HAZARDS OF THESE NUCLIDES ARE
TO BE INCLUDED IN PARENT'S)

NAME	R_VALUE	ACCOMPANYING PARENT	HALF-LIFE (DAYS)
NP239	34	AM243	2.35
AC225	35	TH229	10.0
RA225	36	TH229	14.8
RA223	37	AC227	11.4
SB126	38	SN126	12.4
Y90	39	SR90	2.67

Pb²¹⁰ and Po²¹⁰ have the same soil retention factors and sediment concentration factors as Ra²²⁶. Ra²²⁸ has the same soil and sediment factors as Th²³². Ra²²⁵ has the same soil and sediment factors as Th²²⁹. Ac²²⁷ and Ra²²³ have the same soil and sediment factors as Pa²³¹.

APPENDIX A

Included in this appendix is a computer-generated listing of all the nuclide-specific parameters used in the BLODOSE program for the analysis of bedded salt repositories. Certain of the parameters have notation symbols appended, with the following meanings:

- ▲ - parameter value is identical to that of the parent
- * - in the absence of literature data, the sediment concentration factor is set equal to the inverse of the soil retention factor

***** BIDDGE INPUT DATA SUMMARY PAGE 10 *****

AM243 PARAMETERS (I = 1)

DF50(1,COLUMN,ROW)

DOSE COMMITMENT FACTORS FOR CHRONIC EXPOSURE OVER 50 YEARS

	INGESTION MREM/PC1/YR	EXPOSURE MREM/HR/YR PER PC1/M**2	IMMERSION MREM/HR/YR PER PC1/L
BODY EQUIV.	2.27957E-03	6.50000E-08	1.55000E-05
BODY	1.45081E-03	6.50000E-08	1.55000E-05
GI-LLI	4.86115E-03	6.50000E-08	1.55000E-05
THYROID	0.0	6.50000E-08	1.55000E-05
BONE	2.09082E-02	6.50000E-08	1.55000E-05
LIVER	1.02861E-02	6.50000E-08	1.55000E-05
LUNG	0.0	6.50000E-08	1.55000E-05
KIDNEY	0.0	6.50000E-08	1.55000E-05
SKIN	0.0	7.49999E-08	2.30000E-05

VALUE	MEMONIC
2.50000E+01	B(1,1,1)
1.00000E+03	B(1,1,2)
1.00000E+03	B(1,1,3)
2.50000E+01	B(1,2,1)
1.00000E+03	B(1,2,2)
1.00000E+03	B(1,2,3)

1.00000E-04	FKT(1)
2.50000E-04	BV(1)

1.00000E-04	SA(1,1)
5.00000E-06	SA(1,2)
5.00000E-03	SA(1,3)
1.00000E-02	SA(1,4)
4.00000E-03	SA(1,5)

8.00000E+03	TR(1)
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1.99000E+04	BHL(1,1)
1.00000E+01	BHL(1,2)
1.00000E+01	BHL(1,3)
7.12000E+04	BHL(1,4)
3.48000E+03	BHL(1,5)
1.00000E+01	BHL(1,6)
2.68000E+04	BHL(1,7)

3	NCAT(1)
8.40000E+04	FKS(1)
1.00000E+05	FKSE(1)
1.00000E+00	TREAT(1,1)
1.00000E+00	TREAT(1,2)

DESCRIPTION
SALT WATER ACCUMULATION FACTORS (PC1/KG BIOTA PER PC1/L OF WATER)

FISH
CRUSTACEA
MOLLUSKS

FRESH WATER ACCUMULATION FACTORS (PC1/KG BIOTA PER PC1/L OF WATER)

FISH
CRUSTACEA
MOLLUSKS

SOIL RETENTION FACTOR (INVERSE OF RETARDATION FACTOR)
PLANT CONCENTRATION FACTOR IN KG(PLANT WET WEIGHT)/KG(DRY SOIL)

TRANSFER COEFFICIENTS FOR ANIMAL PRODUCTS

EGGS IN DAYS/EGG
MILK IN DAYS/LITER
BEEF IN DAYS/KG
PORK IN DAYS/KG
POULTRY IN DAYS/KG

ATOMIC HALF LIFE IN YEARS

EFFECTIVE HALF LIFE IN SEVEN ORGANS IN DAYS

BODY
GI-LLI
THYROID
BONE
LIVER
LUNG
KIDNEY

ACTINIDES CATEGORY NUMBER
RIVER SEDIMENT CONCENTRATION FACTOR
ESTUARY SEDIMENT CONCENTRATION FACTOR
FRACTION OF NUCLIDE REMAINING IN RIVER WATER AFTER TREATMENT
FRACTION OF NUCLIDE REMAINING IN WELL WATER AFTER TREATMENT

***** BIDOSE INPUT DATA SUMMARY PAGE 12 *****

AM241 PARAMETERS (I = 2)

OF50(I,COLUMN,ROW) DOSE COMMITMENT FACTORS FOR CHRONIC EXPOSURE OVER 50 YEARS

	INGESTION MREM/PC1/YR	EXPOSURE MREM/HR/YR PER PC1/M**2	IMMERISION MREM/HR/YR PER PC1/L
BODY EQUIV.	3.04495E-03	9.00000E-09	1.95000E-06
BODY	1.47187E-03	9.00000E-09	1.95000E-06
GI-LLI	3.70706E-03	9.00000E-09	1.95000E-06
THYROID	0.0	9.00000E-09	1.95000E-06
BONE	2.11417E-02	9.00000E-09	1.95000E-06
LIVER	1.05146E-02	9.00000E-09	1.95000E-06
LUNG	0.0	9.00000E-09	1.95000E-06
KIDNEY	1.07759E-02	9.00000E-09	1.95000E-06
SKIN	0.0	1.30000E-08	3.05000E-06

VALUE	MNEMONIC	DESCRIPTION
2.50000E+01	B(1,1,1)	SALT WATER ACCUMULATION FACTORS (PC1/KG BIOTA PER PC1/L OF WATER)
1.00000E+03	B(1,1,2)	FISH
1.00000E+03	B(1,1,3)	CRUSTACEA
		MOLLUSKS
2.50000E+01	B(1,2,1)	FRESH WATER ACCUMULATION FACTORS (PC1/KG BIOTA PER PC1/L OF WATER)
1.00000E+03	B(1,2,2)	FISH
1.00000E+03	B(1,2,3)	CRUSTACEA
		MOLLUSKS
1.00000E-04	FKT(1)	SOIL RETENTION FACTOR (INVERSE OF RETARDATION FACTOR)
2.50000E-04	BV(1)	PLANT CONCENTRATION FACTOR IN KG(PLANT WET WEIGHT)/KG(DRY SOIL)
1.00000E-04	SA(1,1)	TRANSFER COEFFICIENTS FOR ANIMAL PRODUCTS
5.00000E-06	SA(1,2)	EGGS IN DAYS/EGG
5.00000E-03	SA(1,3)	MILK IN DAYS/LITER
1.00000E-02	SA(1,4)	BEEF IN DAYS/KG
4.00000E-03	SA(1,5)	PORK IN DAYS/KG
		POULTRY IN DAYS/KG
4.60000E+02	TR(1)	ATOMIC HALF LIFE IN YEARS
1.79000E+04	BHL(1,1)	EFFECTIVE HALF LIFE IN SEVEN ORGANS IN DAYS
1.00000E+01	BHL(1,2)	BODY
1.00000E+01	BHL(1,3)	GI-LLI
5.08000E+04	BHL(1,4)	THYROID
3.41000E+03	BHL(1,5)	BONE
1.00000E+01	BHL(1,6)	LIVER
2.32000E+04	BHL(1,7)	LUNG
		KIDNEY
8.40000E+04	NCAT(1)	ACTINIDES CATEGORY NUMBER
1.00000E+05	FKS(1)	RIVER SEDIMENT CONCENTRATION FACTOR
1.00000E+00	FKSE(1)	ESTUARY SEDIMENT CONCENTRATION FACTOR
1.00000E+00	TREAT(1,1)	FRACTION OF NUCLIDE REMAINING IN RIVER WATER AFTER TREATMENT
1.00000E+00	TREAT(1,2)	FRACTION OF NUCLIDE REMAINING IN WELL WATER AFTER TREATMENT

***** BIODOSE INPUT DATA SUMMARY PAGE 14 *****

PU240 PARAMETERS (I = 3)

DFS0(I,COLUMN,ROW) DOSE COMMITMENT FACTORS FOR CHRONIC EXPOSURE OVER 50 YEARS

	INGESTION MREM/PCI/YR	EXPOSURE MREM/HR/YR PER PCI/M**2	IMMERSION MREM/HR/YR PER PCI/L
BODY EQUIV.	1.64345E-03	6.50000E-11	7.00000E-09
BODY	4.88004E-04	6.50000E-11	7.00000E-09
GI-LLI	3.38731E-03	6.50000E-11	7.00000E-09
THYROID	0.0	6.50000E-11	7.00000E-09
BONE	1.94846E-02	6.50000E-11	7.00000E-09
LIVER	2.81192E-03	6.50000E-11	7.00000E-09
LUNG	0.0	6.50000E-11	7.00000E-09
KIDNEY	2.11790E-03	6.50000E-11	7.00000E-09
SKIN	0.0	9.00000E-10	2.00000E-07

VALUE	MNEMONIC	DESCRIPTION
3.00000E+00	B(I,1,1)	SALT WATER ACCUMULATION FACTORS (PCI/KG BIOTA PER PCI/L OF WATER)
2.00000E+02	B(I,1,2)	FISH
2.00000E+02	B(I,1,3)	CRUSTACEA
		MOLLUSKS
3.50000E+00	B(I,2,1)	FRESH WATER ACCUMULATION FACTORS (PCI/KG BIOTA PER PCI/L OF WATER)
1.00000E+02	B(I,2,2)	FISH
1.00000E+02	B(I,2,3)	CRUSTACEA
		MOLLUSKS
1.00000E-04	FKT(I)	SOIL RETENTION FACTOR (INVERSE OF RETARDATION FACTOR)
2.50000E-04	BV(I)	PLANT CONCENTRATION FACTOR IN KG(PLANT WET WEIGHT)/KG(DRY SOIL)
		TRANSFER COEFFICIENTS FOR ANIMAL PRODUCTS
1.00000E-04	SA(I,1)	EGGS IN DAYS/EGG
1.50000E-06	SA(I,2)	MILK IN DAYS/LITER
5.00000E-03	SA(I,3)	BEEF IN DAYS/KG
1.00000E-02	SA(I,4)	PORK IN DAYS/KG
4.00000E-03	SA(I,5)	POULTRY IN DAYS/KG
6.60000E+03	TR(I)	ATOMIC HALF LIFE IN YEARS
		EFFECTIVE HALF LIFE IN SEVEN ORGANS IN DAYS
6.33000E+04	BHL(I,1)	BODY
1.00000E+01	BHL(I,2)	GI-LLI
1.00000E+01	BHL(I,3)	THYROID
7.08000E+04	BHL(I,4)	BONE
2.96000E+04	BHL(I,5)	LIVER
1.00000E+01	BHL(I,6)	LUNG
3.16000E+04	BHL(I,7)	KIDNEY
		ACTINIDES CATEGORY NUMBER
3.80000E+05	NCAT(I)	RIVER SEDIMENT CONCENTRATION FACTOR
2.10000E+05	PKS(I)	ESTUARY SEDIMENT CONCENTRATION FACTOR
1.00000E+00	FKSE(I)	FRACTION OF NUCLIDE REMAINING IN RIVER WATER AFTER TREATMENT
1.00000E+00	TREAT(I,1)	FRACTION OF NUCLIDE REMAINING IN WELL WATER AFTER TREATMENT
	TREAT(I,2)	

PU239 PARAMETERS (I = 4)

DF50(I,COLUMN,ROW) DOSE COMMITMENT FACTORS FOR CHRONIC EXPOSURE OVER 50 YEARS

	INGESTION MREM/PC1/YR	EXPOSURE MREM/HR/YR PER PC1/M**2	IMMERSION MREM/HR/YR PER PC1/L
BDDY EQUIV.	1.63277E-03	3.95000E-11	6.00000E-09
BDDY	4.83874E-04	3.95000E-11	6.00000E-09
GI-LLI	3.32736E-03	3.95000E-11	6.00000E-09
THYROID	0.0	3.95000E-11	6.00000E-09
BONE	1.95087E-02	3.95000E-11	6.00000E-09
LIVER	2.78267E-03	3.95000E-11	6.00000E-09
LUNG	0.0	3.95000E-11	6.00000E-09
KIDNEY	2.12031E-03	3.95000E-11	6.00000E-09
SKIN	0.0	3.85000E-10	8.50000E-08

VALUE	MEMONIC	DESCRIPTION
3.00000E+00	B(1,1,1)	SALT WATER ACCUMULATION FACTORS (PC1/KG BIOTA PER PC1/L OF WATER)
2.00000E+02	B(1,1,2)	FISH
2.00000E+02	B(1,1,3)	CRUSTACEA
3.50000E+00	B(1,2,1)	MOLLUSKS
1.00000E+02	B(1,2,2)	FRESH WATER ACCUMULATION FACTORS (PC1/KG BIOTA PER PC1/L OF WATER)
1.00000E+02	B(1,2,3)	FISH
		CRUSTACEA
		MOLLUSKS

1.00000E-04	FKT(1)	SOIL RETENTION FACTOR (INVERSE OF RETARDATION FACTOR)
2.50000E-04	BV(1)	PLANT CONCENTRATION FACTOR IN KG(PLANT WET WEIGHT)/KG(DRY SOIL)

		TRANSFER COEFFICIENTS FOR ANIMAL PRODUCTS
1.00000E-04	SA(1,1)	EGGS IN DAYS/EGG
1.50000E-06	SA(1,2)	MILK IN DAYS/LITER
5.00000E-03	SA(1,3)	BEEF IN DAYS/KG
1.00000E-02	SA(1,4)	PORK IN DAYS/KG
4.00000E-03	SA(1,5)	POULTRY IN DAYS/KG

2.40000E+04	TR(1)	ATOMIC HALF LIFE IN YEARS
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		EFFECTIVE HALF LIFE IN SEVEN ORGANS IN DAYS
6.45000E+04	BHL(1,1)	BODY
1.00000E+01	BHL(1,2)	GI-LLI
1.00000E+01	BHL(1,3)	THYROID
7.24000E+04	BHL(1,4)	BONE
2.99000E+04	BHL(1,5)	LIVER
1.00000E+01	BHL(1,6)	LUNG
3.19000E+04	BHL(1,7)	KIDNEY

3	NCAT(1)	ACTINIDES CATEGORY NUMBER
3.80000E+05	FKS(1)	RIVER SEDIMENT CONCENTRATION FACTOR
2.10000E+05	FKSE(1)	ESTUARY SEDIMENT CONCENTRATION FACTOR
1.00000E+00	TREAT(1,1)	FRACTION OF NUCLIDE REMAINING IN RIVER WATER AFTER TREATMENT
1.00000E+00	TREAT(1,2)	FRACTION OF NUCLIDE REMAINING IN WELL WATER AFTER TREATMENT

***** BIODOSE INPUT DATA SUMMARY PAGE 18 *****

PU238 PARAMETERS (I = 5)

OF50(I,COLUMN,ROW)

DOSE COMMITMENT FACTORS FOR CHRONIC EXPOSURE OVER 50 YEARS

	INGESTION MREM/PC1/YR	EXPOSURE MREM/HR/YR PER PC1/M**2	IMMERSION MREM/HR/YR PER PC1/L
BODY EQUIV.	1.62186E-03	6.50000E-11	7.50000E-09
BODY	4.56853E-04	6.50000E-11	7.50000E-09
GI-LLI	3.64711E-03	6.50000E-11	7.50000E-09
THYROID	0.0	6.50000E-11	7.50000E-09
BONE	1.84321E-02	6.50000E-11	7.50000E-09
LIVER	2.63100E-03	6.50000E-11	7.50000E-09
LUNG	0.0	6.50000E-11	7.50000E-09
KIDNEY	2.00251E-03	6.50000E-11	7.50000E-09
SKIN	0.0	9.00000E-10	2.00000E-07

VA_U E	MNEMONIC	DESCRIPTION
3.00000E+00	B(1,1,1)	SALT WATER ACCUMULATION FACTORS (PC1/KG BIOTA PER PC1/L OF WATER)
2.00000E+02	B(1,1,2)	FISH
2.00000E+02	B(1,1,3)	CRUSTACEA
		MOLLUSKS
3.50000E+00	B(1,2,1)	FRESH WATER ACCUMULATION FACTORS (PC1/KG BIOTA PER PC1/L OF WATER)
1.00000E+02	B(1,2,2)	FISH
1.00000E+02	B(1,2,3)	CRUSTACEA
		MOLLUSKS
1.00000E-04	FKT(1)	SOIL RETENTION FACTOR (INVERSE OF RETARDATION FACTOR)
2.50000E-04	BV(1)	PLANT CONCENTRATION FACTOR IN KG(PLANT WET WEIGHT)/KG(DRY SOIL)
		TRANSFER COEFFICIENTS FOR ANIMAL PRODUCTS
1.00000E-04	SA(1,1)	EGGS IN DAYS/EGG
1.50000E-06	SA(1,2)	MILK IN DAYS/LITER
5.00000E-03	SA(1,3)	BEEF IN DAYS/KG
1.00000E-02	SA(1,4)	PORK IN DAYS/KG
4.00000E-03	SA(1,5)	POULTRY IN DAYS/KG
8.60000E+01	TR(1)	ATOMIC HALF LIFE IN YEARS
		EFFECTIVE HALF LIFE IN SEVEN ORGANS IN DAYS
2.12000E+04	BHL(1,1)	BODY
1.00000E+01	BHL(1,2)	GI-LLI
1.00000E+01	BHL(1,3)	THYROID
2.20000E+04	BHL(1,4)	BONE
1.53000E+04	BHL(1,5)	LIVER
1.00000E+01	BHL(1,6)	LUNG
1.58000E+04	BHL(1,7)	KIDNEY
3	NCAT(1)	ACTINIDES CATEGORY NUMBER
3.80000E+05	FKS(1)	RIVER SEDIMENT CONCENTRATION FACTOR
2.10000E+05	FKSE(1)	ESTUARY SEDIMENT CONCENTRATION FACTOR
1.00000E+00	TREAT(1,1)	FRACTION OF NUCLIDE REMAINING IN RIVER WATER AFTER TREATMENT
1.00000E+00	TREAT(1,2)	FRACTION OF NUCLIDE REMAINING IN WELL WATER AFTER TREATMENT

***** BIODOSE INPUT DATA SUMMARY PAGE 20 *****

NP237 PARAMETERS (1 = 6)

DF50(1,COLUMN,ROW)

DOSE COMMITMENT FACTORS FOR CHRONIC EXPOSURE OVER 50 YEARS

	INGESTION MREM/PCI/YR	EXPOSURE MREM/HR/YR PER PCI/M**2	IMMERSION MREM/HR/YR PER PCI/L
BODY EQUIV.	2.55319E-03	7.00000E-08	1.80000E-05
BODY	1.47874E-03	7.00000E-08	1.80000E-05
GI-LLI	3.96686E-03	7.00000E-08	1.80000E-05
THYROID	0.0	7.00000E-08	1.80000E-05
BONE	3.54864E-02	7.00000E-08	1.80000E-05
LIVER	3.13357E-03	7.00000E-08	1.80000E-05
LUNG	0.0	7.00000E-08	1.80000E-05
KIDNEY	0.0	7.00000E-08	1.80000E-05
SKIN	0.0	7.99999E-08	2.25000E-05

VA-UE	MNEMONIC	DESCRIPTION
1.00000E+01	B(1,1,1)	SALT WATER ACCUMULATION FACTORS (PCI/KG BIOTA PER PCI/L OF WATER)
1.00000E+01	B(1,1,2)	FISH
1.00000E+01	B(1,1,3)	CRUSTACEA
		MOLLUSKS
1.00000E+01	B(1,2,1)	FRESH WATER ACCUMULATION FACTORS (PCI/KG BIOTA PER PCI/L OF WATER)
4.00000E+02	B(1,2,2)	FISH
4.00000E+02	B(1,2,3)	CRUSTACEA
		MOLLUSKS
1.00000E-02	FKT(1)	SOIL RETENTION FACTOR (INVERSE OF RETARDATION FACTOR)
2.50000E-03	BV(1)	PLANT CONCENTRATION FACTOR IN KG(PLANT WET WEIGHT)/KG(DRY SOIL)
		TRANSFER COEFFICIENTS FOR ANIMAL PRODUCTS
1.00000E-04	SA(1,1)	EGGS IN DAYS/EGG
5.00000E-06	SA(1,2)	MILK IN DAYS/LITER
5.00000E-03	SA(1,3)	BEEF IN DAYS/KG
1.00000E-02	SA(1,4)	PORK IN DAYS/KG
4.00000E-03	SA(1,5)	POULTRY IN DAYS/KG
2.10000E+06	TR(1)	ATOMIC HALF LIFE IN YEARS
		EFFECTIVE HALF LIFE IN SEVEN ORGANS IN DAYS
3.90000E+04	BHL(1,1)	BODY
1.00000E+01	BHL(1,2)	GI-LLI
1.00000E+01	BHL(1,3)	THYROID
7.30000E+04	BHL(1,4)	BONE
5.40000E+04	BHL(1,5)	LIVER
1.00000E+01	BHL(1,6)	LUNG
6.40000E+04	BHL(1,7)	KIDNEY
3	NCAT(1)	ACTINIDES CATEGORY NUMBER
1.00000E+04	FKS(1)	RIVER SEDIMENT CONCENTRATION FACTOR
1.00000E+04	FKSE(1)	ESTUARY SEDIMENT CONCENTRATION FACTOR
1.00000E+00	TREAT(1,1)	FRACTION OF NUCLIDE REMAINING IN RIVER WATER AFTER TREATMENT
1.00000E+00	TREAT(1,2)	FRACTION OF NUCLIDE REMAINING IN WELL WATER AFTER TREATMENT

U238 PARAMETERS (I = 7)

DF50(I,COLUMN,ROW)

DOSE COMMITMENT FACTORS FOR CHRONIC EXPOSURE OVER 50 YEARS

	INGESTION MREM/PCI/YR	EXPOSURE MREM/HR/YR PER PCI/M**2	IMMERSION MREM/HR/YR PER PCI/L
BODY EQUIV.	3.48572E-03	1.77830E-08	3.71827E-06
BODY	2.25205E-03	1.76000E-08	3.68000E-06
GI-LLI	2.74782E-03	1.76000E-08	3.68000E-06
THYROID	0.0	1.76000E-08	3.68000E-06
BONE	3.74403E-02	1.76000E-08	3.68000E-06
LIVER	0.0	1.76000E-08	3.68000E-06
LUNG	0.0	1.76000E-08	3.68000E-06
KIDNEY	8.73962E-03	1.76000E-08	3.68000E-06
SKIN	0.0	3.16000E-08	4.66000E-05

VALUE	MNEMONIC	DESCRIPTION
1.00000E+01	B(1.1.1)	SALT WATER ACCUMULATION FACTORS (PCI/KG BIOTA PER PCI/L OF WATER)
1.00000E+01	B(1.1.2)	FISH
1.00000E+01	B(1.1.3)	CRUSTACEA
		MOLLUSKS
2.00000E+00	B(1.2.1)	FRESH WATER ACCUMULATION FACTORS (PCI/KG BIOTA PER PCI/L OF WATER)
6.00000E+01	B(1.2.2)	FISH
6.00000E+01	B(1.2.3)	CRUSTACEA
		MOLLUSKS
7.00000E-05	FKT(1)	SOIL RETENTION FACTOR (INVERSE OF RETARDATION FACTOR)
2.50000E-03	BV(1)	PLANT CONCENTRATION FACTOR IN KG(PLANT WET WEIGHT)/KG(DRY SOIL)
1.00000E-04	SA(1.1)	TRANSFER COEFFICIENTS FOR ANIMAL PRODUCTS
5.00000E-06	SA(1.2)	EGGS IN DAYS/EGG
5.00000E-03	SA(1.3)	MILK IN DAYS/LITER
1.00000E-02	SA(1.4)	BEEF IN DAYS/KG
4.00000E-03	SA(1.5)	PORK IN DAYS/KG
		POULTRY IN DAYS/KG
4.47000E+09	TR(1)	ATOMIC HALF LIFE IN YEARS
1.00000E+02	BHL(1.1)	EFFECTIVE HALF LIFE IN SEVEN ORGANS IN DAYS
1.00000E+01	BHL(1.2)	BODY
1.00000E+00	BHL(1.3)	GI-LLI
3.00000E+02	BHL(1.4)	THYROID
1.00000E+00	BHL(1.5)	BONE
1.00000E+00	BHL(1.6)	LIVER
1.00000E+00	BHL(1.7)	LUNG
1.50000E+01		KIDNEY
3	NCAT(1)	ACTINIDES CATEGORY NUMBER
1.00000E+04	FKS(1)	RIVER SEDIMENT CONCENTRATION FACTOR
1.00000E+04	FKSE(1)	ESTUARY SEDIMENT CONCENTRATION FACTOR
1.00000E+00	TREAT(1,1)	FRACTION OF NUCLIDE REMAINING IN RIVER WATER AFTER TREATMENT
1.00000E+00	TREAT(1,2)	FRACTION OF NUCLIDE REMAINING IN WELL WATER AFTER TREATMENT

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U235 PARAMETERS (1 = 8)

DF50(1,COLUMN,ROW)

	DOSE COMMITMENT FACTORS FOR CHRONIC EXPOSURE OVER 50 YEARS		
	INGESTION MREM/PC1/YR	EXPOSURE MREM/HR/YR PER PC1/M**2	IMMERSION MREM/HR/YR PER PC1/L
BODY EQUIV.	3.84783E-03	6.61811E-08	1.49539E-05
BODY	2.41079E-03	6.55000E-08	1.48000E-05
GI-LLI	3.90191E-03	6.55000E-08	1.48000E-05
THYROID	0.0	6.55000E-08	1.48000E-05
BONE	3.91000E-02	6.55000E-08	1.48000E-05
LIVER	0.0	6.55000E-08	1.48000E-05
LUNG	0.0	6.55000E-08	1.48000E-05
KIDNEY	9.33891E-03	6.55000E-08	1.48000E-05
SKIN	0.0	1.03000E-07	1.92500E-05

VALUE	MNEMONIC	DESCRIPTION
1.00000E+01	B(1,1,1)	SALT WATER ACCUMULATION FACTORS (PC1/KG BIOTA PER PC1/L OF WATER)
1.00000E+01	B(1,1,2)	FISH
1.00000E+01	B(1,1,3)	CRUSTACEA
		MOLLUSKS
2.00000E+00	B(1,2,1)	FRESH WATER ACCUMULATION FACTORS (PC1/KG BIOTA PER PC1/L OF WATER)
6.00000E+01	B(1,2,2)	FISH
6.00000E+01	B(1,2,3)	CRUSTACEA
		MOLLUSKS
7.00000E-05	FKT(1)	SOIL RETENTION FACTOR (INVERSE OF RETARDATION FACTOR)
2.50000E-03	BV(1)	PLANT CONCENTRATION FACTOR IN KG(PLANT WET WEIGHT)/KG(DRY SOIL)
1.00000E-04	SA(1,1)	TRANSFER COEFFICIENTS FOR ANIMAL PRODUCTS
5.00000E-06	SA(1,2)	EGGS IN DAYS/EGG
5.00000E-03	SA(1,3)	MILK IN DAYS/LITER
1.00000E-02	SA(1,4)	BEEF IN DAYS/KG
4.00000E-03	SA(1,5)	PORK IN DAYS/KG
		POULTRY IN DAYS/KG
7.04000E+08	TR(1)	ATOMIC HALF LIFE IN YEARS
1.00000E+02	BHL(1,1)	EFFECTIVE HALF LIFE IN SEVEN ORGANS IN DAYS
1.00000E+01	BHL(1,2)	BODY
1.00000E+00	BHL(1,3)	GI-LLI
3.00000E+02	BHL(1,4)	THYROID
1.00000E+00	BHL(1,5)	BONE
1.00000E+00	BHL(1,6)	LIVER
1.00000E+00	BHL(1,6)	LUNG
1.50000E+01	BHL(1,7)	KIDNEY
3	NCAT(1)	ACTINIDES CATEGORY NUMBER
1.00000E+04	FKS(1)	RIVER SEDIMENT CONCENTRATION FACTOR
1.00000E+04	FKSE(1)	ESTUARY SEDIMENT CONCENTRATION FACTOR
1.00000E+00	TREAT(1,1)	FRACTION OF NUCLIDE REMAINING IN RIVER WATER AFTER TREATMENT
1.00000E+00	TREAT(1,2)	FRACTION OF NUCLIDE REMAINING IN WELL WATER AFTER TREATMENT

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U234 PARAMETERS (I = 9)

DF50(1,COLUMN,ROW) DOSE COMMITMENT FACTORS FOR CHRONIC EXPOSURE OVER 50 YEARS

	INGESTION MREM/PCI/YR	EXPOSURE MREM/HR/YR PER PCI/M**2	IMMERSION MREM/HR/YR PER PCI/L
BODY EQUIV.	3.89581E-03	3.69806E-10	5.96136E-08
BODY	2.56456E-03	3.66000E-10	5.90000E-08
GI-LLI	3.06757E-03	3.66000E-10	5.90000E-08
THYROID	0.0	3.66000E-10	5.90000E-08
BDNE	4.08085E-02	3.66000E-10	5.90000E-08
LIVER	0.0	3.66000E-10	5.90000E-08
LUNG	0.0	3.66000E-10	5.90000E-08
KIDNEY	9.93820E-03	3.66000E-10	5.90000E-08
SKIN	0.0	2.54000E-08	6.20000E-07

VALUE	MNEMONIC	DESCRIPTION
1.00000E+01	B(1,1,1)	SALT WATER ACCUMULATION FACTORS (PCI/KG BIOTA PER PCI/L OF WATER)
1.00000E+01	B(1,1,2)	FISH
1.00000E+01	B(1,1,3)	CRUSTACEA
2.00000E+00	B(1,2,1)	MOLLUSKS
6.00000E+01	B(1,2,2)	FRESH WATER ACCUMULATION FACTORS (PCI/KG BIOTA PER PCI/L OF WATER)
6.00000E+01	B(1,2,3)	FISH
7.00000E-05	FKT(1)	CRUSTACEA
2.50000E-03	BV(1)	MOLLUSKS
1.00000E-04	SA(1,1)	SOIL RETENTION FACTOR (INVERSE OF RETARDATION FACTOR)
5.00000E-06	SA(1,2)	PLANT CONCENTRATION FACTOR IN KG(PLANT WET WEIGHT)/KG(DRY SOIL)
5.00000E-03	SA(1,3)	TRANSFER COEFFICIENTS FOR ANIMAL PRODUCTS
1.00000E-02	SA(1,4)	EGGS IN DAYS/EGG
4.00000E-03	SA(1,5)	MILK IN DAYS/LITER
2.44000E+05	TR(1)	BEEF IN DAYS/KG
		PORK IN DAYS/KG
		POULTRY IN DAYS/KG
		ATOMIC HALF LIFE IN YEARS
1.00000E+02	BHL(1,1)	EFFECTIVE HALF LIFE IN SEVEN ORGANS IN DAYS
1.00000E+01	BHL(1,2)	BODY
1.00000E+00	BHL(1,3)	GI-LLI
3.00000E+02	BHL(1,4)	THYROID
1.00000E+00	BHL(1,5)	BONE
1.00000E+00	BHL(1,6)	LIVER
1.50000E+01	BHL(1,7)	LUNG
		KIDNEY

	NCAT(1)	ACTINIDES CATEGORY NUMBER
3	FKS(1)	RIVER SEDIMENT CONCENTRATION FACTOR
1.00000E+04	FKSE(1)	ESTUARY SEDIMENT CONCENTRATION FACTOR
1.00000E+00	TREAT(1,1)	FRACTION OF NUCLIDE REMAINING IN RIVER WATER AFTER TREATMENT
1.00000E+00	TREAT(1,2)	FRACTION OF NUCLIDE REMAINING IN WELL WATER AFTER TREATMENT

U233 PARAMETERS (I = 10)

DP50(I,COLUMN,ROW)

	DOSE COMMITMENT FACTORS FOR CHRONIC EXPOSURE OVER 50 YEARS		
	INGESTION MREM/PC1/YR	EXPOSURE MREM/HR/YR PER PC1/M**2	IMMERSION MREM/HR/YR PER PC1/L
BODY EQUIV.	4.03490E-03	1.15000E-07	2.95000E-05
BODY	2.61957E-03	1.15000E-07	2.95000E-05
GI-LLI	3.13252E-03	1.15000E-07	2.95000E-05
THYROID	0.0	1.15000E-07	2.95000E-05
BONE	4.25887E-02	1.15000E-07	2.95000E-05
LIVER	0.0	1.15000E-07	2.95000E-05
LUNG	0.0	1.15000E-07	2.95000E-05
KIDNEY	1.04376E-02	1.15000E-07	2.95000E-05
SKIN	0.0	1.40000E-07	7.00000E-05

VA-UE	MNEMONIC	DESCRIPTION
1.00000E+01	B(1.1.1)	SALT WATER ACCUMULATION FACTORS (PC1/KG BIOTA PER PC1/L OF WATER)
1.00000E+01	B(1.1.2)	FISH
1.00000E+01	B(1.1.3)	CRUSTACEA
		MOLLUSKS
2.00000E+00	B(1.2.1)	FRESH WATER ACCUMULATION FACTORS (PC1/KG BIOTA PER PC1/L OF WATER)
6.00000E+01	B(1.2.2)	FISH
6.00000E+01	B(1.2.3)	CRUSTACEA
		MOLLUSKS

7.00000E-05	FKT(1)	SOIL RETENTION FACTOR (INVERSE OF RETARDATION FACTOR)
2.50000E-03	BV(1)	PLANT CONCENTRATION FACTOR IN KG(PLANT WET WEIGHT)/KG(DRY SOIL)

		TRANSFER COEFFICIENTS FOR ANIMAL PRODUCTS
1.00000E-04	SA(1.1)	EGGS IN DAYS/EGG
5.00000E-04	SA(1.2)	MILK IN DAYS/LITER
5.00000E-03	SA(1.3)	BEEF IN DAYS/KG
1.00000E-02	SA(1.4)	PORK IN DAYS/KG
4.00000E-03	SA(1.5)	POULTRY IN DAYS/KG

1.60000E+05	TR(1)	ATOMIC HALF LIFE IN YEARS
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		EFFECTIVE HALF LIFE IN SEVEN ORGANS IN DAYS
1.00000E+02	BHL(1.1)	BODY
1.00000E+01	BHL(1.2)	GI-LLI
1.00000E+01	BHL(1.3)	THYROID
3.00000E+02	BHL(1.4)	BONE
1.00000E+01	BHL(1.5)	LIVER
1.00000E+01	BHL(1.6)	LUNG
1.50000E+01	BHL(1.7)	KIDNEY

		ACTINIDES CATEGORY NUMBER
1.00000E+04	NCAT(1)	RIVER SEDIMENT CONCENTRATION FACTOR
1.00000E+04	FKS(1)	ESTUARY SEDIMENT CONCENTRATION FACTOR
1.00000E+00	FKSE(1)	FRACTION OF NUCLIDE REMAINING IN RIVER WATER AFTER TREATMENT
1.00000E+00	TREAT(1.1)	FRACTION OF NUCLIDE REMAINING IN WELL WATER AFTER TREATMENT
1.00000E+00	TREAT(1.2)	

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PA231 PARAMETERS (I = 11)

DF50(I,CJLU4N,ROW) DOSE COMMITMENT FACTORS FOR CHRONIC EXPOSURE OVER 50 YEARS

	INGESTION MREM/PCI/YR	EXPOSURE MREM/HR/YR PER PCI/M**2	IMMERSION MREM/HR/YR PER PCI/L
BODY EQUIV.	1.05592E-02	1.10000E-07	2.50000E-05
BODY	4.22993E-03	1.10000E-07	2.50000E-05
GI-LLI	3.13252E-02	1.10000E-07	2.50000E-05
THYROID	0.0	1.10000E-07	2.50000E-05
BONE	1.06545E-01	1.10000E-07	2.50000E-05
LIVER	4.03441E-03	1.10000E-07	2.50000E-05
LUNG	0.0	1.10000E-07	2.50000E-05
KIDNEY	0.0	1.10000E-07	2.50000E-05
SKIN	0.0	1.35000E-07	3.50000E-05

VALUE	MNEMONIC	DESCRIPTION
1.00000E+01	B(1.1,1)	SALT WATER ACCUMULATION FACTORS (PCI/KG BIOTA PER PCI/L OF WATER)
1.00000E+01	B(1.1,2)	FISH
1.00000E+01	B(1.1,3)	CRUSTACEA
		MOLLUSKS
1.10000E+01	B(1.2,1)	FRESH WATER ACCUMULATION FACTORS (PCI/KG BIOTA PER PCI/L OF WATER)
1.10000E+02	B(1.2,2)	FISH
1.10000E+02	B(1.2,3)	CRUSTACEA
		MOLLUSKS
6.00000E-05	FKT(1)	SOIL RETENTION FACTOR (INVERSE OF RETARDATION FACTOR)
2.50000E-03	BV(1)	PLANT CONCENTRATION FACTOR IN KG(PLANT WET WEIGHT)/KG(DRY SOIL)
1.00000E-04	SA(1,1)	TRANSFER COEFFICIENTS FOR ANIMAL PRODUCTS
5.00000E-06	SA(1,2)	EGGS IN DAYS/EGG
5.00000E-03	SA(1,3)	MILK IN DAYS/LITER
1.00000E-02	SA(1,4)	BEEF IN DAYS/KG
4.00000E-03	SA(1,5)	PORK IN DAYS/KG
		POULTRY IN DAYS/KG
3.30000E+04	TR(1)	ATOMIC HALF LIFE IN YEARS
4.09000E+04	BHL(1,1)	EFFECTIVE HALF LIFE IN SEVEN ORGANS IN DAYS
1.00000E+01	BHL(1,2)	BODY
1.00000E+01	BHL(1,3)	GI-LLI
7.26000E+04	BHL(1,4)	THYROID
5.77000E+04	BHL(1,5)	BONE
1.00000E+01	BHL(1,6)	LIVER
5.08000E+04	BHL(1,7)	LUNG
		KIDNEY
3	NCAT(1)	ACTINIDES CATEGORY NUMBER
1.00000E+04	FKS(1)	RIVER SEDIMENT CONCENTRATION FACTOR
1.00000E+04	FKSE(1)	ESTUARY SEDIMENT CONCENTRATION FACTOR
1.00000E+00	TREAT(1,1)	FRACTION OF NUCLIDE REMAINING IN RIVER WATER AFTER TREATMENT
1.00000E+00	TREAT(1,2)	FRACTION OF NUCLIDE REMAINING IN WELL WATER AFTER TREATMENT

TH232 PARAMETERS (I = 12)

DF50(1,COLUMN,ROW)

	DOSE COMMITMENT FACTORS FOR CHRONIC EXPOSURE OVER 50 YEARS		
	INGESTION	EXPOSURE	IMMERSION
	MREM/PC1/YR	MREM/HR/YR	MREM/HR/YR
		PER PC1/M**2	PER PC1/L
BODY EQUIV.	5.01869E-03	7.88112E-07	2.02080E-04
BODY	3.07500E-03	7.80000E-07	2.00000E-04
GI-LLI	2.55797E-03	7.80000E-07	2.00000E-04
THYROID	0.0	7.80000E-07	2.00000E-04
BONE	5.97043E-02	7.80000E-07	2.00000E-04
LIVER	2.61568E-03	7.80000E-07	2.00000E-04
LUNG	0.0	7.80000E-07	2.00000E-04
KIDNEY	1.32971E-02	7.80000E-07	2.00000E-04
SKIN	0.0	9.30000E-07	2.89500E-04

VA-UE	MNEMONIC	DESCRIPTION
1.00000E+04	B(1,1,1)	SALT WATER ACCUMULATION FACTORS (PCI/KG BIOTA PER PCI/L OF WATER)
2.00000E+03	B(1,1,2)	FISH
2.00000E+03	B(1,1,3)	CRUSTACEA
		MOLLUSKS
3.00000E+01	B(1,2,1)	FRESH WATER ACCUMULATION FACTORS (PCI/KG BIOTA PER PCI/L OF WATER)
5.00000E+02	B(1,2,2)	FISH
5.00000E+02	B(1,2,3)	CRUSTACEA
		MOLLUSKS
2.00000E-05	FKT(1)	SOIL RETENTION FACTOR (INVERSE OF RETARDATION FACTOR)
4.20000E-03	BV(1)	PLANT CONCENTRATION FACTOR IN KG(PLANT WET WEIGHT)/KG(DRY SOIL)
1.00000E-04	SA(1,1)	TRANSFER COEFFICIENTS FOR ANIMAL PRODUCTS
5.00000E-06	SA(1,2)	EGGS IN DAYS/EGG
5.00000E-03	SA(1,3)	MILK IN DAYS/LITER
1.00000E-02	SA(1,4)	BEEF IN DAYS/KG
4.00000E-03	SA(1,5)	PORK IN DAYS/KG
		POULTRY IN DAYS/KG
1.40000E+10	TR(1)	ATOMIC HALF LIFE IN YEARS
5.70000E+06	BHL(1,1)	EFFECTIVE HALF LIFE IN SEVEN ORGANS IN DAYS
1.00000E+01	BHL(1,2)	BODY
1.00000E+00	BHL(1,3)	GI-LLI
7.30000E+04	BHL(1,4)	THYROID
5.70000E+04	BHL(1,5)	BONE
1.00000E+00	BHL(1,6)	LIVER
2.20000E+04	BHL(1,7)	LUNG
		KIDNEY
3	NCAT(1)	ACTINIDES CATEGORY NUMBER
5.00000E+03	FKS(1)	RIVER SEDIMENT CONCENTRATION FACTOR
5.00000E+03	FKSE(1)	ESTUARY SEDIMENT CONCENTRATION FACTOR
1.00000E+00	TREAT(1,1)	FRACTION OF NUCLIDE REMAINING IN RIVER WATER AFTER TREATMENT
1.00000E+00	TREAT(1,2)	FRACTION OF NUCLIDE REMAINING IN WELL WATER AFTER TREATMENT

***** BIODOSE INPUT DATA SUMMARY PAGE 34 *****

TH230 PARAMETERS (I = 13)

DF50(1,COLUMN,ROW)

DOSE COMMITMENT FACTORS FOR CHRONIC EXPOSURE OVER 50 YEARS

INGESTION	EXPOSURE	IMMERSION
MREM/PCI/YR	MREM/HR/YR	MREM/HR/YR
	PER PCI/M**2	PER PCI/L
BODY EQUIV.	3.02344E-03	9.00000E-05
BDDY	1.49106E-03	9.00000E-05
GI-LLI	3.00762E-03	9.00000E-05
THYROID	0.0	9.00000E-05
BONE	5.34582E-02	9.00000E-05
LIVER	3.09862E-03	9.00000E-05
LUNG	0.0	9.00000E-05
KIDNEY	0.0	9.00000E-05
SKIN	0.0	3.75000E-07

VALUE	MNEMONIC
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1.00000E+04	B(I,1,1)
2.00000E+03	B(I,1,2)
2.00000E+03	B(I,1,3)

3.00000E+01	B(I,2,1)
5.00000E+02	B(I,2,2)
5.00000E+02	B(I,2,3)

2.00000E-05	FKT(I)
4.20000E-03	BV(I)

1.00000E-04	SA(1,1)
5.00000E-06	SA(1,2)
5.00000E-03	SA(1,3)
1.00000E-02	SA(1,4)
4.00000E-03	SA(1,5)

8.00000E+04	TR(I)
-------------	-------

5.69000E+04	BHL(1,1)
1.00000E+01	BHL(1,2)
1.00000E+01	BHL(1,3)
7.28000E+04	BHL(1,4)
5.69000E+04	BHL(1,5)
1.00000E+01	BHL(1,6)
2.20000E+04	BHL(1,7)

3	NCAT(I)
5.00000E+03	FKS(I)
5.00000E+03	FKSE(I)
1.00000E+00	TREAT(1,1)
1.00000E+00	TREAT(1,2)

DESCRIPTION
SALT WATER ACCUMULATION FACTORS (PCI/KG BIOTA PER PCI/L OF WATER)
FISH
CRUSTACEA
MOLLUSKS
FRESH WATER ACCUMULATION FACTORS (PCI/KG BIOTA PER PCI/L OF WATER)
FISH
CRUSTACEA
MOLLUSKS

SOIL RETENTION FACTOR (INVERSE OF RETARDATION FACTOR)
PLANT CONCENTRATION FACTOR IN KG(PLANT WET WEIGHT)/KG(DRY SOIL)

TRANSFER COEFFICIENTS FOR ANIMAL PRODUCTS
EGGS IN DAYS/EGG
MILK IN DAYS/LITER
BEEF IN DAYS/KG
PORK IN DAYS/KG
POULTRY IN DAYS/KG

ATOMIC HALF LIFE IN YEARS

EFFECTIVE HALF LIFE IN SEVEN ORGANS IN DAYS
BODY
GI-LLI
THYROID
BONE
LIVER
LUNG
KIDNEY

ACTINIDES CATEGORY NUMBER
RIVER SEDIMENT CONCENTRATION FACTOR
ESTUARY SEDIMENT CONCENTRATION FACTOR
FRACTION OF NUCLIDE REMAINING IN RIVER WATER AFTER TREATMENT
FRACTION OF NUCLIDE REMAINING IN WELL WATER AFTER TREATMENT

TH229 PARAMETERS (I = 14)

DF50(I,COLUMN,ROW)

DOSE COMMITMENT FACTORS FOR CHRONIC EXPOSURE OVER 50 YEARS

	INGESTION MREM/PCI/YR	EXPOSURE MREM/HR/YR PER PCI/M**2	IMMERSION MREM/HR/YR PER PCI/L
BODY EQUIV.	2.11556E-02	1.10000E-07	2.90000E-05
BODY	1.01557E-02	1.10000E-07	2.90000E-05
GI-LLI	2.55797E-02	1.10000E-07	2.90000E-05
THYROID	0.0	1.10000E-07	2.90000E-05
BONE	3.61436E-01	1.10000E-07	2.90000E-05
LIVER	1.02255E-02	1.10000E-07	2.90000E-05
LUNG	0.0	1.10000E-07	2.90000E-05
KIDNEY	0.0	1.10000E-07	2.90000E-05
SKIN	0.0	1.35000E-07	6.50000E-05

VALUE	MNEMONIC
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1.00000E+04	B(1,1,1)
2.00000E+03	B(1,1,2)
2.00000E+03	B(1,1,3)

3.00000E+01	B(1,2,1)
5.00000E+02	B(1,2,2)
5.00000E+02	B(1,2,3)

2.00000E-05	FKT(1)
4.20000E-03	BV(1)

1.00000E-04	SA(1,1)
5.00000E-06	SA(1,2)
5.00000E-03	SA(1,3)
1.00000E-02	SA(1,4)
4.00000E-03	SA(1,5)

7.30000E+03	TR(1)
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5.58000E+04	BHL(1,1)
1.00000E+01	BHL(1,2)
1.00000E+01	BHL(1,3)
7.11000E+04	BHL(1,4)
5.58000E+04	BHL(1,5)
1.00000E+01	BHL(1,6)
2.18000E+04	BHL(1,7)

3	NCAT(1)
5.00000E+03	FKS(1)
5.00000E+03	FKSE(1)
1.00000E+00	TREAT(1,1)
1.00000E+00	TREAT(1,2)

DESCRIPTION
SALT WATER ACCUMULATION FACTORS (PCI/KG BIOTA PER PCI/L OF WATER)

FISH
CRUSTACEA
MOLLUSKS

FRESH WATER ACCUMULATION FACTORS (PCI/KG BIOTA PER PCI/L OF WATER)

FISH
CRUSTACEA
MOLLUSKS

SOIL RETENTION FACTOR (INVERSE OF RETARDATION FACTOR)
PLANT CONCENTRATION FACTOR IN KG(PLANT WET WEIGHT)/KG(DRY SOIL)

TRANSFER COEFFICIENTS FOR ANIMAL PRODUCTS

EGGS IN DAYS/EGG
MILK IN DAYS/LITER
BEEF IN DAYS/KG
PORK IN DAYS/KG
POULTRY IN DAYS/KG

ATOMIC HALF LIFE IN YEARS

EFFECTIVE HALF LIFE IN SEVEN ORGANS IN DAYS

BODY
GI-LLI
THYROID
BONE
LIVER
LUNG
KIDNEY

ACTINIDES CATEGORY NUMBER
RIVER SEDIMENT CONCENTRATION FACTOR
ESTUARY SEDIMENT CONCENTRATION FACTOR
FRACTION OF NUCLIDE REMAINING IN RIVER WATER AFTER TREATMENT
FRACTION OF NUCLIDE REMAINING IN WELL WATER AFTER TREATMENT

AC227 PARAMETERS (I = 15)

DF50(I,COLUMN,ROW)

DOSE COMMITMENT FACTORS FOR CHRONIC EXPOSURE OVER 50 YEARS

	INGESTION MREM/PCI/YR	EXPOSURE MREM/HR/YR PER PCI/M**2	IMMERSION MREM/HR/YR PER PCI/L
BODY EQUIV.	4.77088E-03	2.07637E-07	4.27399E-05
BODY	3.69940E-03	2.05500E-07	4.23000E-05
GI-LLI	4.09176E-03	2.05500E-07	4.23000E-05
THYROID	0.0	2.05500E-07	4.23000E-05
BONE	6.00585E-02	2.05500E-07	4.23000E-05
LIVER	1.21465E-02	2.05500E-07	4.23000E-05
LUNG	0.0	2.05500E-07	4.23000E-05
KIDNEY	2.66623E-03	2.05500E-07	4.23000E-05
SKIN	0.0	2.36500E-07	9.44999E-05

VA-UE	MNEMONIC	DESCRIPTION
2.50000E+01	B(1,1,1)	SALT WATER ACCUMULATION FACTORS (PCI/KG BIOTA PER PCI/L OF WATER)
1.00000E+03	B(1,1,2)	FISH
1.00000E+03	B(1,1,3)	CRUSTACEA
		MOLLUSKS
2.50000E+01	B(1,2,1)	FRESH WATER ACCUMULATION FACTORS (PCI/KG BIOTA PER PCI/L OF WATER)
1.00000E+03	B(1,2,2)	FISH
1.00000E+03	B(1,2,3)	CRUSTACEA
		MOLLUSKS
6.00000E-05	A FKT(1)	SOIL RETENTION FACTOR (INVERSE OF RETARDATION FACTOR)
2.50000E-03	BV(1)	PLANT CONCENTRATION FACTOR IN KG(PLANT WET WEIGHT)/KG(DRY SOIL)
		TRANSFER COEFFICIENTS FOR ANIMAL PRODUCTS
1.00000E-04	SA(1,1)	EGGS IN DAYS/EGG
5.00000E-06	SA(1,2)	MILK IN DAYS/LITER
5.00000E-03	SA(1,3)	BEEF IN DAYS/KG
1.00000E-02	SA(1,4)	PORK IN DAYS/KG
4.00000E-03	SA(1,5)	POULTRY IN DAYS/KG
2.18000E+01	TR(1)	ATOMIC HALF LIFE IN YEARS
5.97000E+03	BHL(1,1)	EFFECTIVE HALF LIFE IN SEVEN ORGANS IN DAYS
1.00000E+01	BHL(1,2)	BODY
1.00000E+00	BHL(1,3)	GI-LLI
7.16600E+03	BHL(1,4)	THYROID
1.84300E+03	BHL(1,5)	BONE
1.00000E+00	BHL(1,6)	LIVER
5.97000E+03	BHL(1,7)	LUNG
		KIDNEY
3	NCAT(1)	ACTINIDES CATEGORY NUMBER
1.00000E+04	A FKS(1)	RIVER SEDIMENT CONCENTRATION FACTOR
1.00000E+04	A FKSE(1)	ESTUARY SEDIMENT CONCENTRATION FACTOR
1.00000E+00	TREAT(1,1)	FRACTION OF NUCLIDE REMAINING IN RIVER WATER AFTER TREATMENT
1.00000E+00	TREAT(1,2)	FRACTION OF NUCLIDE REMAINING IN WELL WATER AFTER TREATMENT

RA228 PARAMETERS (I = 16)

DF50(I,COLUMN,ROW)

DOSE COMMITMENT FACTORS FOR CHRONIC EXPOSURE OVER 50 YEARS

	INGESTION MREM/PCI/YR	EXPOSURE MREM/HR/YR PER PCI/M**2	IMMERSION MREM/HR/YR PER PCI/L
BDDY EQUIV.	2.36089E+00	7.88112E-07	2.02080E-04
BDDY	4.86492E+00	7.80000E-07	2.00000E-04
GI-LLI	2.81777E-03	7.80000E-07	2.00000E-04
THYROID	0.0	7.80000E-07	2.00000E-04
BONE	4.78263E+00	7.80000E-07	2.00000E-04
LIVER	1.55878E-04	7.80000E-07	2.00000E-04
LUNG	0.0	7.80000E-07	2.00000E-04
KIDNEY	4.41154E-03	7.80000E-07	2.00000E-04
SKIN	0.0	9.25000E-07	2.89500E-04

VALUE	MNEMONIC	DESCRIPTION
5.00000E+01	B(1,1,1)	SALT WATER ACCUMULATION FACTORS (PCI/KG BIOTA PER PCI/L OF WATER)
1.00000E+02	B(1,1,2)	FISH
1.00000E+02	B(1,1,3)	CRUSTACEA
		MOLLUSKS
5.00000E+01	B(1,2,1)	FRESH WATER ACCUMULATION FACTORS (PCI/KG BIOTA PER PCI/L OF WATER)
2.50000E+02	B(1,2,2)	FISH
2.50000E+02	B(1,2,3)	CRUSTACEA
		MOLLUSKS
2.00000E-05	FKT(1)	SOIL RETENTION FACTOR (INVERSE OF RETARDATION FACTOR)
3.10000E-04	BV(1)	PLANT CONCENTRATION FACTOR IN KG(PLANT WET WEIGHT)/KG(DRY SOIL)
9.99999E-07	SA(1,1)	TRANSFER COEFFICIENTS FOR ANIMAL PRODUCTS
8.00000E-03	SA(1,2)	EGGS IN DAYS/EGG
9.00000E-04	SA(1,3)	MILK IN DAYS/LITER
9.00000E-04	SA(1,4)	BEEF IN DAYS/KG
9.00000E-04	SA(1,5)	PORK IN DAYS/KG
		POULTRY IN DAYS/KG
5.75000E+00	TR(1)	ATOMIC HALF LIFE IN YEARS
1.66700E+03	BHL(1,1)	EFFECTIVE HALF LIFE IN SEVEN ORGANS IN DAYS
1.00000E+01	BHL(1,2)	BODY
1.00000E+00	BHL(1,3)	GI-LLI
1.86100E+03	BHL(1,4)	THYROID
9.90000E+00	BHL(1,5)	BONE
1.00000E+00	BHL(1,6)	LIVER
9.90000E+00	BHL(1,7)	LUNG
		KIDNEY
3	NCAT(1)	ACTINIDES CATEGORY NUMBER
5.00000E+03	FKS(1)	RIVER SEDIMENT CONCENTRATION FACTOR
5.00000E+03	FKSE(1)	ESTUARY SEDIMENT CONCENTRATION FACTOR
1.00000E+00	TREAT(1,1)	FRACTION OF NUCLIDE REMAINING IN RIVER WATER AFTER TREATMENT
1.00000E+00	TREAT(1,2)	FRACTION OF NUCLIDE REMAINING IN WELL WATER AFTER TREATMENT

***** BIDOSE INPUT DATA SUMMARY PAGE 42 *****

RA226 PARAMETERS (I = 17)

PF50(I,COLUMN,ROW)

DOSE COMMITMENT FACTORS FOR CHRONIC EXPOSURE OVER 50 YEARS

INGESTION MREM/PCI/YR	EXPOSURE MREM/HR/YR PER PCI/M**2	IMMERSION MREM/HR/YR PER PCI/L
BODY EQUIV. 3.17136E+00	3.20000E-07	9.00000E-05
BODY 6.14464E+00	3.20000E-07	9.00000E-05
GI-LLI 1.65868E-02	3.20000E-07	9.00000E-05
THYROID 0.0	3.20000E-07	9.00000E-05
BONE 1.15174E+01	3.20000E-07	9.00000E-05
LIVER 2.87272E-04	3.20000E-07	9.00000E-05
LUNG 0.0	3.20000E-07	9.00000E-05
KIDNEY 0.0	3.20000E-07	9.00000E-05
SKIN 0.0	3.70000E-07	1.55000E-04

VALUE	MNEMONIC	DESCRIPTION
5.00000E+01	B(1,1,1)	SALT WATER ACCUMULATION FACTORS (PCI/KG BIOTA PER PCI/L OF WATER)
1.00000E+02	B(1,1,2)	FISH
1.00000E+02	B(1,1,3)	CRUSTACEA
		MOLLUSKS
5.00000E+01	B(1,2,1)	FRESH WATER ACCUMULATION FACTORS (PCI/KG BIOTA PER PCI/L OF WATER)
2.50000E+02	B(1,2,2)	FISH
2.50000E+02	B(1,2,3)	CRUSTACEA
		MOLLUSKS
2.00000E-03	FKT(1)	SOIL RETENTION FACTOR (INVERSE OF RETARDATION FACTOR)
3.10000E-04	BV(1)	PLANT CONCENTRATION FACTOR IN KG(PLANT WET WEIGHT)/KG(DRY SOIL)
9.99999E-07	SA(1,1)	TRANSFER COEFFICIENTS FOR ANIMAL PRODUCTS
8.00000E-03	SA(1,2)	EGGS IN DAYS/EGG
9.00000E-04	SA(1,3)	MILK IN DAYS/LITER
9.00000E-04	SA(1,4)	BEEF IN DAYS/KG
9.00000E-04	SA(1,5)	PORK IN DAYS/KG
		POULTRY IN DAYS/KG
1.60000E+03	TR(1)	ATOMIC HALF LIFE IN YEARS
7.99000E+03	BHL(1,1)	EFFECTIVE HALF LIFE IN SEVEN ORGANS IN DAYS
1.00000E+01	BHL(1,2)	BODY
1.00000E+01	BHL(1,3)	GI-LLI
1.60000E+04	BHL(1,4)	THYROID
1.00000E+01	BHL(1,5)	BONE
1.00000E+01	BHL(1,6)	LIVER
1.00000E+01	BHL(1,7)	LUNG
		KIDNEY
3	NCAT(1)	ACTINIDES CATEGORY NUMBER
3.20000E+03	FKS(1)	RIVER SEDIMENT CONCENTRATION FACTOR
3.20000E+03	FKSE(1)	ESTUARY SEDIMENT CONCENTRATION FACTOR
1.00000E+00	TREAT(1,1)	FRACTION OF NUCLIDE REMAINING IN RIVER WATER AFTER TREATMENT
1.00000E+00	TREAT(1,2)	FRACTION OF NUCLIDE REMAINING IN WELL WATER AFTER TREATMENT

P0210 PARAMETERS (I = 18)

DF50(I,COLUMN,ROW)

DOSE COMMITMENT FACTORS FOR CHRONIC EXPOSURE OVER 50 YEARS

	INGESTION MREM/PCI/YR	EXPOSURE MREM/HR/YR PER PCI/M**2	IMMERSION MREM/HR/YR PER PCI/L
BDDY EQUIV.	3.57329E-03	2.70000E-12	7.50000E-10
BDDY	4.30173E-03	2.70000E-12	7.50000E-10
GI-LLI	3.17748E-03	2.70000E-12	7.50000E-10
THYROID	0.0	2.70000E-12	7.50000E-10
BONE	1.78710E-02	2.70000E-12	7.50000E-10
LIVER	3.77680E-02	2.70000E-12	7.50000E-10
LUNG	0.0	2.70000E-12	7.50000E-10
KIDNEY	0.0	2.70000E-12	7.50000E-10
SKIN	0.0	3.10000E-12	8.50000E-10

VALUE	MNEMONIC
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3.00000E+02	B(1.1.1)
5.00000E+03	B(1.1.2)
5.00000E+03	B(1.1.3)

5.00000E+02	B(1.2.1)
2.00000E+04	B(1.2.2)
2.00000E+04	B(1.2.3)

2.00000E-03	FKT(1)
1.00000E+00	BV(1)

9.00000E-04	SA(1.1)
1.50000E-03	SA(1.2)
9.00000E-04	SA(1.3)
9.00000E-04	SA(1.4)
9.00000E-04	SA(1.5)

3.80000E-01	TR(1)
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2.47000E+01	BHL(1.1)
1.00000E+01	BHL(1.2)
1.00000E+01	BHL(1.3)
2.05000E+01	BHL(1.4)
3.16000E+01	BHL(1.5)
1.00000E+01	BHL(1.6)
4.64000E+01	BHL(1.7)

3	NCAT(1)
3.20000E+03	FKS(1)
3.20000E+03	FKSE(1)
1.00000E+00	TREAT(1.1)
1.00000E+00	TREAT(1.2)

DESCRIPTION

SALT WATER ACCUMULATION FACTORS (PCI/KG BIOTA PER PCI/L OF WATER)

FISH
CRUSTACEA
MOLLUSKS

FRESH WATER ACCUMULATION FACTORS (PCI/KG BIOTA PER PCI/L OF WATER)

FISH
CRUSTACEA
MOLLUSKS

SOIL RETENTION FACTOR (INVERSE OF RETARDATION FACTOR)

PLANT CONCENTRATION FACTOR IN KG(PLANT WET WEIGHT)/KG(DRY SOIL)

TRANSFER COEFFICIENTS FOR ANIMAL PRODUCTS

EGGS IN DAYS/EGG
MILK IN DAYS/LITER
BEEF IN DAYS/KG
PORK IN DAYS/KG
POULTRY IN DAYS/KG

ATOMIC HALF LIFE IN YEARS

EFFECTIVE HALF LIFE IN SEVEN ORGANS IN DAYS

BODY
GI-LLI
THYROID
BONE
LIVER
LUNG
KIDNEY

ACTINIDES CATEGORY NUMBER

RIVER SEDIMENT CONCENTRATION FACTOR

ESTUARY SEDIMENT CONCENTRATION FACTOR

FRACTION OF NUCLIDE REMAINING IN RIVER WATER AFTER TREATMENT

FRACTION OF NUCLIDE REMAINING IN WELL WATER AFTER TREATMENT

***** BIDDOSE INPUT DATA SUMMARY PAGE 46 *****

PB210 PARAMETERS (I = 19)

DF50(I,COLUMN,ROW) DOSE COMMITMENT FACTORS FOR CHRONIC EXPOSURE OVER 50 YEARS

	INGESTION MREM/PCI/YR	EXPOSURE MREM/HR/YR PER PCI/M**2	IMMERSION MREM/HR/YR PER PCI/L
BODY EQUIV.	3.49609E-02	6.50000E-10	1.50000E-07
BODY	2.45260E-02	6.50000E-10	1.50000E-07
GI-LLI	2.70785E-03	6.50000E-10	1.50000E-07
THYROID	0.0	6.50000E-10	1.50000E-07
BONE	6.08512E-01	6.50000E-10	1.50000E-07
LIVER	1.89108E-01	6.50000E-10	1.50000E-07
LUNG	0.0	6.50000E-10	1.50000E-07
KIDNEY	0.0	6.50000E-10	1.50000E-07
SKIN	0.0	8.50000E-10	1.80000E-05

VALUE	MNEMONIC	DESCRIPTION
3.00000E+02	B(I,1,1)	SALT WATER ACCUMULATION FACTORS (PCI/KG BIOTA PER PCI/L OF WATER)
1.00000E+03	B(I,1,2)	FISH
1.00000E+03	B(I,1,3)	CRUSTACEA
		MOLLUSKS
1.00000E+02	B(I,2,1)	FRESH WATER ACCUMULATION FACTORS (PCI/KG BIOTA PER PCI/L OF WATER)
1.00000E+02	B(I,2,2)	FISH
1.00000E+02	B(I,2,3)	CRUSTACEA
		MOLLUSKS
2.00000E-03 A	FKT(I)	SOIL RETENTION FACTOR (INVERSE OF RETARDATION FACTOR)
6.80000E-02	BV(I)	PLANT CONCENTRATION FACTOR IN KG(PLANT WET WEIGHT)/KG(DRY SOIL)
		TRANSFER COEFFICIENTS FOR ANIMAL PRODUCTS
1.00000E-04	SA(I,1)	EGGS IN DAYS/EGG
3.10000E-04	SA(I,2)	MILK IN DAYS/LITER
9.00000E-04	SA(I,3)	BEEF IN DAYS/KG
9.00000E-04	SA(I,4)	PORK IN DAYS/KG
9.00000E-04	SA(I,5)	POULTRY IN DAYS/KG
2.00000E-01	TR(I)	ATOMIC HALF LIFE IN YEARS
		EFFECTIVE HALF LIFE IN SEVEN ORGANS IN DAYS
1.23000E+03	BHL(I,1)	BODY
1.00000E+01	BHL(I,2)	GI-LLI
1.00000E+01	BHL(I,3)	THYROID
2.47000E+03	BHL(I,4)	BONE
1.55000E+03	BHL(I,5)	LIVER
1.00000E+01	BHL(I,6)	LUNG
4.97000E+02	BHL(I,7)	KIDNEY
3	NCAT(I)	ACTINIDES CATEGORY NUMBER
3.20000E+03 A	FKS(I)	RIVER SEDIMENT CONCENTRATION FACTOR
3.20000E+03 A	FKSE(I)	ESTUARY SEDIMENT CONCENTRATION FACTOR
1.00000E+00	TREAT(I,1)	FRACTION OF NUCLIDE REMAINING IN RIVER WATER AFTER TREATMENT
1.00000E+00	TREAT(I,2)	FRACTION OF NUCLIDE REMAINING IN WELL WATER AFTER TREATMENT

EUI54 PARAMETERS (I = 20)

DFS0(I,COLUMN,ROW)

DOSE COMMITMENT FACTORS FOR CHRONIC EXPOSURE OVER 50 YEARS

	INGESTION MREM/PCI/YR	EXPOSURE MREM/HR/YR PER PCI/M**2	IMMERSION MREM/HR/YR PER PCI/L
BODY EQUIV.	6.99369E-04	3.90000E-07	1.05000E-04
BODY	3.75842E-06	3.90000E-07	1.05000E-04
GI-LLI	4.41150E-03	3.90000E-07	1.05000E-04
THYROID	0.0	3.90000E-07	1.05000E-04
BONE	5.53517E-05	3.90000E-07	1.05000E-04
LIVER	5.74798E-06	3.90000E-07	1.05000E-04
LUNG	0.0	3.90000E-07	1.05000E-04
KIDNEY	0.0	3.90000E-07	1.05000E-04
SKIN	0.0	4.50000E-07	1.35000E-04

VA_UJ	MNEMONIC	DESCRIPTION
2.50000E+01	B(1,1,1)	SALT WATER ACCUMULATION FACTORS (PCI/KG BIOTA PER PCI/L OF WATER)
1.00000E+03	B(1,1,2)	FISH
1.00000E+03	B(1,1,3)	CRUSTACEA
		MOLLUSKS
2.50000E+01	B(1,2,1)	FRESH WATER ACCUMULATION FACTORS (PCI/KG BIOTA PER PCI/L OF WATER)
1.00000E+03	B(1,2,2)	FISH
1.00000E+03	B(1,2,3)	CRUSTACEA
		MOLLUSKS
4.00000E-04	FKT(1)	SOIL RETENTION FACTOR (INVERSE OF RETARDATION FACTOR)
2.50000E-03	BV(1)	PLANT CONCENTRATION FACTOR IN KG(PLANT WET WEIGHT)/KG(DRY SOIL)
		TRANSFER COEFFICIENTS FOR ANIMAL PRODUCTS
4.00000E-05	SA(1,1)	EGGS IN DAYS/EGG
2.50000E-06	SA(1,2)	MILK IN DAYS/LITER
5.00000E-03	SA(1,3)	BEEF IN DAYS/KG
1.00000E-02	SA(1,4)	PORK IN DAYS/KG
4.00000E-03	SA(1,5)	POULTRY IN DAYS/KG
1.60000E+01	TR(1)	ATOMIC HALF LIFE IN YEARS
		EFFECTIVE HALF LIFE IN SEVEN ORGANS IN DAYS
5.73000E+02	BHL(1,1)	BODY
1.00000E+01	BHL(1,2)	GI-LLI
1.00000E+01	BHL(1,3)	THYROID
1.19000E+03	BHL(1,4)	BONE
1.24000E+02	BHL(1,5)	LIVER
1.00000E+01	BHL(1,6)	LUNG
1.18000E+03	BHL(1,7)	KIDNEY
2	NCAT(1)	FISSION PRODUCTS CATEGORY NUMBER
1.00000E+04	FKS(1)	RIVER SEDIMENT CONCENTRATION FACTOR
1.00000E+04	FKSE(1)	ESTUARY SEDIMENT CONCENTRATION FACTOR
1.00000E+00	TREAT(1,1)	FRACTION OF NUCLIDE REMAINING IN RIVER WATER AFTER TREATMENT
1.00000E+00	TREAT(1,2)	FRACTION OF NUCLIDE REMAINING IN WELL WATER AFTER TREATMENT

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SM151 PARAMETERS (I = 21)

DF50(I,COLUMN,ROW)

DOSE COMMITMENT FACTORS FOR CHRONIC EXPOSURE OVER 50 YEARS

	INGESTION MREM/PCI/YR	EXPOSURE MREM/HR/YR PER PCI/M**2	IMMERSION MREM/HR/YR PER PCI/L
BODY EQUIV.	4.15917E-05	2.42496E-09	1.31352E-08
BODY	1.35248E-07	2.40000E-09	1.30000E-08
GI-LLI	2.62292E-04	2.40000E-09	1.30000E-08
THYROID	0.0	2.40000E-09	1.30000E-08
BONE	3.05857E-06	2.40000E-09	1.30000E-08
LIVER	5.86249E-07	2.40000E-09	1.30000E-08
LUNG	0.0	2.40000E-09	1.30000E-08
KIDNEY	6.31159E-07	2.40000E-09	1.30000E-08
SKIN	0.0	1.05000E-08	9.50000E-08

VALUE	MNEMONIC	DESCRIPTION
2.50000E+01	B(1,1,1)	SALT WATER ACCUMULATION FACTORS (PCI/KG BIOTA PER PCI/L OF WATER)
1.00000E+03	B(1,1,2)	FISH
1.00000E+03	B(1,1,3)	CRUSTACEA
		MOLLUSKS
2.50000E+01	B(1,2,1)	FRESH WATER ACCUMULATION FACTORS (PCI/KG BIOTA PER PCI/L OF WATER)
1.00000E+03	B(1,2,2)	FISH
1.00000E+03	B(1,2,3)	CRUSTACEA
		MOLLUSKS
4.00000E-04	FKT(1)	SOIL RETENTION FACTOR (INVERSE OF RETARDATION FACTOR)
2.50000E-03	BV(1)	PLANT CONCENTRATION FACTOR IN KG(PLANT WET WEIGHT)/KG(DRY SOIL)
		TRANSFER COEFFICIENTS FOR ANIMAL PRODUCTS
4.00000E-05	SA(1,1)	EGGS IN DAYS/EGG
2.50000E-06	SA(1,2)	MILK IN DAYS/LITER
5.00000E-03	SA(1,3)	BEEF IN DAYS/KG
1.00000E-02	SA(1,4)	PORK IN DAYS/KG
4.00000E-03	SA(1,5)	POULTRY IN DAYS/KG
9.30000E+01	TR(1)	ATOMIC HALF LIFE IN YEARS
6.43600E+02	BHL(1,1)	EFFECTIVE HALF LIFE IN SEVEN ORGANS IN DAYS
1.00000E+01	BHL(1,2)	BODY
1.00000E+00	BHL(1,3)	GI-LLI
1.43700E+03	BHL(1,4)	THYROID
1.86000E+02	BHL(1,5)	BONE
1.00000E+00	BHL(1,6)	LIVER
6.43600E+02	BHL(1,7)	LUNG
		KIDNEY
2.50000E+03	NCAT(1)	FISSION PRODUCTS CATEGORY NUMBER
2.50000E+03	FKS(1)	RIVER SEDIMENT CONCENTRATION FACTOR
1.00000E+00	FKSE(1)	ESTUARY SEDIMENT CONCENTRATION FACTOR
1.00000E+00	TREAT(1,1)	FRACTION OF NUCLIDE REMAINING IN RIVER WATER AFTER TREATMENT
1.00000E+00	TREAT(1,2)	FRACTION OF NUCLIDE REMAINING IN WELL WATER AFTER TREATMENT

CS137 PARAMETERS (I = 22)

DF50(1,COLUMN,ROW)

DOSE COMMITMENT FACTORS FOR CHRONIC EXPOSURE OVER 50 YEARS

	INGESTION MREM/PCI/YR	EXPOSURE MREM/HR/YR PER PCI/M**2	IMMERSION MREM/HR/YR PER PCI/L
BODY EQUIV.	1.78148E-03	2.10000E-07	5.00000E-05
BODY	3.11329E-03	2.10000E-07	5.00000E-05
GI-LLI	1.02418E-04	2.10000E-07	5.00000E-05
THYROID	0.0	2.10000E-07	5.00000E-05
BONE	3.75004E-03	2.10000E-07	5.00000E-05
LIVER	5.25411E-03	2.10000E-07	5.00000E-05
LUNG	0.0	2.10000E-07	5.00000E-05
KIDNEY	1.85323E-03	2.10000E-07	5.00000E-05
SKIN	0.0	2.45000E-07	7.00000E-05

VA_U	MNEMONIC	DESCRIPTION
4.00000E+01	B(1,1,1)	SALT WATER ACCUMULATION FACTORS (PCI/KG BIOTA PER PCI/L OF WATER)
2.50000E+01	B(1,1,2)	FISH
2.50000E+01	B(1,1,3)	CRUSTACEA
		MOLLUSKS
2.00000E+03	B(1,2,1)	FRESH WATER ACCUMULATION FACTORS (PCI/KG BIOTA PER PCI/L OF WATER)
1.00000E+02	B(1,2,2)	FISH
1.00000E+02	B(1,2,3)	CRUSTACEA
		MOLLUSKS
1.00000E-03	FKT(1)	SOIL RETENTION FACTOR (INVERSE OF RETARDATION FACTOR)
3.00000E-03	BV(1)	PLANT CONCENTRATION FACTOR IN KG(PLANT WET WEIGHT)/KG(DRY SOIL)
		TRANSFER COEFFICIENTS FOR ANIMAL PRODUCTS
2.00000E-02	SA(1,1)	EGGS IN DAYS/EGG
7.00000E-03	SA(1,2)	MILK IN DAYS/LITER
3.00000E-02	SA(1,3)	BEEF IN DAYS/KG
4.00000E-02	SA(1,4)	PORK IN DAYS/KG
4.00000E-01	SA(1,5)	POULTRY IN DAYS/KG
3.00000E+01	TR(1)	ATOMIC HALF LIFE IN YEARS
		EFFECTIVE HALF LIFE IN SEVEN ORGANS IN DAYS
1.14000E+02	BHL(1,1)	BODY
1.00000E+01	BHL(1,2)	GI-LLI
1.00000E+01	BHL(1,3)	THYROID
1.38000E+02	BHL(1,4)	BONE
8.93000E+01	BHL(1,5)	LIVER
1.38000E+02	BHL(1,6)	LUNG
4.18000E+01	BHL(1,7)	KIDNEY
2	NCAT(1)	FISSION PRODUCTS CATEGORY NUMBER
4.80000E+03	FKS(1)	RIVER SEDIMENT CONCENTRATION FACTOR
1.00000E+03	FKSE(1)	ESTUARY SEDIMENT CONCENTRATION FACTOR
1.00000E+00	TREAT(1,1)	FRACTION OF NUCLIDE REMAINING IN RIVER WATER AFTER TREATMENT
1.00000E+00	TREAT(1,2)	FRACTION OF NUCLIDE REMAINING IN WELL WATER AFTER TREATMENT

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CS135 PARAMETERS (I = 23)

DF50(I,COLUMN,ROW)

DOSE COMMITMENT FACTORS FOR CHRONIC EXPOSURE OVER 50 YEARS

	INGESTION MREM/PCI/YR	EXPOSURE MREM/HR/YR PER PCI/M**2	IMMERSION MREM/HR/YR PER PCI/L
BODY EQUIV.	3.16164E-04	0.0	3.30000E-09
BODY	3.13999E-04	0.0	3.30000E-09
GI-LLI	1.85000E-05	0.0	3.30000E-09
THYROID	0.0	0.0	3.30000E-09
BONE	8.50000E-04	0.0	3.30000E-05
LIVER	7.87000E-04	0.0	3.30000E-09
LUNG	5.90000E-04	0.0	3.30000E-09
KIDNEY	0.0	0.0	3.30000E-09
SKIN	0.0	0.0	5.50000E-07

VALUE	MNEMONIC
4.00000E+01	B(1.1.1)
2.50000E+01	B(1.1.2)
2.50000E+01	B(1.1.3)
2.00000E+03	B(1.2.1)
1.00000E+02	B(1.2.2)
1.00000E+02	B(1.2.3)

1.00000E-03	FKT(1)
3.00000E-03	BV(1)

2.00000E-02	SA(1.1)
7.00000E-03	SA(1.2)
3.00000E-02	SA(1.3)
4.00000E-02	SA(1.4)
4.00000E-01	SA(1.5)

3.00000E+06	TR(1)
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1.15000E+02	BHL(1.1)
1.00000E+01	BHL(1.2)
1.00000E+01	BHL(1.3)
1.40000E+02	BHL(1.4)
9.00000E+01	BHL(1.5)
1.40000E+02	BHL(1.6)
1.00000E+01	BHL(1.7)

3.20000E+03	NCAT(1)
1.00000E+03	FKS(1)
1.00000E+00	FKSE(1)
1.00000E+00	TREAT(1.1)
1.00000E+00	TREAT(1.2)

DESCRIPTION

SALT WATER ACCUMULATION FACTORS (PCI/KG BIOTA PER PCI/L OF WATER)

FISH

CRUSTACEA

MOLLUSKS

FRESH WATER ACCUMULATION FACTORS (PCI/KG BIOTA PER PCI/L OF WATER)

FISH

CRUSTACEA

MOLLUSKS

SOIL RETENTION FACTOR (INVERSE OF RETARDATION FACTOR)

PLANT CONCENTRATION FACTOR IN KG(PLANT WET WEIGHT)/KG(DRY SOIL)

TRANSFER COEFFICIENTS FOR ANIMAL PRODUCTS

EGGS IN DAYS/EGG

MILK IN DAYS/LITER

BEEF IN DAYS/KG

PORK IN DAYS/KG

POULTRY IN DAYS/KG

ATOMIC HALF LIFE IN YEARS

EFFECTIVE HALF LIFE IN SEVEN ORGANS IN DAYS

BODY

GI-LLI

THYROID

BONE

LIVER

LUNG

KIDNEY

FISSION PRODUCTS CATEGORY NUMBER

RIVER SEDIMENT CONCENTRATION FACTOR

ESTUARY SEDIMENT CONCENTRATION FACTOR

FRACTION OF NUCLIDE REMAINING IN RIVER WATER AFTER TREATMENT

FRACTION OF NUCLIDE REMAINING IN WELL WATER AFTER TREATMENT

I129 PARAMETERS (I = 24)

DF50(I,COLUMN,ROW)

DOSE COMMITMENT FACTORS FOR CHRONIC EXPOSURE OVER 50 YEARS			
PF50(1.COLUMN.ROW)	INGESTION MREM/PCI/YR	EXPOSURE MREM/HR/YR PER PCI/M**2	IMMERSION MREM/HR/YR PER PCI/L
BODY EQUIV.	1.32097E-02	2.25000E-08	8.50000E-07
BODY	3.23943E-04	2.25000E-08	8.50000E-07
GI-LLI	1.53378E-05	2.25000E-08	8.50000E-07
THYROID	3.80000E-01	2.25000E-08	8.50000E-07
BONE	1.24362E-04	2.25000E-08	8.50000E-07
LIVER	8.79512E-05	2.25000E-08	8.50000E-07
LUNG	0.0	2.25000E-08	8.50000E-07
KIDNEY	2.51360E-04	2.25000E-08	8.50000E-07
SKIN	0.0	3.75000E-08	1.65000E-06
VALUE	MNEMONIC	DESCRIPTION	
1.00000E+01	B(1.1.1)	SALT WATER ACCUMULATION FACTORS (PCI/KG BIOTA PER PCI/L OF WATER)	
5.00000E+01	B(1.1.2)	FISH	
5.00000E+01	B(1.1.3)	CRUSTACEA	
		MOLLUSKS	
1.50000E+01	B(1.2.1)	FRESH WATER ACCUMULATION FACTORS (PCI/KG BIOTA PER PCI/L OF WATER)	
5.00000E+00	B(1.2.2)	FISH	
5.00000E+00	B(1.2.3)	CRUSTACEA	
		MOLLUSKS	
1.00000E+00	FKT(I)	SOIL RETENTION FACTOR (INVERSE OF RETARDATION FACTOR)	
2.00000E-02	BV(I)	PLANT CONCENTRATION FACTOR IN KG(PLANT WET WEIGHT)/KG(DRY SOIL)	
3.00000E-02	SA(1.1)	TRANSFER COEFFICIENTS FOR ANIMAL PRODUCTS	
1.00000E-02	SA(1.2)	EGGS IN DAYS/EGG	
2.00000E-02	SA(1.3)	MILK IN DAYS/LITER	
8.99998E-02	SA(1.4)	BEEF IN DAYS/KG	
4.00000E-03	SA(1.5)	PORK IN DAYS/KG	
		POULTRY IN DAYS/KG	
1.50000E+07	TR(I)	ATOMIC HALF LIFE IN YEARS	
1.00000E+02	BHL(1.1)	EFFECTIVE HALF LIFE IN SEVEN ORGANS IN DAYS	
1.00000E+01	BHL(1.2)	BODY	
1.00000E+02	BHL(1.3)	GI-LLI	
1.40000E+01	BHL(1.4)	THYROID	
7.00000E+00	BHL(1.5)	BONE	
1.00000E+01	BHL(1.6)	LIVER	
7.00000E+00	BHL(1.7)	LUNG	
		KIDNEY	
1	NCAT(I)	I129. TC99 CATEGORY NUMBER	
1.00000E+04	FKS(I)	RIVER SEDIMENT CONCENTRATION FACTOR	
1.00000E+04	FKSE(I)	ESTUARY SEDIMENT CONCENTRATION FACTOR	
1.00000E+00	TREAT(1.1)	FRACTION OF NUCLIDE REMAINING IN RIVER WATER AFTER TREATMENT	
1.00000E+00	TREAT(1.2)	FRACTION OF NUCLIDE REMAINING IN WELL WATER AFTER TREATMENT	

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SN126 PARAMETERS (I = 25)

DF50(I,COLUMN,ROW)

DOSE COMMITMENT FACTORS FOR CHRONIC EXPOSURE OVER 50 YEARS

	INGESTION MREM/PCI/YR	EXPOSURE MREM/HR/YR PER PCI/M**2	IMMERSION MREM/HR/YR PER PCI/L
BODY EQUIV.	3.91328E-04	4.50000E-07	9.00000E-07
BODY	1.19754E-04	4.50000E-07	9.00000E-07
GI-LLI	1.21403E-03	4.50000E-07	9.00000E-07
THYROID	2.44772E-05	4.50000E-07	9.00000E-07
BONE	4.19347E-03	4.50000E-07	9.00000E-07
LIVER	8.32943E-05	4.50000E-07	9.00000E-07
LUNG	0.0	4.50000E-07	9.00000E-07
KIDNEY	0.0	4.50000E-07	9.00000E-07
SKIN	0.0	5.00000E-07	3.00000E-06

VALUE	MNEMONIC	DESCRIPTION
3.00000E+03	B(1.1.1)	SALT WATER ACCUMULATION FACTORS (PCI/KG BIOTA PER PCI/L OF WATER)
1.00000E+03	B(1.1.2)	FISH
1.00000E+03	B(1.1.3)	CRUSTACEA
3.00000E+03	B(1.2.1)	FRESH WATER ACCUMULATION FACTORS (PCI/KG BIOTA PER PCI/L OF WATER)
1.00000E+03	B(1.2.2)	FISH
1.00000E+03	B(1.2.3)	CRUSTACEA
9.00000E-04	FKT(1)	SOIL RETENTION FACTOR (INVERSE OF RETARDATION FACTOR)
2.50000E-03	BV(1)	PLANT CONCENTRATION FACTOR IN KG(PLANT WET WEIGHT)/KG(DRY SOIL)
1.00000E-05	SA(1.1)	TRANSFER COEFFICIENTS FOR ANIMAL PRODUCTS
2.50000E-03	SA(1.2)	EGGS IN DAYS/EGG
2.50000E-03	SA(1.3)	MILK IN DAYS/LITER
5.00000E-03	SA(1.4)	BEEF IN DAYS/KG
2.00000E-03	SA(1.5)	PORK IN DAYS/KG
1.00000E+05	TR(1)	POULTRY IN DAYS/KG
3.50000E+01	BHL(1.1)	ATOMIC HALF LIFE IN YEARS
1.00000E+01	BHL(1.2)	EFFECTIVE HALF LIFE IN SEVEN ORGANS IN DAYS
7.00000E+01	BHL(1.3)	BODY
1.00000E+02	BHL(1.4)	GI-LLI
7.00000E+01	BHL(1.5)	THYROID
1.00000E+01	BHL(1.6)	BONE
1.00000E+01	BHL(1.7)	LIVER
1.00000E+01		LUNG
1.00000E+01		KIDNEY
2	NCAT(1)	FISSION PRODUCTS CATEGORY NUMBER
5.40000E+04	FKS(1)	RIVER SEDIMENT CONCENTRATION FACTOR
5.40000E+04	FKSE(1)	ESTUARY SEDIMENT CONCENTRATION FACTOR
1.00000E+00	TREAT(1.1)	FRACTION OF NUCLIDE REMAINING IN RIVER WATER AFTER TREATMENT
1.00000E+00	TREAT(1.2)	FRACTION OF NUCLIDE REMAINING IN WELL WATER AFTER TREATMENT

PD107 PARAMETERS (I = 26)

DF50(I,COLUMN,ROW)

DOSE COMMITMENT FACTORS FOR CHRONIC EXPOSURE OVER 50 YEARS

	INGESTION MREM/PCI/YR	EXPOSURE MREM/HR/YR PER PCI/M**2	IMMERSION MREM/HR/YR PER PCI/L
BODY EQUIV.	1.31527E-05	0.0	0.0
BODY	4.69814E-07	0.0	0.0
GI-LLI	4.55140E-05	0.0	0.0
THYROID	0.0	0.0	0.0
BONE	0.0	0.0	0.0
LIVER	7.33895E-06	0.0	0.0
LUNG	0.0	0.0	0.0
KIDNEY	6.58434E-05	0.0	0.0
SKIN	0.0	0.0	0.0

VALUE	MNEMONIC	DESCRIPTION
1.00000E+01	B(1,1,1)	SALT WATER ACCUMULATION FACTORS (PCI/KG BIOTA PER PCI/L OF WATER)
2.00000E+02	B(1,1,2)	FISH
2.00000E+02	B(1,1,3)	CRUSTACEA
		MOLLUSKS
1.00000E+01	B(1,2,1)	FRESH WATER ACCUMULATION FACTORS (PCI/KG BIOTA PER PCI/L OF WATER)
3.00000E+02	B(1,2,2)	FISH
3.00000E+02	B(1,2,3)	CRUSTACEA
		MOLLUSKS
9.00000E-04	FKT(1)	SOIL RETENTION FACTOR (INVERSE OF RETARDATION FACTOR)
5.00000E+00	BV(1)	PLANT CONCENTRATION FACTOR IN KG(PLANT WET WEIGHT)/KG(DRY SOIL)
9.00000E-04	SA(1,1)	TRANSFER COEFFICIENTS FOR ANIMAL PRODUCTS
5.00000E-03	SA(1,2)	EGGS IN DAYS/EGG
9.00000E-04	SA(1,3)	MILK IN DAYS/LITER
9.00000E-04	SA(1,4)	BEEF IN DAYS/KG
9.00000E-04	SA(1,5)	PORK IN DAYS/KG
		POULTRY IN DAYS/KG
6.50000E+06	TR(1)	ATOMIC HALF LIFE IN YEARS
5.00000E+00	BHL(1,1)	EFFECTIVE HALF LIFE IN SEVEN ORGANS IN DAYS
1.00000E+01	BHL(1,2)	BODY
1.00000E+00	BHL(1,3)	GI-LLI
1.00000E+00	BHL(1,4)	THYROID
1.90000E+01	BHL(1,5)	BONE
1.00000E+00	BHL(1,6)	LIVER
3.00000E+01	BHL(1,7)	LUNG
		KIDNEY
2	NCAT(1)	FISSION PRODUCTS CATEGORY NUMBER
1.10000E+03 ★	FKS(1)	RIVER SEDIMENT CONCENTRATION FACTOR
1.10000E+03 ★	FKSE(1)	ESTUARY SEDIMENT CONCENTRATION FACTOR
1.00000E+00	TREAT(1,1)	FRACTION OF NUCLIDE REMAINING IN RIVER WATER AFTER TREATMENT
1.00000E+00	TREAT(1,2)	FRACTION OF NUCLIDE REMAINING IN WELL WATER AFTER TREATMENT

***** BIODDOSE INPUT DATA SUMMARY PAGE 62 *****

TC99 PARAMETERS (1 = 27)

DF50(1,COLUMN,ROW)

DDSE COMMITMENT FACTORS FOR CHRONIC EXPOSURE OVER 50 YEARS

	INGESTION MREM/PCI/YR	EXPOSURE MREM/HR/YR PER PCI/M**2	IMMERSION MREM/HR/YR PER PCI/L
BODY EQUIV.	4.36925E-05	0.0	6.50000E-09
BODY	2.21982E-06	0.0	6.50000E-09
GI-LLI	2.68787E-04	0.0	6.50000E-09
THYROID	0.0	0.0	6.50000E-09
BONE	5.53925E-06	0.0	6.50000E-09
LIVER	8.23222E-06	0.0	6.50000E-09
LUNG	0.0	0.0	6.50000E-09
KIDNEY	0.0	0.0	6.50000E-09
SKIN	0.0	0.0	1.30000E-08

VALUE MNEMONIC

1.00000E+01 B(1,1,1)
5.00000E+01 B(1,1,2)
5.00000E+01 B(1,1,3)

1.50000E+01 B(1,2,1)
5.00000E+00 B(1,2,2)
5.00000E+00 B(1,2,3)

1.00000E+00 FKT(1)
2.50000E-01 BV(1)

9.00000E-04 SA(1,1)
1.20000E-02 SA(1,2)
9.00000E-04 SA(1,3)
9.00000E-04 SA(1,4)
9.00000E-04 SA(1,5)

2.10000E+05 TR(1)

1.00000E+00 BHL(1,1)
1.00000E+01 BHL(1,2)
1.00000E+01 BHL(1,3)
2.50000E+01 BHL(1,4)
3.00000E+01 BHL(1,5)
5.00000E+00 BHL(1,6)
2.00000E+01 BHL(1,7)

1 NCAT(1)
1.00000E+04 FKS(1)
1.00000E+04 FKSE(1)
1.00000E+00 TREAT(1,1)
1.00000E+00 TREAT(1,2)

DESCRIPTION

SALT WATER ACCUMULATION FACTORS (PCI/KG BIOTA PER PCI/L OF WATER)

FISH
CRUSTACEA
MOLLUSKS

FRESH WATER ACCUMULATION FACTORS (PCI/KG BIOTA PER PCI/L OF WATER)

FISH
CRUSTACEA
MOLLUSKS

SOIL RETENTION FACTOR (INVERSE OF RETARDATION FACTOR)

PLANT CONCENTRATION FACTOR IN KG(PLANT WET WEIGHT)/KG(DRY SOIL)

TRANSFER COEFFICIENTS FOR ANIMAL PRODUCTS

EGGS IN DAYS/EGG
MILK IN DAYS/LITER
BEEF IN DAYS/KG
PORK IN DAYS/KG
POULTRY IN DAYS/KG

ATOMIC HALF LIFE IN YEARS

EFFECTIVE HALF LIFE IN SEVEN ORGANS IN DAYS

BODY
GI-LLI
THYROID
BONE
LIVER
LUNG
KIDNEY

1129, TC99 CATEGORY NUMBER

RIVER SEDIMENT CONCENTRATION FACTOR

ESTUARY SEDIMENT CONCENTRATION FACTOR

FRACTION OF NUCLIDE REMAINING IN RIVER WATER AFTER TREATMENT

FRACTION OF NUCLIDE REMAINING IN WELL WATER AFTER TREATMENT

NB93M PARAMETERS (I = 28)

DF50(I,COLUMN,ROW)

	DDSE COMMITMENT FACTORS FOR CHRONIC EXPOSURE OVER 50 YEARS		
	INGESTION	EXPOSURE	IMMERSION
	MREM/PCI/YR	MREM/HR/YR	MREM/HR/YR
		PER PCI/M**2	PER PCI/L
BDDY EQUIV.	3.03464E-05	0.0	0.0
BDDY	9.90258E-08	0.0	0.0
GI-LLI	1.91848E-04	0.0	0.0
THYROID	0.0	0.0	0.0
BONE	1.21875E-06	0.0	0.0
LIVER	4.00389E-07	0.0	0.0
LUNG	0.0	0.0	0.0
KIDNEY	0.0	0.0	0.0
SKIN	0.0	0.0	0.0

VALUE	MNEMONIC	DESCRIPTION
3.00000E+04	B(1,1,1)	SALT WATER ACCUMULATION FACTORS (PCI/KG BIOTA PER PCI/L OF WATER)
1.00000E+02	B(1,1,2)	FISH
1.00000E+02	B(1,1,3)	CRUSTACEA
		MOLLUSKS
3.00000E+04	B(1,2,1)	FRESH WATER ACCUMULATION FACTORS (PCI/KG BIOTA PER PCI/L OF WATER)
1.00000E+02	B(1,2,2)	FISH
1.00000E+02	B(1,2,3)	CRUSTACEA
		MOLLUSKS
1.00000E-04	FKT(1)	SOIL RETENTION FACTOR (INVERSE OF RETARDATION FACTOR)
9.40000E-03	BV(1)	PLANT CONCENTRATION FACTOR IN KG(PLANT WET WEIGHT)/KG(DRY SOIL)
		TRANSFER COEFFICIENTS FOR ANIMAL PRODUCTS
2.00000E-05	SA(1,1)	EGGS IN DAYS/EGG
1.20000E-03	SA(1,2)	MILK IN DAYS/LITER
5.00000E-04	SA(1,3)	BEEF IN DAYS/KG
1.00000E-03	SA(1,4)	PORK IN DAYS/KG
1.00000E-04	SA(1,5)	POULTRY IN DAYS/KG
1.40000E+01	TR(1)	ATOMIC HALF LIFE IN YEARS
		EFFECTIVE HALF LIFE IN SEVEN ORGANS IN DAYS
6.59000E+02	BHL(1,1)	BODY
1.00000E+01	BHL(1,2)	GI-LLI
1.00000E+01	BHL(1,3)	THYROID
8.32000E+02	BHL(1,4)	BONE
7.22000E+02	BHL(1,5)	LIVER
1.00000E+01	BHL(1,6)	LUNG
6.59000E+02	BHL(1,7)	KIDNEY
2	NCAT(1)	FISSION PRODUCTS CATEGORY NUMBER
1.00000E+05	FKS(1)	RIVER SEDIMENT CONCENTRATION FACTOR
1.00000E+05	FKSE(1)	ESTUARY SEDIMENT CONCENTRATION FACTOR
1.00000E+00	TREAT(1,1)	FRACTION OF NUCLIDE REMAINING IN RIVER WATER AFTER TREATMENT
1.00000E+00	TREAT(1,2)	FRACTION OF NUCLIDE REMAINING IN WELL WATER AFTER TREATMENT

***** BIDOSE INPUT DATA SUMMARY PAGE 66 *****

ZR93 PARAMETERS (I = 29)

DF50(I,COLUMN,ROW) DOSE COMMITMENT FACTORS FOR CHRONIC EXPOSURE OVER 50 YEARS

	INGESTION MREM/PCI/YR	EXPOSURE MREM/HR/YR PER PCI/M**2	IMMERSION MREM/HR/YR PER PCI/L
BODY EQUIV.	1.92355E-05	0.0	0.0
BDDY	5.28200E-08	0.0	0.0
GI-LLI	1.21403E-04	0.0	0.0
THYROID	0.0	0.0	0.0
BONE	1.92848E-06	0.0	0.0
LIVER	9.81190E-09	0.0	0.0
LUNG	0.0	0.0	0.0
KIDNEY	0.0	0.0	0.0
SKIN	0.0	0.0	0.0

VALUE	MNEMONIC	DESCRIPTION
2.00000E+02	B(1,1,1)	SALT WATER ACCUMULATION FACTORS (PCI/KG BIOTA PER PCI/L OF WATER)
8.00000E+01	B(1,1,2)	FISH
8.00000E+01	B(1,1,3)	CRUSTACEA
		MOLLUSKS
3.30000E+00	B(1,2,1)	FRESH WATER ACCUMULATION FACTORS (PCI/KG BIOTA PER PCI/L OF WATER)
6.70000E+00	B(1,2,2)	FISH
6.70000E+00	B(1,2,3)	CRUSTACEA
		MOLLUSKS
1.00000E-04	FKT(1)	SOIL RETENTION FACTOR (INVERSE OF RETARDATION FACTOR)
1.70000E-04	3V(1)	PLANT CONCENTRATION FACTOR IN KG(PLANT WET WEIGHT)/KG(DRY SOIL)
6.00000E-05	SA(1,1)	TRANSFER COEFFICIENTS FOR ANIMAL PRODUCTS
2.50000E-06	SA(1,2)	EGGS IN DAYS/EGG
5.00000E-04	SA(1,3)	MILK IN DAYS/LITER
1.00000E-03	SA(1,4)	BEEF IN DAYS/KG
1.00000E-04	SA(1,5)	PORK IN DAYS/KG
		POULTRY IN DAYS/KG
1.50000E+06	TR(1)	ATOMIC HALF LIFE IN YEARS
4.50000E+02	BHL(1,1)	EFFECTIVE HALF LIFE IN SEVEN ORGANS IN DAYS
1.00000E+01	BHL(1,2)	BODY
1.00000E+01	BHL(1,3)	GI-LLI
1.00000E+03	BHL(1,4)	THYROID
3.20000E+02	BHL(1,5)	BONE
1.00000E+01	BHL(1,6)	LIVER
9.00000E+02	BHL(1,7)	LUNG
		KIDNEY
2	NCAT(1)	FISSION PRODUCTS CATEGORY NUMBER
5.30000E+02	FKS(1)	RIVER SEDIMENT CONCENTRATION FACTOR
1.00000E+05	FKSE(1)	ESTUARY SEDIMENT CONCENTRATION FACTOR
1.00000E+00	TREAT(1,1)	FRACTION OF NUCLIDE REMAINING IN RIVER WATER AFTER TREATMENT
1.00000E+00	TREAT(1,2)	FRACTION OF NUCLIDE REMAINING IN WELL WATER AFTER TREATMENT

***** BIDDSE INPUT DATA SUMMARY PAGE 68 *****

SR90 PARAMETERS (I = 30)

DF50(I,COLUMN,ROW)

LDSE COMMITMENT FACTORS FOR CHRONIC EXPOSURE OVER 50 YEARS

	INGESTION MREM/PC1/YR	EXPOSURE MREM/HR/YR PER PC1/M**2	IMMERSION MREM/HR/YR PER PC1/L
BODY EQUIV.	3.73491E-02	0.0	2.70000E-08
BDDY	6.18421E-02	0.0	2.70000E-08
GI-LLI	6.14513E-03	0.0	2.70000E-08
THYROID	0.0	0.0	2.70000E-08
BONE	2.46777E-01	0.0	2.70000E-08
LIVER	0.0	0.0	2.70000E-08
LUNG	0.0	0.0	2.70000E-08
KIDNEY	0.0	0.0	2.70000E-08
SKIN	0.0	0.0	7.50000E-06

VALUE	MNEMONIC	DESCRIPTION
2.00000E+00	B(1.1.1)	SALT WATER ACCUMULATION FACTORS (PC1/KG BIOTA PER PC1/L OF WATER)
2.00000E+01	B(1.1.2)	FISH
2.00000E+01	B(1.1.3)	CRUSTACEA
		MOLLUSKS
3.00000E+01	B(1.2.1)	FRESH WATER ACCUMULATION FACTORS (PC1/KG BIOTA PER PC1/L OF WATER)
1.00000E+02	B(1.2.2)	FISH
1.00000E+02	B(1.2.3)	CRUSTACEA
		MOLLUSKS
1.00000E-02	FKT(1)	SOIL RETENTION FACTOR (INVERSE OF RETARDATION FACTOR)
2.00000E-01	BV(1)	PLANT CONCENTRATION FACTOR IN KG(PLANT WET WEIGHT)/KG(DRY SOIL)
7.00000E-03	SA(1.1)	TRANSFER COEFFICIENTS FOR ANIMAL PRODUCTS
1.00000E-03	SA(1.2)	EGGS IN DAYS/EGG
2.00000E-03	SA(1.3)	MILK IN DAYS/LITER
8.00000E-03	SA(1.4)	BEEF IN DAYS/KG
9.00000E-04	SA(1.5)	PORK IN DAYS/KG
		POULTRY IN DAYS/KG
2.80000E+01	TR(1)	ATOMIC HALF LIFE IN YEARS
5.73000E+03	BHL(1.1)	EFFECTIVE HALF LIFE IN SEVEN ORGANS IN DAYS
1.00000E+01	BHL(1.2)	BODY
1.00000E+01	BHL(1.3)	GI-LLI
6.53000E+03	BHL(1.4)	THYROID
1.00000E+01	BHL(1.5)	BONE
1.00000E+01	BHL(1.6)	LIVER
1.00000E+01	BHL(1.7)	LUNG
		KIDNEY
2	NAT(1)	FISSION PRODUCTS CATEGORY NUMBER
1.30000E+03	FKS(1)	RIVER SEDIMENT CONCENTRATION FACTOR
5.30000E+01	FKSE(1)	ESTUARY SEDIMENT CONCENTRATION FACTOR
1.00000E+00	TREAT(1.1)	FRACTION OF NUCLIDE REMAINING IN RIVER WATER AFTER TREATMENT
1.00000E+00	TREAT(1.2)	FRACTION OF NUCLIDE REMAINING IN WELL WATER AFTER TREATMENT

***** BIODOSE INPUT DATA SUMMARY PAGE 70 *****

SE79 PARAMETERS (1 = 31)

OF50(1,COLUMN,ROW; DOSE COMMITMENT FACTORS FOR CHRONIC EXPOSURE OVER 50 YEARS

	INGESTION MREM/PC1/YR	EXPOSURE MREM/HR/YR PER PC1/M**2	IMMERSION MREM/HR/YR PER PC1/L
BODY EQUIV.	3.54845E-05	0.0	1.71768E-09
BODY	2.19309E-05	0.0	1.70000E-09
GI-LLI	2.68787E-05	0.0	1.70000E-09
THYROID	0.0	0.0	1.70000E-09
BONE	0.0	0.0	1.70000E-09
LIVER	1.31250E-04	0.0	1.70000E-09
LUNG	0.0	0.0	1.70000E-09
KIDNEY	2.27302E-04	0.0	1.70000E-09
SKIN	0.0	0.0	1.60000E-07

VALUE	MNEMONIC
4.00000E+03	B(1,1,1)
1.00000E+03	B(1,1,2)
1.00000E+03	B(1,1,3)
1.70000E+02	B(1,2,1)
1.70000E+02	B(1,2,2)
1.70000E+02	B(1,2,3)

1.00000E-02
1.30000E+00

FKT(1)
BV(1)

1.00000E-02
2.30000E-02
9.00000E-04
9.00000E-04
9.00000E-04

SA(1,1)
SA(1,2)
SA(1,3)
SA(1,4)
SA(1,5)

6.50000E+04

TR(1)

1.10000E+01
1.00000E+01
1.00000E+00
1.00000E+00
2.40000E+01
1.00000E+00
1.10000E+01

BHL(1,1)
BHL(1,2)
BHL(1,3)
BHL(1,4)
BHL(1,5)
BHL(1,6)
BHL(1,7)

2
1.00000E+02 ★
1.00000E+02 ★
1.00000E+00
1.00000E+00

NCAT(1)
FKS(1)
FKSE(1)
TREAT(1,1)
TREAT(1,2)

DESCRIPTION
SALT WATER ACCUMULATION FACTORS (PCI/KG BIOTA PER PCI/L OF WATER)
FISH
CRUSTACEA
MOLLUSKS
FRESH WATER ACCUMULATION FACTORS (PCI/KG BIOTA PER PCI/L OF WATER)
FISH
CRUSTACEA
MOLLUSKS
SOIL RETENTION FACTOR (INVERSE OF RETARDATION FACTOR)
PLANT CONCENTRATION FACTOR IN KG(PLANT WET WEIGHT)/KG(DRY SOIL)
TRANSFER COEFFICIENTS FOR ANIMAL PRODUCTS
EGGS IN DAYS/EGG
MILK IN DAYS/LITER
BEEF IN DAYS/KG
PORK IN DAYS/KG
POULTRY IN DAYS/KG
ATOMIC HALF LIFE IN YEARS
EFFECTIVE HALF LIFE IN SEVEN ORGANS IN DAYS
BODY
GI-LLI
THYROID
BONE
LIVER
LUNG
KIDNEY
FISSION PRODUCTS CATEGORY NUMBER
RIVER SEDIMENT CONCENTRATION FACTOR
ESTUARY SEDIMENT CONCENTRATION FACTOR
FRACTION OF NUCLIDE REMAINING IN RIVER WATER AFTER TREATMENT
FRACTION OF NUCLIDE REMAINING IN WELL WATER AFTER TREATMENT

NIS9 PARAMETERS (I = 32)

DFS0(1,COLUMN,ROW)

	DOSE COMMITMENT FACTORS FOR CHRONIC EXPOSURE OVER 50 YEARS		
	INGESTION MREM/PCI/YR	EXPOSURE MREM/HR/YR PER PCI/M**2	IMMERSION MREM/HR/YR PER PCI/L
BDDY EQUIV.	5.68189E-05	0.0	1.15000E-07
BDDY	7.70000E-05	0.0	1.15000E-07
GI-LLI	3.45000E-05	0.0	1.15000E-07
THYROID	0.0	0.0	1.15000E-07
BONE	4.58000E-04	0.0	1.15000E-07
LIVER	6.65000E-05	0.0	1.15000E-07
LUNG	0.0	0.0	1.15000E-07
KIDNEY	0.0	0.0	1.15000E-07
SKIN	0.0	0.0	1.70000E-07

VALUE	MNEMONIC	DESCRIPTION
1.00000E+02	B(1,1,1)	SALT WATER ACCUMULATION FACTORS (PCI/KG BIOTA PER PCI/L OF WATER)
2.50000E+02	B(1,1,2)	FISH
2.50000E+02	B(1,1,3)	CRUSTACEA
		MOLLUSKS
1.00000E+02	B(1,2,1)	FRESH WATER ACCUMULATION FACTORS (PCI/KG BIOTA PER PCI/L OF WATER)
1.00000E+02	B(1,2,2)	FISH
1.00000E+02	B(1,2,3)	CRUSTACEA
		MOLLUSKS
3.00000E-03	FKT(1)	SOIL RETENTION FACTOR (INVERSE OF RETARDATION FACTOR)
1.90000E-02	BV(1)	PLANT CONCENTRATION FACTOR IN KG(PLANT WET WEIGHT)/KG(DRY SOIL)
5.00000E-03	SA(1,1)	TRANSFER COEFFICIENTS FOR ANIMAL PRODUCTS
3.40000E-03	SA(1,2)	EGGS IN DAYS/EGG
1.00000E-03	SA(1,3)	MILK IN DAYS/LITER
5.00000E-03	SA(1,4)	BEEF IN DAYS/KG
1.00000E-03	SA(1,5)	PORK IN DAYS/KG
		POULTRY IN DAYS/KG
7.94000E+04	TR(1)	ATOMIC HALF LIFE IN YEARS
6.67000E+02	BHL(1,1)	EFFECTIVE HALF LIFE IN SEVEN ORGANS IN DAYS
1.00000E+01	BHL(1,2)	BDDY
1.00000E+01	BHL(1,3)	GI-LLI
2.00000E+02	BHL(1,4)	THYROID
5.00000E+02	BHL(1,5)	BONE
1.00000E+01	BHL(1,6)	LIVER
1.00000E+01	BHL(1,7)	LUNG
		KIDNEY
4.80000E+03	NCAT(1)	FISSION PRODUCTS CATEGORY NUMBER
7.80000E+04	FKS(1)	RIVER SEDIMENT CONCENTRATION FACTOR
1.00000E+00	FKSE(1)	ESTUARY SEDIMENT CONCENTRATION FACTOR
1.00000E+00	TREAT(1,1)	FRACTION OF NUCLIDE REMAINING IN RIVER WATER AFTER TREATMENT
1.00000E+00	TREAT(1,2)	FRACTION OF NUCLIDE REMAINING IN WELL WATER AFTER TREATMENT

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C14 PARAMETERS (I = 33)

DF50(1,COLUMN,ROW) DOSE COMMITMENT FACTORS FOR CHRONIC EXPOSURE OVER 50 YEARS

	INGESTION MREM/PCI/YR	EXPOSURE MREM/HR/YR PER PCI/M**2	IMMERSION MREM/HR/YR PER PCI/L
BODY EQUIV.	3.25545E-05	0.0	0.0
BODY	2.83775E-05	0.0	0.0
GI-LLI	2.83775E-05	0.0	0.0
THYROID	2.83775E-05	0.0	0.0
BONE	1.41551E-04	0.0	0.0
LIVER	2.83775E-05	0.0	0.0
LUNG	2.83775E-05	0.0	0.0
KIDNEY	2.83775E-05	0.0	0.0
SKIN	0.0	0.0	1.90000E-07

VA-UE	MNEMONIC	DESCRIPTION
1.80000E+03	B(1.1.1)	SALT WATER ACCUMULATION FACTORS (PCI/KG BIOTA PER PCI/L OF WATER)
1.40000E+03	B(1.1.2)	FISH
1.40000E+03	B(1.1.3)	CRUSTACEA
		MOLLUSKS
4.60000E+03	B(1.2.1)	FRESH WATER ACCUMULATION FACTORS (PCI/KG BIOTA PER PCI/L OF WATER)
9.10000E+03	B(1.2.2)	FISH
9.10000E+03	B(1.2.3)	CRUSTACEA
		MOLLUSKS
1.00000E-01	FKT(1)	SOIL RETENTION FACTOR (INVERSE OF RETARDATION FACTOR)
5.50000E+00	BV(1)	PLANT CONCENTRATION FACTOR IN KG(PLANT WET WEIGHT)/KG(DRY SOIL)
		TRANSFER COEFFICIENTS FOR ANIMAL PRODUCTS
1.00000E+00	SA(1.1)	EGGS IN DAYS/EGG
7.50000E-03	SA(1.2)	MILK IN DAYS/LITER
1.00000E+00	SA(1.3)	BEEF IN DAYS/KG
1.00000E+00	SA(1.4)	PORK IN DAYS/KG
1.00000E+00	SA(1.5)	POULTRY IN DAYS/KG
5.73000E+03	TR(1)	ATOMIC HALF LIFE IN YEARS
		EFFECTIVE HALF LIFE IN SEVEN ORGANS IN DAYS
1.00000E+01	BHL(1.1)	BODY
1.00000E+01	BHL(1.2)	GI-LLI
1.00000E+01	BHL(1.3)	THYROID
4.00000E+01	BHL(1.4)	BONE
1.00000E+01	BHL(1.5)	LIVER
1.00000E+01	BHL(1.6)	LUNG
1.00000E+01	BHL(1.7)	KIDNEY
1	NCAT(1)	1129. TC99 CATEGORY NUMBER
1.00000E+01 ★	FKS(1)	RIVER SEDIMENT CONCENTRATION FACTOR
1.00000E+01 ★	FKSE(1)	ESTUARY SEDIMENT CONCENTRATION FACTOR
1.00000E+00	TREAT(1.1)	FRACTION OF NUCLIDE REMAINING IN RIVER WATER AFTER TREATMENT
1.00000E+00	TREAT(1.2)	FRACTION OF NUCLIDE REMAINING IN WELL WATER AFTER TREATMENT

***** BIDDOSE INPUT DATA SUMMARY PAGE 76 *****

NP239 PARAMETERS (I = 34)

DF50(I,COLUMN,ROW)

DOSE COMMITMENT FACTORS FOR CHRONIC EXPOSURE OVER 50 YEARS

	INGESTION MREM/PCI/YR	EXPOSURE MREM/HR/YR PER PCI/M**2	IMMERSION MREM/HR/YR PER PCI/L
BODY EQUIV.	1.93035E-04	4.79940E-08	1.21240E-05
BODY	3.22440E-09	4.75000E-08	1.20000E-05
GI-LLI	1.22403E-03	4.75000E-08	1.20000E-05
THYROID	0.0	4.75000E-08	1.20000E-05
BONE	5.94889E-08	4.75000E-08	1.20000E-05
LIVER	5.84891E-09	4.75000E-08	1.20000E-05
LUNG	0.0	4.75000E-08	1.20000E-05
KIDNEY	1.82466E-08	4.75000E-08	1.20000E-05
SKIN	0.0	5.50000E-08	1.85000E-05

VALUE	MNEMONIC	DESCRIPTION
2.50000E+01	B(1,1,1)	SALT WATER ACCUMULATION FACTORS (PCI/KG BIOTA PER PCI/L OF WATER)
1.00000E+03	B(1,1,2)	FISH
5.00000E+03	B(1,1,3)	CRUSTACEA
		MOLLUSKS
2.50000E+01	B(1,2,1)	FRESH WATER ACCUMULATION FACTORS (PCI/KG BIOTA PER PCI/L OF WATER)
1.00000E+03	B(1,2,2)	FISH
1.00000E+03	B(1,2,3)	CRUSTACEA
		MOLLUSKS
1.00000E-04	FKT(1)	SOIL RETENTION FACTOR (INVERSE OF RETARDATION FACTOR)
2.50000E-04	BV(1)	PLANT CONCENTRATION FACTOR IN KG(PLANT WET WEIGHT)/KG(DRY SOIL)
		TRANSFER COEFFICIENTS FOR ANIMAL PRODUCTS
1.00000E-04	SA(1,1)	EGGS IN DAYS/EGG
5.00000E-06	SA(1,2)	MILK IN DAYS/LITER
5.00000E-03	SA(1,3)	BEEF IN DAYS/KG
1.00000E-02	SA(1,4)	PORK IN DAYS/KG
4.00000E-03	SA(1,5)	POULTRY IN DAYS/KG
6.44000E-03	TR(1)	ATOMIC HALF LIFE IN YEARS
		EFFECTIVE HALF LIFE IN SEVEN ORGANS IN DAYS
2.35000E+00	BHL(1,1)	BODY
1.00000E+01	BHL(1,2)	GI-LLI
1.00000E+00	BHL(1,3)	THYROID
2.35000E+00	BHL(1,4)	BONE
2.35000E+00	BHL(1,5)	LIVER
1.00000E+00	BHL(1,6)	LUNG
2.35000E+00	BHL(1,7)	KIDNEY
3	NCAT(1)	ACTINIDES CATEGORY NUMBER
8.40000E+04	FKS(1)	RIVER SEDIMENT CONCENTRATION FACTOR
1.00000E+05	FKSE(1)	ESTUARY SEDIMENT CONCENTRATION FACTOR
1.00000E+00	TREAT(1,1)	FRACTION OF NUCLIDE REMAINING IN RIVER WATER AFTER TREATMENT
1.00000E+00	TREAT(1,2)	FRACTION OF NUCLIDE REMAINING IN WELL WATER AFTER TREATMENT

AC225 PARAMETERS (I = 35)

DF50(I,COLUMN,ROW)

DOSE COMMITMENT FACTORS FOR CHRONIC EXPOSURE OVER 50 YEARS

	INGESTION MREM/PCI/YR	EXPOSURE MREM/HR/YR PER PCI/M**2	IMMERSION MREM/HR/YR PER PCI/L
BODY EQUIV.	3.22798E-03	1.21248E-07	2.16730E-05
BODY	1.47883E-05	1.20000E-07	2.14500E-05
GI-LLI	2.03339E-02	1.20000E-07	2.14500E-05
THYROID	0.0	1.20000E-07	2.14500E-05
BONE	2.19826E-04	1.20000E-07	2.14500E-05
LIVER	3.02760E-04	1.20000E-07	2.14500E-05
LUNG	0.0	1.20000E-07	2.14500E-05
KIDNEY	3.44727E-05	1.20000E-07	2.14500E-05
SKIN	0.0	1.28000E-07	5.45000E-05

VAL-UE	MNEMONIC	DESCRIPTION
5.00000E+01}	B(1,1,1)	SALT WATER ACCUMULATION FACTORS (PCI/KG BIDTA PER PCI/L OF WATER)
1.00000E+02} A	B(1,1,2)	FISH
1.00000E+02}	B(1,1,3)	CRUSTACEA
		MOLLUSKS
5.00000E+01}	B(1,2,1)	FRESH WATER ACCUMULATION FACTORS (PCI/KG BIDTA PER PCI/L OF WATER)
2.50000E+02} A	B(1,2,2)	FISH
2.50000E+02}	B(1,2,3)	CRUSTACEA
		MOLLUSKS
2.00000E-05} A	FKT(I)	SOIL RETENTION FACTOR (INVERSE OF RETARDATION FACTOR)
3.10000E-04}	BV(I)	PLANT CONCENTRATION FACTOR IN KG(PLANT WET WEIGHT)/KG(DRY SOIL)
9.99999E-07}	SA(1,1)	TRANSFER COEFFICIENTS FOR ANIMAL PRODUCTS
8.00000E-03} A	SA(1,2)	EGGS IN DAYS/EGG
9.00000E-04}	SA(1,3)	MILK IN DAYS/LITER
9.00000E-04}	SA(1,4)	BEEF IN DAYS/KG
9.00000E-04}	SA(1,5)	PORK IN DAYS/KG
		POULTRY IN DAYS/KG
2.74000E-02	TR(I)	ATOMIC HALF LIFE IN YEARS
1.00000E+01	BHL(1,1)	EFFECTIVE HALF LIFE IN SEVEN ORGANS IN DAYS
1.00000E+01	BHL(1,2)	BODY
1.00000E+00	BHL(1,3)	GI-LLI
1.00000E+01	BHL(1,4)	THYROID
1.00000E+01	BHL(1,5)	BONE
1.00000E+00	BHL(1,6)	LIVER
1.00000E+01	BHL(1,7)	LUNG
		KIDNEY
3	NCAT(I)	ACTINIDES CATEGORY NUMBER
5.00000E+03} A	FKS(I)	RIVER SEDIMENT CONCENTRATION FACTOR
5.00000E+03} A	FKSE(I)	ESTUARY SEDIMENT CONCENTRATION FACTOR
1.00000E+00	TREAT(1,1)	FRACTION OF NUCLIDE REMAINING IN RIVER WATER AFTER TREATMENT
1.00000E+00	TREAT(1,2)	FRACTION OF NUCLIDE REMAINING IN WELL WATER AFTER TREATMENT

RA225 PARAMETERS (I = 36)

DF50(I,COLUMN,ROW)

DOSE COMMITMENT FACTORS FOR CHRONIC EXPOSURE OVER 50 YEARS

	INGESTION MREM/PCI/YR	EXPOSURE MREM/HR/YR PER PCI/M**2	IMMERSION MREM/HR/YR PER PCI/L
BODY EQUIV.	4.32353E-02	4.20000E-09	9.50000E-07
BODY	6.55000E-02	4.20000E-09	9.50000E-07
GI-LLI	1.53000E-02	4.20000E-09	9.50000E-07
THYROID	0.0	4.20000E-09	9.50000E-07
BONE	3.28000E-01	4.20000E-09	9.50000E-07
LIVER	3.90000E-04	4.20000E-09	9.50000E-07
LUNG	0.0	4.20000E-09	9.50000E-07
KIDNEY	0.0	4.20000E-09	9.50000E-07
SKIN	0.0	6.00000E-09	3.15000E-06

VALUE	MEMORIC	DESCRIPTION
5.00000E+01	B(1.1.1)	SALT WATER ACCUMULATION FACTORS (PCI/KG BIOTA PER PCI/L OF WATER)
1.00000E+02	B(1.1.2)	FISH
1.00000E+02	B(1.1.3)	CRUSTACEA
		MOLLUSKS
5.00000E+01	B(1.2.1)	FRESH WATER ACCUMULATION FACTORS (PCI/KG BIOTA PER PCI/L OF WATER)
2.50000E+02	B(1.2.2)	FISH
2.50000E+02	B(1.2.3)	CRUSTACEA
		MOLLUSKS
2.00000E-05	FKT(1)	SOIL RETENTION FACTOR (INVERSE OF RETARDATION FACTOR)
3.10000E-04	BV(1)	PLANT CONCENTRATION FACTOR IN KG(PLANT WET WEIGHT)/KG(DRY SOIL)
		TRANSFER COEFFICIENTS FOR ANIMAL PRODUCTS
9.99999E-07	SA(1.1)	EGGS IN DAYS/EGG
8.00000E-03	SA(1.2)	MILK IN DAYS/LITER
9.00000E-04	SA(1.3)	BEEF IN DAYS/KG
9.00000E-04	SA(1.4)	PORK IN DAYS/KG
9.00000E-04	SA(1.5)	POULTRY IN DAYS/KG
4.00000E-02	TR(1)	ATOMIC HALF LIFE IN YEARS
		EFFECTIVE HALF LIFE IN SEVEN ORGANS IN DAYS
1.48000E+01	BHL(1.1)	BODY
1.00000E+01	BHL(1.2)	GI-LLI
1.00000E+01	BHL(1.3)	THYROID
1.48000E+01	BHL(1.4)	BONE
5.97000E+00	BHL(1.5)	LIVER
1.00000E+01	BHL(1.6)	LUNG
5.97000E+00	BHL(1.7)	KIDNEY
3	NCAT(1)	ACTINIDES CATEGORY NUMBER
5.00000E+03	FKS(1)	RIVER SEDIMENT CONCENTRATION FACTOR
5.00000E+03	FKSE(1)	ESTUARY SEDIMENT CONCENTRATION FACTOR
1.00000E+00	TREAT(1.1)	FRACTION OF NUCLIDE REMAINING IN RIVER WATER AFTER TREATMENT
1.00000E+00	TREAT(1.2)	FRACTION OF NUCLIDE REMAINING IN WELL WATER AFTER TREATMENT

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RA223 PARAMETERS (I = 37)

DF50(1,COLUMN,ROW)

	DOSE COMMITMENT FACTORS FOR CHRONIC EXPOSURE OVER 50 YEARS		
	INGESTION MREM/PCI/YR	EXPOSURE MREM/HR/YR PER PCI/M**2	IMMERSION MREM/HR/YR PER PCI/L
BODY EQUIV.	3.43972E-02	1.67221E-07	3.46061E-05
BODY	4.96552E-02	1.65500E-07	3.42500E-05
GI-LLI	1.60373E-02	1.65500E-07	3.42500E-05
THYROID	0.0	1.65500E-07	3.42500E-05
BONE	2.48276E-01	1.65500E-07	3.42500E-05
LIVER	3.82339E-04	1.65500E-07	3.42500E-05
LUNG	0.0	1.65500E-07	3.42500E-05
KIDNEY	1.08454E-02	1.65500E-07	3.42500E-05
SKIN	0.0	1.89500E-07	8.50000E-05

VALUE	MNEMONIC	DESCRIPTION
5.00000E+01	B(1,1,1)	SALT WATER ACCUMULATION FACTORS (PCI/KG BIOTA PER PCI/L OF WATER)
1.00000E+02	B(1,1,2)	FISH
1.00000E+02	B(1,1,3)	CRUSTACEA
		MOLLUSKS
5.00000E+01	B(1,2,1)	FRESH WATER ACCUMULATION FACTORS (PCI/KG BIOTA PER PCI/L OF WATER)
2.50000E+02	B(1,2,2)	FISH
2.50000E+02	B(1,2,3)	CRUSTACEA
		MOLLUSKS
2.00000E-04 A	FKT(I)	SOIL RETENTION FACTOR (INVERSE OF RETARDATION FACTOR)
2.50000E-03	BV(I)	PLANT CONCENTRATION FACTOR IN KG(PLANT WET WEIGHT)/KG(DRY SOIL)
9.99999E-07	SA(1,1)	TRANSFER COEFFICIENTS FOR ANIMAL PRODUCTS
8.00000E-03	SA(1,2)	EGGS IN DAYS/EGG
9.00000E-04	SA(1,3)	MILK IN DAYS/LITER
9.00000E-04	SA(1,4)	BEEF IN DAYS/KG
9.00000E-04	SA(1,5)	PORK IN DAYS/KG
	SA(1,5)	POULTRY IN DAYS/KG
3.10000E-02	TR(I)	ATOMIC HALF LIFE IN YEARS
1.14000E+01	BHL(1,1)	EFFECTIVE HALF LIFE IN SEVEN ORGANS IN DAYS
1.00000E+01	BHL(1,2)	BODY
1.00000E+00	BHL(1,3)	GI-LLI
1.14000E+01	BHL(1,4)	THYROID
5.30000E+00	BHL(1,5)	BONE
1.00000E+00	BHL(1,6)	LIVER
5.30000E+00	BHL(1,7)	LUNG
		KIDNEY
3	NCAT(I)	ACTINIDES CATEGORY NUMBER
1.00000E+04 A	FKS(I)	RIVER SEDIMENT CONCENTRATION FACTOR
1.00000E+04 A	FKSE(I)	ESTUARY SEDIMENT CONCENTRATION FACTOR
1.00000E+00	TREAT(1,1)	FRACTION OF NUCLIDE REMAINING IN RIVER WATER AFTER TREATMENT
1.00000E+00	TREAT(1,2)	FRACTION OF NUCLIDE REMAINING IN WELL WATER AFTER TREATMENT

S8126 PARAMETERS (I = 38)

DF50(I,COLUMN,ROW)

DOSE COMMITMENT FACTORS FOR CHRONIC EXPOSURE OVER 50 YEARS

	INGESTION MREM/PCI/YR	EXPOSURE MREM/HR/YR PER PCI/M**2	IMMERSION MREM/HR/YR PER PCI/L
BODY EQUIV.	8.45855E-03	4.49628E-07	1.21248E-04
BODY	5.54587E-05	4.45000E-07	1.20000E-04
GI-LLI	2.66289E-03	4.45000E-07	1.20000E-04
THYROID	1.17472E-06	4.45000E-07	1.20000E-04
BONE	1.53866E-04	4.45000E-07	1.20000E-04
LIVER	3.00276E-06	4.45000E-07	1.20000E-04
LUNG	3.43701E-02	4.45000E-07	1.20000E-04
KIDNEY	0.0	4.45000E-07	1.20000E-04
SKIN	0.0	5.00000E-07	1.65000E-04

VALUE	MNEMONIC	DESCRIPTION
3.00000E+03}	B(1,1,1)	SALT WATER ACCUMULATION FACTORS (PCI/KG BIOTA PER PCI/L OF WATER)
1.00000E+03}	B(1,1,2)	FISH
1.00000E+03}	B(1,1,3)	CRUSTACEA
		MOLLUSKS
3.00000E+03}	B(1,2,1)	FRESH WATER ACCUMULATION FACTORS (PCI/KG BIOTA PER PCI/L OF WATER)
1.00000E+03}	B(1,2,2)	FISH
1.00000E+03}	B(1,2,3)	CRUSTACEA
		MOLLUSKS
9.00000E-04}	FKT(1)	SOIL RETENTION FACTOR (INVERSE OF RETARDATION FACTOR)
2.50000E-03}	BV(1)	PLANT CONCENTRATION FACTOR IN KG(PLANT WET WEIGHT)/KG(DRY SOIL)
		TRANSFER COEFFICIENTS FOR ANIMAL PRODUCTS
1.00000E-05}	SA(1,1)	EGGS IN DAYS/EGG
2.50000E-03}	SA(1,2)	MILK IN DAYS/LITER
2.50000E-03}	SA(1,3)	BEEF IN DAYS/KG
5.00000E-03}	SA(1,4)	PORK IN DAYS/KG
2.00000E-03}	SA(1,5)	POULTRY IN DAYS/KG
3.40000E-02	TR(1)	ATOMIC HALF LIFE IN YEARS
		EFFECTIVE HALF LIFE IN SEVEN ORGANS IN DAYS
9.40000E+00	BHL(1,1)	BODY
1.00000E+01	BHL(1,2)	GI-LLI
3.00000E+00	BHL(1,3)	THYROID
1.10000E+01	BHL(1,4)	BONE
9.40000E+00	BHL(1,5)	LIVER
1.10000E+01	BHL(1,6)	LUNG
1.00000E+00	BHL(1,7)	KIDNEY
2	NCAT(1)	FISSION PRODUCTS CATEGORY NUMBER
5.00000E+04}	FKS(1)	RIVER SEDIMENT CONCENTRATION FACTOR
5.00000E+04}	FKSE(1)	ESTUARY SEDIMENT CONCENTRATION FACTOR
1.00000E+00	TREAT(1,1)	FRACTION OF NUCLIDE REMAINING IN RIVER WATER AFTER TREATMENT
1.00000E+00	TREAT(1,2)	FRACTION OF NUCLIDE REMAINING IN WELL WATER AFTER TREATMENT

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Y90 PARAMETERS (I = 39)

DF50(I,COLUMN,ROW)

	DOSE COMMITMENT FACTORS FOR CHRONIC EXPOSURE OVER 50 YEARS		
	INGESTION	EXPOSURE	IMMERSION
	MREM/PC1/YR	MREM/HR/YR	MREM/HR/YR
		PER PC1/M**2	PER PC1/L
BODY EQUIV.	8.27293E-04	1.10000E-10	6.50000E-07
BODY	1.32472E-08	1.10000E-10	6.50000E-07
GI-LLI	5.24584E-03	1.10000E-10	6.50000E-07
THYROID	0.0	1.10000E-10	6.50000E-07
BONE	4.92895E-07	1.10000E-10	6.50000E-07
LIVER	0.0	1.10000E-10	6.50000E-07
LUNG	0.0	1.10000E-10	6.50000E-07
KIDNEY	0.0	1.10000E-10	6.50000E-07
SKIN	0.0	1.30000E-10	4.80000E-05

VALUE	MNEMONIC	DESCRIPTION
2.000000E+00	B(1,1,1)	SALT WATER ACCUMULATION FACTORS (PCI/KG BIOTA PER PCI/L OF WATER)
2.000000E+01	B(1,1,2)	FISH
1.000000E+01	B(1,1,3)	CRUSTACEA
		MOLLUSKS
3.000000E+01	B(1,2,1)	FRESH WATER ACCUMULATION FACTORS (PCI/KG BIOTA PER PCI/L OF WATER)
1.000000E+02	B(1,2,2)	FISH
1.000000E+02	B(1,2,3)	CRUSTACEA
		MOLLUSKS
1.000000E-02	FKT(I)	SOIL RETENTION FACTOR (INVERSE OF RETARDATION FACTOR)
2.000000E-01	BV(1)	PLANT CONCENTRATION FACTOR IN KG(PLANT WET WEIGHT)/KG(DRY SOIL)
7.000000E-03	SA(1,1)	TRANSFER COEFFICIENTS FOR ANIMAL PRODUCTS
1.000000E-03	SA(1,2)	EGGS IN DAYS/EGG
2.000000E-03	SA(1,3)	MILK IN DAYS/LITER
8.000000E-03	SA(1,4)	BEEF IN DAYS/KG
9.000000E-04	SA(1,5)	PORK IN DAYS/KG
		POULTRY IN DAYS/KG
7.300000E-03	TR(I)	ATOMIC HALF LIFE IN YEARS
2.670000E+00	BHL(1,1)	EFFECTIVE HALF LIFE IN SEVEN ORGANS IN DAYS
1.000000E+01	BHL(1,2)	BODY
1.000000E+01	BHL(1,3)	GI-LLI
2.670000E+00	BHL(1,4)	THYROID
1.000000E+01	BHL(1,5)	BONE
1.000000E+01	BHL(1,6)	LIVER
1.000000E+01	BHL(1,7)	LUNG
		KIDNEY
1.300000E+03	NCAT(I)	FISSION PRODUCTS CATEGORY NUMBER
5.300000E+01	FKS(I)	RIVER SEDIMENT CONCENTRATION FACTOR
1.000000E+00	FKSE(I)	ESTUARY SEDIMENT CONCENTRATION FACTOR
1.000000E+00	TREAT(1,1)	FRACTION OF NUCLIDE REMAINING IN RIVER WATER AFTER TREATMENT
1.000000E+00	TREAT(1,2)	FRACTION OF NUCLIDE REMAINING IN WELL WATER AFTER TREATMENT

CM244 PARAMETERS (I = 40)

DF50(I,COLUMN,ROW)

DOSE COMMITMENT FACTORS FOR CHRONIC EXPOSURE OVER 50 YEARS

	INGESTION MREM/PCI/YR	EXPOSURE MREM/HR/YR PER PCI/M**2	IMMERSION MREM/HR/YR PER PCI/L
BODY EQUIV.	2.09871E-03	1.45000E-10	1.30000E-08
BODY	9.80794E-04	1.45000E-10	1.30000E-08
GI-LLI	3.77201E-03	1.45000E-10	1.30000E-08
THYROID	0.0	1.45000E-10	1.30000E-08
BDNE	1.59779E-02	1.45000E-10	1.30000E-08
LIVER	8.66562E-03	1.45000E-10	1.30000E-08
LUNG	0.0	1.45000E-10	1.30000E-08
KIDNEY	4.58570E-03	1.45000E-10	1.30000E-08
SKIN	0.0	9.00000E-10	1.95000E-07

VALUE	MNEMONIC	DESCRIPTION
2.50000E+01	B(1.1.1)	SALT WATER ACCUMULATION FACTORS (PCI/KG BIOTA PER PCI/L OF WATER)
1.00000E+03	B(1.1.2)	FISH
1.00000E+03	B(1.1.3)	CRUSTACEA
		MOLLUSKS
2.50000E+01	B(1.2.1)	FRESH WATER ACCUMULATION FACTORS (PCI/KG BIOTA PER PCI/L OF WATER)
1.00000E+03	B(1.2.2)	FISH
1.00000E+03	B(1.2.3)	CRUSTACEA
		MOLLUSKS
3.00000E-04	FKT(I)	SOIL RETENTION FACTOR (INVERSE OF RETARDATION FACTOR)
2.50000E-03	BV(I)	PLANT CONCENTRATION FACTOR IN KG(PLANT WET WEIGHT)/KG(DRY SOIL)
1.00000E-04	SA(1.1)	TRANSFER COEFFICIENTS FOR ANIMAL PRODUCTS
5.00000E-06	SA(1.2)	EGGS IN DAYS/EGG
5.00000E-03	SA(1.3)	MILK IN DAYS/LITER
1.00000E-02	SA(1.4)	BEEF IN DAYS/KG
4.00000E-03	SA(1.5)	PORK IN DAYS/KG
		POULTRY IN DAYS/KG
1.80000E+01	TR(I)	ATOMIC HALF LIFE IN YEARS
5.07000E+03	BHL(1.1)	EFFECTIVE HALF LIFE IN SEVEN ORGANS IN DAYS
1.00000E+01	BHL(1.2)	BODY
1.00000E+01	BHL(1.3)	GI-LLI
5.90000E+03	BHL(1.4)	THYROID
2.05000E+03	BHL(1.5)	BONE
1.00000E+01	BHL(1.6)	LIVER
5.07000E+03	BHL(1.7)	LUNG
		KIDNEY
3	NCAT(I)	ACTINIDES CATEGORY NUMBER
1.00000E+04	FKS(I)	RIVER SEDIMENT CONCENTRATION FACTOR
1.00000E+04	FKSE(I)	ESTUARY SEDIMENT CONCENTRATION FACTOR
1.00000E+00	TREAT(1.1)	FRACTION OF NUCLIDE REMAINING IN RIVER WATER AFTER TREATMENT
1.00000E+00	TREAT(1.2)	FRACTION OF NUCLIDE REMAINING IN WELL WATER AFTER TREATMENT

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CM242 PARAMETERS (I = 41)

DF50(I,COLUMN,ROW) DOSE COMMITMENT FACTORS FOR CHRONIC EXPOSURE OVER 50 YEARS

	INGESTION MREM/PCI/YR	EXPOSURE MREM/HR/YR PER PCI/M**2	IMMERSION MREM/HR/YR PER PCI/L
BODY EQUIV.	7.97180E-04	2.75000E-10	1.70000E-08
BODY	2.53878E-04	2.75000E-10	1.70000E-08
GI-LLI	3.95686E-03	2.75000E-10	1.70000E-08
THYROID	0.0	2.75000E-10	1.70000E-08
BONE	7.82790E-04	2.75000E-10	1.70000E-08
LIVER	8.10388E-04	2.75000E-10	1.70000E-08
LUNG	0.0	2.75000E-10	1.70000E-08
KIDNEY	2.39877E-04	2.75000E-10	1.70000E-08
SKIN	0.0	1.15000E-09	2.35000E-07

VALUE	MNEMONIC
2.50000E+01	B(1,1,1)
1.00000E+03	B(1,1,2)
1.00000E+03	B(1,1,3)

2.50000E+01	B(1,2,1)
1.00000E+03	B(1,2,2)
1.00000E+03	B(1,2,3)

3.00000E-04	FKT(1)
2.50000E-03	BV(1)

1.00000E-04	SA(1,1)
5.00000E-06	SA(1,2)
5.00000E-03	SA(1,3)
1.00000E-02	SA(1,4)
4.00000E-03	SA(1,5)

4.40000E-01	TR(1)
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1.66000E+03	BHL(1,1)
1.00000E+01	BHL(1,2)
1.00000E+01	BHL(1,3)
1.63000E+02	BHL(1,4)
1.55000E+02	BHL(1,5)
1.00000E+01	BHL(1,6)
1.62000E+02	BHL(1,7)

3	NCAT(1)
1.00000E+04	FKS(1)
1.00000E+04	FKSE(1)
1.00000E+00	TREAT(1,1)
1.00000E+00	TREAT(1,2)

DESCRIPTION
SALT WATER ACCUMULATION FACTORS (PCI/KG BIOTA PER PCI/L OF WATER)
FISH
CRUSTACEA
MOLLUSKS

FRESH WATER ACCUMULATION FACTORS (PCI/KG BIOTA PER PCI/L OF WATER)
FISH
CRUSTACEA
MOLLUSKS

SOIL RETENTION FACTOR (INVERSE OF RETARDATION FACTOR)
PLANT CONCENTRATION FACTOR IN KG(PLANT WET WEIGHT)/KG(DRY SOIL)

TRANSFER COEFFICIENTS FOR ANIMAL PRODUCTS
EGGS IN DAYS/EGG
MILK IN DAYS/LITER
BEEF IN DAYS/KG
PORK IN DAYS/KG
POULTRY IN DAYS/KG

ATOMIC HALF LIFE IN YEARS

EFFECTIVE HALF LIFE IN SEVEN ORGANS IN DAYS

BODY
GI-LLI
THYROID
BONE
LIVER
LUNG
KIDNEY

ACTINIDES CATEGORY NUMBER
RIVER SEDIMENT CONCENTRATION FACTOR
ESTUARY SEDIMENT CONCENTRATION FACTOR
FRACTION OF NUCLIDE REMAINING IN RIVER WATER AFTER TREATMENT
FRACTION OF NUCLIDE REMAINING IN WELL WATER AFTER TREATMENT

PU241 PARAMETERS (I = 42)

DFS0(1,COLUMN,ROW)

DOSE COMMITMENT FACTORS FOR CHRONIC EXPOSURE OVER 50 YEARS

	INGESTION MREM/PCI/YR	EXPOSURE MREM/HR/YR PER PCI/M**2	IMMERSION MREM/HR/YR PER PCI/L
BODY EQUIV.	5.80001E-06	2.30000E-10	3.05000E-09
BDDY	2.56012E-07	2.30000E-10	3.05000E-09
GI-LLI	3.38731E-05	2.30000E-10	3.05000E-09
THYROID	0.0	2.30000E-10	3.05000E-09
BONE	8.78941E-06	2.30000E-10	3.05000E-09
LIVER	1.51136E-06	2.30000E-10	3.05000E-09
LUNG	0.0	2.30000E-10	3.05000E-09
KIDNEY	2.37913E-07	2.30000E-10	3.05000E-09
SKIN	0.0	3.40000E-10	4.75000E-09

VA_U	MNEMONIC	DESCRIPTION
3.00000E+00	B(1,1,1)	SALT WATER ACCUMULATION FACTORS (PCI/KG BIOTA PER PCI/L OF WATER)
2.00000E+02	B(1,1,2)	FISH
2.00000E+02	B(1,1,3)	CRUSTACEA
		MOLLUSKS
3.50000E+00	B(1,2,1)	FRESH WATER ACCUMULATION FACTORS (PCI/KG BIOTA PER PCI/L OF WATER)
1.00000E+02	B(1,2,2)	FISH
1.00000E+02	B(1,2,3)	CRUSTACEA
		MOLLUSKS
1.00000E-04	FKT(1)	SOIL RETENTION FACTOR (INVERSE OF RETARDATION FACTOR)
2.50000E-04	BV(1)	PLANT CONCENTRATION FACTOR IN KG(PLANT WET WEIGHT)/KG(DRY SOIL)
1.00000E-04	SA(1,1)	TRANSFER COEFFICIENTS FOR ANIMAL PRODUCTS
1.50000E-06	SA(1,2)	EGGS IN DAYS/EGG
5.00000E-03	SA(1,3)	MILK IN DAYS/LITER
1.00000E-02	SA(1,4)	BEEF IN DAYS/KG
4.00000E-03	SA(1,5)	PORK IN DAYS/KG
		POULTRY IN DAYS/KG
1.30000E+01	TR(1)	ATOMIC HALF LIFE IN YEARS
4.49000E+03	BHL(1,1)	EFFECTIVE HALF LIFE IN SEVEN ORGANS IN DAYS
1.00000E+01	BHL(1,2)	BODY
1.00000E+01	BHL(1,3)	GI-LLI
4.52000E+03	BHL(1,4)	THYROID
4.15000E+03	BHL(1,5)	BONE
1.00000E+01	BHL(1,6)	LIVER
4.19000E+03	BHL(1,7)	LUNG
		KIDNEY
3	NCAT(1)	ACTINIDES CATEGORY NUMBER
3.80000E+05	FKS(1)	RIVER SEDIMENT CONCENTRATION FACTOR
2.10000E+05	FKSE(1)	ESTUARY SEDIMENT CONCENTRATION FACTOR
1.00000E+00	TREAT(1,1)	FRACTION OF NUCLIDE REMAINING IN RIVER WATER AFTER TREATMENT
1.00000E+00	TREAT(1,2)	FRACTION OF NUCLIDE REMAINING IN WELL WATER AFTER TREATMENT

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PM147 PARAMETERS (I = 43)

DF50(I,COLUMN,ROW) DOSE COMMITMENT FACTORS FOR CHRONIC EXPOSURE OVER 50 YEARS

	INGESTION MREM/PCI/YR	EXPOSURE MREM/HR/YR PER PCI/M**2	IMMERSION MREM/HR/YR PER PCI/L
BODY EQUIV.	6.27039E-05	0.0	3.75000E-09
BODY	1.23668E-07	0.0	3.75000E-09
GI-LLI	3.96186E-04	0.0	3.75000E-09
THYROID	0.0	0.0	3.75000E-09
BONE	3.20183E-06	0.0	3.75000E-09
LIVER	3.05117E-07	0.0	3.75000E-09
LUNG	0.0	0.0	3.75000E-09
KIDNEY	6.45713E-07	0.0	3.75000E-09
SKIN	0.0	0.0	6.50000E-07

VALUE MNEMONIC

2.50000E+01 B(1,1,1)
1.00000E+03 B(1,1,2)
1.00000E+03 B(1,1,3)

2.50000E+01 B(1,2,1)
1.00000E+03 B(1,2,2)
1.00000E+03 B(1,2,3)

4.00000E-04 FKT(1)
2.50000E-03 BV(1)

4.00000E-05 SA(1,1)
2.50000E-06 SA(1,2)
5.00000E-03 SA(1,3)
1.00000E-02 SA(1,4)
4.00000E-03 SA(1,5)

2.60000E+00 TR(1)

3.89000E+02 BHL(1,1)
1.00000E+01 BHL(1,2)
1.00000E+01 BHL(1,3)
5.84000E+02 BHL(1,4)
3.89000E+02 BHL(1,5)
1.00000E+01 BHL(1,6)
3.89000E+02 BHL(1,7)

2 NCAT(1)
1.00000E+05 FKS(1)
1.00000E+05 FKS(1)
1.00000E+00 TREAT(1,1)
1.00000E+00 TREAT(1,2)

DESCRIPTION
SALT WATER ACCUMULATION FACTORS (PCI/KG BIOTA PER PCI/L OF WATER)

FISH
CRUSTACEA
MOLLUSKS

FRESH WATER ACCUMULATION FACTORS (PCI/KG BIOTA PER PCI/L OF WATER)

FISH
CRUSTACEA
MOLLUSKS

SOIL RETENTION FACTOR (INVERSE OF RETARDATION FACTOR)
PLANT CONCENTRATION FACTOR IN KG(PLANT WET WEIGHT)/KG(DRY SOIL)

TRANSFER COEFFICIENTS FOR ANIMAL PRODUCTS

EGGS IN DAYS/EGG
MILK IN DAYS/LITER
BEEF IN DAYS/KG
PORK IN DAYS/KG
POULTRY IN DAYS/KG

ATOMIC HALF LIFE IN YEARS

EFFECTIVE HALF LIFE IN SEVEN ORGANS IN DAYS

BODY
GI-LLI
THYROID
BONE
LIVER
LUNG
KIDNEY

FISSION PRODUCTS CATEGORY NUMBER
RIVER SEDIMENT CONCENTRATION FACTOR
ESTUARY SEDIMENT CONCENTRATION FACTOR
FRACTION OF NUCLIDE REMAINING IN RIVER WATER AFTER TREATMENT
FRACTION OF NUCLIDE REMAINING IN WELL WATER AFTER TREATMENT

CEI44 PARAMETERS (I = 44)

DF50(I,COLUMN,ROW)

DOSE COMMITMENT FACTORS FOR CHRONIC EXPOSURE OVER 50 YEARS

	INGESTION MREM/PCI/YR	EXPOSURE MREM/HR/YR PER PCI/M**2	IMMERSSION MREM/HR/YR PER PCI/L
BODY EQUIV.	1.33361E-03	1.60000E-08	4.30000E-06
BODY	1.32192E-06	1.60000E-08	4.30000E-06
GI-LLI	8.44331E-03	1.60000E-08	4.30000E-06
THYROID	0.0	1.60000E-08	4.30000E-06
BONE	2.45662E-05	1.60000E-08	4.30000E-06
LIVER	1.03358E-05	1.60000E-08	4.30000E-06
LUNG	0.0	1.60000E-08	4.30000E-06
KIDNEY	5.98203E-06	1.60000E-08	4.30000E-06
SKIN	0.0	1.85000E-08	7.90000E-05

VA_UE	MNEMONIC	DESCRIPTION
1.00000E+01	B(1,1,1)	SALT WATER ACCUMULATION FACTORS (PCI/KG BIOA PER PCI/L OF WATER)
6.00000E+02	B(1,1,2)	FISH
6.00000E+02	B(1,1,3)	CRUSTACEA
		MOLLUSKS
1.00000E+00	B(1,2,1)	FRESH WATER ACCUMULATION FACTORS (PCI/KG BIOA PER PCI/L OF WATER)
1.00000E+03	B(1,2,2)	FISH
1.00000E+03	B(1,2,3)	CRUSTACEA
		MOLLUSKS
1.00000E-04	FKT(1)	SOIL RETENTION FACTOR (INVERSE OF RETARDATION FACTOR)
5.00000E-04	BV(1)	PLANT CONCENTRATION FACTOR IN KG(PLANT WET WEIGHT)/KG(DRY SOIL)
5.00000E-05	SA(1,1)	TRANSFER COEFFICIENTS FOR ANIMAL PRODUCTS
1.00000E-05	SA(1,2)	EGGS IN DAYS/EGG
1.00000E-03	SA(1,3)	MILK IN DAYS/LITER
5.00000E-03	SA(1,4)	BEEF IN DAYS/KG
6.00000E-04	SA(1,5)	PORK IN DAYS/KG
		POULTRY IN DAYS/KG
7.70000E-01	TR(1)	ATOMIC HALF LIFE IN YEARS
1.89000E+02	BHL(1,1)	EFFECTIVE HALF LIFE IN SEVEN ORGANS IN DAYS
1.00000E+01	BHL(1,2)	BODY
1.00000E+01	BHL(1,3)	GI-LLI
2.39000E+02	BHL(1,4)	THYROID
1.44000E+02	BHL(1,5)	BONE
1.00000E+01	BHL(1,6)	LIVER
1.89000E+02	BHL(1,7)	LUNG
		KIDNEY
2	NCAT(1)	FISSION PRODUCTS CATEGORY NUMBER
6.00000E+04	FKS(1)	RIVER SEDIMENT CONCENTRATION FACTOR
2.00000E+05	FKSE(1)	ESTUARY SEDIMENT CONCENTRATION FACTOR
1.00000E+00	TREAT(1,1)	FRACTION OF NUCLIDE REMAINING IN RIVER WATER AFTER TREATMENT
1.00000E+00	TREAT(1,2)	FRACTION OF NUCLIDE REMAINING IN WELL WATER AFTER TREATMENT

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CS134 PARAMETERS (I = 45)

DF50(I,COLUMN,ROW) DOSE COMMITMENT FACTORS FOR CHRONIC EXPOSURE OVER 50 YEARS

	INGESTION MREM/PCI/YR	EXPOSURE MREM/HR/YR PER PCI/M**2	IMMERSION MREM/HR/YR PER PCI/L
BODY EQUIV.	2.93442E-03	6.00000E-07	1.45000E-04
BODY	5.38666E-03	6.00000E-07	1.45000E-04
GI-LLI	1.27898E-04	6.00000E-07	1.45000E-04
THYROID	0.0	6.00000E-07	1.45000E-04
BONE	2.96830E-03	6.00000E-07	1.45000E-04
LIVER	0.0	6.00000E-07	1.45000E-04
LUNG	7.79950E-04	6.00000E-07	1.45000E-04
KIDNEY	2.40659E-03	6.00000E-07	1.45000E-04
SKIN	0.0	7.00000E-07	1.75000E-04

VALUE	MNEMONIC	DESCRIPTION
4.00000E+01	B(1.1.1)	SALT WATER ACCUMULATION FACTORS (PCI/KG BIOTA PER PCI/L OF WATER)
2.50000E+01	B(1.1.2)	FISH
2.50000E+01	B(1.1.3)	CRUSTACEA
		MOLLUSKS
2.00000E+03	B(1.2.1)	FRESH WATER ACCUMULATION FACTORS (PCI/KG BIOTA PER PCI/L OF WATER)
1.00000E+02	B(1.2.2)	FISH
1.00000E+02	B(1.2.3)	CRUSTACEA
		MOLLUSKS
1.00000E-03	FKT(1)	SOIL RETENTION FACTOR (INVERSE OF RETARDATION FACTOR)
3.00000E-03	BV(1)	PLANT CONCENTRATION FACTOR IN KG(PLANT WET WEIGHT)/KG(DRY SOIL)
		TRANSFER COEFFICIENTS FOR ANIMAL PRODUCTS
2.00000E-02	SA(1.1)	EGGS IN DAYS/EGG
7.00000E-03	SA(1.2)	MILK IN DAYS/LITER
3.00000E-02	SA(1.3)	BEEF IN DAYS/KG
4.00000E-02	SA(1.4)	PORK IN DAYS/KG
4.00000E-01	SA(1.5)	POULTRY IN DAYS/KG
2.00000E+00	TR(1)	ATOMIC HALF LIFE IN YEARS
		EFFECTIVE HALF LIFE IN SEVEN ORGANS IN DAYS
9.97000E+01	BHL(1.1)	BODY
1.00000E+01	BHL(1.2)	GI-LLI
1.00000E+01	BHL(1.3)	THYROID
1.18000E+02	BHL(1.4)	BONE
8.03000E+01	BHL(1.5)	LIVER
1.18000E+02	BHL(1.6)	LUNG
3.98000E+01	BHL(1.7)	KIDNEY
2	NCAT(1)	FISSION PRODUCTS CATEGORY NUMBER
4.80000E+03	FKS(1)	RIVER SEDIMENT CONCENTRATION FACTOR
1.00000E+03	FKSE(1)	ESTUARY SEDIMENT CONCENTRATION FACTOR
1.00000E+00	TREAT(1.1)	FRACTION OF NUCLIDE REMAINING IN RIVER WATER AFTER TREATMENT
1.00000E+00	TREAT(1.2)	FRACTION OF NUCLIDE REMAINING IN WELL WATER AFTER TREATMENT

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RUI05 PARAMETERS (I = 46)

DF50(I,COLUMN,ROW)

DOSE COMMITMENT FACTORS FOR CHRONIC EXPOSURE OVER 50 YEARS

	INGESTION MREM/PCI/YR	EXPOSURE MREM/HR/YR PER PCI/M**2	IMMERSION MREM/HR/YR PER PCI/L
BODY EQUIV.	1.44837E-03	7.49999E-08	1.90000E-05
BODY	1.77899E-05	7.49999E-08	1.90000E-05
GI-LLI	9.04284E-03	7.49999E-08	1.90000E-05
THYROID	0.0	7.49999E-08	1.90000E-05
BONE	1.39331E-04	7.49999E-08	1.90000E-05
LIVER	0.0	7.49999E-08	1.90000E-05
LUNG	0.0	7.49999E-08	1.90000E-05
KIDNEY	1.10478E-04	7.49999E-08	1.90000E-05
SKIN	0.0	9.00000E-08	9.50000E-05

VALUE	MNEMONIC	DESCRIPTION
3.00000E+00	B(1.1.1)	SALT WATER ACCUMULATION FACTORS (PCI/KG BIOTA PER PCI/L OF WATER)
1.00000E+03	B(1.1.2)	FISH
1.00000E+03	B(1.1.3)	CRUSTACEA
		MOLLUSKS
1.00000E+01	B(1.2.1)	FRESH WATER ACCUMULATION FACTORS (PCI/KG BIOTA PER PCI/L OF WATER)
3.00000E+02	B(1.2.2)	FISH
3.00000E+02	B(1.2.3)	CRUSTACEA
		MOLLUSKS

1.00000E-04	FKT(1)	SOIL RETENTION FACTOR (INVERSE OF RETARDATION FACTOR)
1.00000E-02	BV(1)	PLANT CONCENTRATION FACTOR IN KG(PLANT WET WEIGHT)/KG(DRY SOIL)

7.00000E-05	SA(1.1)	TRANSFER COEFFICIENTS FOR ANIMAL PRODUCTS
5.00000E-07	SA(1.2)	EGGS IN DAYS/EGG
1.00000E-03	SA(1.3)	MILK IN DAYS/LITER
5.00000E-03	SA(1.4)	BEEF IN DAYS/KG
3.00000E-04	SA(1.5)	PORK IN DAYS/KG
		POULTRY IN DAYS/KG

1.00000E+00	TR(1)	ATOMIC HALF LIFE IN YEARS
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		EFFECTIVE HALF LIFE IN SEVEN ORGANS IN DAYS
7.16000E+00	BHL(1.1)	BODY
1.00000E+01	BHL(1.2)	GI-LLI
1.00000E+01	BHL(1.3)	THYROID
1.53000E+01	BHL(1.4)	BONE
1.00000E+01	BHL(1.5)	LIVER
1.00000E+01	BHL(1.6)	LUNG
2.48000E+00	BHL(1.7)	KIDNEY

2	NCAT(1)	FISSION PRODUCTS CATEGORY NUMBER
2.00000E+03	FKS(1)	RIVER SEDIMENT CONCENTRATION FACTOR
1.60000E+04	FKSE(1)	ESTUARY SEDIMENT CONCENTRATION FACTOR
1.00000E+00	TREAT(1.1)	FRACTION OF NUCLIDE REMAINING IN RIVER WATER AFTER TREATMENT
1.00000E+00	TREAT(1.2)	FRACTION OF NUCLIDE REMAINING IN WELL WATER AFTER TREATMENT

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NB95 PARAMETERS (I = 47)

DF50(I,COLUMN,ROW)

DOSE COMMITMENT FACTORS FOR CHRONIC EXPOSURE OVER 50 YEARS

	INGESTION MREM/PCI/YR	EXPOSURE MREM/HR/YR PER PCI/M**2	IMMERSION MREM/HR/YR PER PCI/L
BODY EQUIV.	1.60006E-04	2.55000E-07	7.00000E-05
BODY	9.03077E-08	2.55000E-07	7.00000E-05
GI-LLI	1.01419E-03	2.55000E-07	7.00000E-05
THYROID	0.0	2.55000E-07	7.00000E-05
BONE	2.77413E-07	2.55000E-07	7.00000E-05
LIVER	1.64151E-07	2.55000E-07	7.00000E-05
LUNG	0.0	2.55000E-07	7.00000E-05
KIDNEY	1.70636E-07	2.55000E-07	7.00000E-05
SKIN	0.0	3.00000E-07	8.00000E-05

VALUE	MNEMONIC	DESCRIPTION
3.00000E+04	B(1.1.1)	SALT WATER ACCUMULATION FACTORS (PCI/KG BIOTA PER PCI/L OF WATER)
1.00000E+02	B(1.1.2)	FISH
1.00000E+02	B(1.1.3)	CRUSTACEA
		MOLLUSKS
3.00000E+04	B(1.2.1)	FRESH WATER ACCUMULATION FACTORS (PCI/KG BIOTA PER PCI/L OF WATER)
1.00000E+02	B(1.2.2)	FISH
1.00000E+02	B(1.2.3)	CRUSTACEA
		MOLLUSKS
1.00000E-04	FKT(1)	SOIL RETENTION FACTOR (INVERSE OF RETARDATION FACTOR)
9.40000E-03	BV(1)	PLANT CONCENTRATION FACTOR IN KG(PLANT WET WEIGHT)/KG(DRY SOIL)
2.00000E-05	SA(1.1)	TRANSFER COEFFICIENTS FOR ANIMAL PRODUCTS
1.20000E-03	SA(1.2)	EGGS IN DAYS/EGG
5.00000E-04	SA(1.3)	MILK IN DAYS/LITER
1.00000E-03	SA(1.4)	BEEF IN DAYS/KG
1.00000E-04	SA(1.5)	PORK IN DAYS/KG
		POULTRY IN DAYS/KG
9.59000E-02	TR(1)	ATOMIC HALF LIFE IN YEARS
3.35000E+01	BHL(1.1)	EFFECTIVE HALF LIFE IN SEVEN ORGANS IN DAYS
1.00000E+01	BHL(1.2)	BODY
1.00000E+01	BHL(1.3)	GI-LLI
3.38000E+01	BHL(1.4)	THYROID
3.36000E+01	BHL(1.5)	BONE
1.00000E+01	BHL(1.6)	LIVER
3.35000E+01	BHL(1.7)	LUNG
		KIDNEY
2	NCAT(1)	FISSION PRODUCTS CATEGORY NUMBER
3.00000E+03	FKS(1)	RIVER SEDIMENT CONCENTRATION FACTOR
1.00000E+05	FKSE(1)	ESTUARY SEDIMENT CONCENTRATION FACTOR
1.00000E+00	TREAT(1.1)	FRACTION OF NUCLIDE REMAINING IN RIVER WATER AFTER TREATMENT
1.00000E+00	TREAT(1.2)	FRACTION OF NUCLIDE REMAINING IN WELL WATER AFTER TREATMENT

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ZR95 PARAMETERS (1 = 48)

DF50(1,COLUMN,ROW)

	DOSE COMMITMENT FACTORS FOR CHRONIC EXPOSURE OVER 50 YEARS		
	INGESTION	EXPOSURE	IMMERSION
	MREM/PC1/YR	MREM/HR/YR	MREM/HR/YR
		PER PC1/M**2	PER PC1/L
BDDY EQUIV.	2.31099E-04	2.50000E-07	7.50000E-05
BDDY	3.19293E-07	2.50000E-07	7.50000E-05
GI-LLI	1.46384E-03	2.50000E-07	7.50000E-05
THYROID	0.0	2.50000E-07	7.50000E-05
BONE	1.36508E-06	2.50000E-07	7.50000E-05
LIVER	3.93464E-08	2.50000E-07	7.50000E-05
LUNG	0.0	2.50000E-07	7.50000E-05
KIDNEY	6.97427E-07	2.50000E-07	7.50000E-05
SKIN	0.0	2.90000E-07	9.00000E-05

VALUE	MNEMONIC	DESCRIPTION
2.00000E+02	B(1,1,1)	SALT WATER ACCUMULATION FACTORS (PC1/KG BIOTA PER PC1/L OF WATER)
8.00000E+01	B(1,1,2)	FISH
8.00000E+01	B(1,1,3)	CRUSTACEA
		MOLLUSKS
3.30000E+00	B(1,2,1)	FRESH WATER ACCUMULATION FACTORS (PC1/KG BIOTA PER PC1/L OF WATER)
6.70000E+00	B(1,2,2)	FISH
6.70000E+00	B(1,2,3)	CRUSTACEA
		MOLLUSKS
1.00000E-04	FKT(1)	SOIL RETENTION FACTOR (INVERSE OF RETARDATION FACTOR)
1.70000E-04	BV(1)	PLANT CONCENTRATION FACTOR IN KG(PLANT WET WEIGHT)/KG(DRY SOIL)
6.00000E-05	SA(1,1)	TRANSFER COEFFICIENTS FOR ANIMAL PRODUCTS
2.50000E-06	SA(1,2)	EGGS IN DAYS/EGG
5.00000E-04	SA(1,3)	MILK IN DAYS/LITER
1.00000E-03	SA(1,4)	BEEF IN DAYS/KG
1.00000E-04	SA(1,5)	PORK IN DAYS/KG
		POULTRY IN DAYS/KG
1.80000E-01	TR(1)	ATOMIC HALF LIFE IN YEARS
5.68000E+01	BHL(1,1)	EFFECTIVE HALF LIFE IN SEVEN ORGANS IN DAYS
1.00000E+01	BHL(1,2)	BODY
1.00000E+01	BHL(1,3)	GI-LLI
6.10000E+01	BHL(1,4)	THYROID
5.40000E+01	BHL(1,5)	BONE
1.00000E+01	BHL(1,6)	LIVER
6.06000E+01	BHL(1,7)	LUNG
		KIDNEY
2	NCAT(1)	FISSION PRODUCTS CATEGORY NUMBER
1.00000E+05	FKS(1)	RIVER SEDIMENT CONCENTRATION FACTOR
1.00000E+05	FKSE(1)	ESTUARY SEDIMENT CONCENTRATION FACTOR
1.00000E+00	TREAT(1,1)	FRACTION OF NUCLIDE REMAINING IN RIVER WATER AFTER TREATMENT
1.00000E+00	TREAT(1,2)	FRACTION OF NUCLIDE REMAINING IN WELL WATER AFTER TREATMENT

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Y91 PARAMETERS (I) = 49)

DF50(1,COLUMN,ROW)

DOSE COMMITMENT FACTORS FOR CHRONIC EXPOSURE OVER 50 YEARS

	INGESTION MREM/PCI/YR	EXPOSURE MREM/HR/YR PER PCI/M**2	IMMERSION MREM/HR/YR PER PCI/L
BODY EQUIV.	5.91223E-04	1.20000E-09	3.35000E-07
BDDY	1.81589E-07	1.20000E-09	3.35000E-07
GI-LLI	3.74703E-03	1.20000E-09	3.35000E-07
THYROID	0.0	1.20000E-09	3.35000E-07
BONE	6.80961E-06	1.20000E-09	3.35000E-07
LIVER	0.0	1.20000E-09	3.35000E-07
LUNG	0.0	1.20000E-09	3.35000E-07
KIDNEY	0.0	1.20000E-09	3.35000E-07
SKIN	0.0	1.35000E-09	2.85000E-05

VALUE	MNEMONIC
2.50000E+01	B(1,1,1)
1.00000E+03	B(1,1,2)
1.00000E+03	B(1,1,3)
2.50000E+01	B(1,2,1)
1.00000E+03	B(1,2,2)
1.00000E+03	B(1,2,3)

DESCRIPTION
SALT WATER ACCUMULATION FACTORS (PCI/KG BIOTA PER PCI/L OF WATER)
FISH
CRUSTACEA
MOLLUSKS
FRESH WATER ACCUMULATION FACTORS (PCI/KG BIOTA PER PCI/L OF WATER)
FISH
CRUSTACEA
MOLLUSKS

1.00000E-04	FKT(I)
2.50000E-03	BV(I)

SOIL RETENTION FACTOR (INVERSE OF RETARDATION FACTOR)
PLANT CONCENTRATION FACTOR IN KG(PLANT WET WEIGHT)/KG(DRY SOIL)

1.00000E-05	SA(1,1)
1.00000E-05	SA(1,2)
6.00000E-03	SA(1,3)
1.00000E-02	SA(1,4)
4.00000E-03	SA(1,5)

TRANSFER COEFFICIENTS FOR ANIMAL PRODUCTS
EGGS IN DAYS/EGG
MILK IN DAYS/LITER
BEEF IN DAYS/KG
PORK IN DAYS/KG
POULTRY IN DAYS/KG

1.60000E-01	TR(I)
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ATOMIC HALF LIFE IN YEARS

5.86000E+01	BHL(1,1)
1.00000E+01	BHL(1,2)
1.00000E+01	BHL(1,3)
5.86000E+01	BHL(1,4)
1.00000E+01	BHL(1,5)
1.00000E+01	BHL(1,6)
1.00000E+01	BHL(1,7)

EFFECTIVE HALF LIFE IN SEVEN ORGANS IN DAYS
BODY
GI-LLI
THYROID
BONE
LIVER
LUNG
KIDNEY

5.30000E+02	NCAT(I)
5.30000E+02	FKS(I)
1.00000E+00	FKSE(I)
1.00000E+00	TREAT(1,1)
1.00000E+00	TREAT(1,2)

FISSION PRODUCTS CATEGORY NUMBER
RIVER SEDIMENT CONCENTRATION FACTOR
ESTUARY SEDIMENT CONCENTRATION FACTOR
FRACTION OF NUCLIDE REMAINING IN RIVER WATER AFTER TREATMENT
FRACTION OF NUCLIDE REMAINING IN WELL WATER AFTER TREATMENT

***** BIODDOSE INPUT DATA SUMMARY PAGE 108 *****

SR89 PARAMETERS (I = 50)

DF50(I,COLUMN,ROW)

DOSE COMMITMENT FACTORS FOR CHRONIC EXPOSURE OVER 50 YEARS

	INGESTION MREM/PCI/YR	EXPOSURE MREM/HR/YR PER PCI/M**2	IMMERSION MREM/HR/YR PER PCI/L
BODY EQUIV.	1.14987E-03	2.80000E-11	2.30000E-07
BODY	4.58099E-04	2.80000E-11	2.30000E-07
GI-LLI	2.48803E-03	2.80000E-11	2.30000E-07
THYROID	0.0	2.80000E-11	2.30000E-07
BONE	1.60560E-02	2.80000E-11	2.30000E-07
LIVER	0.0	2.80000E-11	2.30000E-07
LUNG	0.0	2.80000E-11	2.30000E-07
KIDNEY	0.0	2.80000E-11	2.30000E-07
SKIN	0.0	3.25000E-11	2.70000E-05

VALUE MNEEMONIC

2.00000E+00 B(1,1,1)
2.00000E+01 B(1,1,2)
2.00000E+01 B(1,1,3)

3.00000E+01 B(1,2,1)
1.00000E+02 B(1,2,2)
1.00000E+02 B(1,2,3)

1.00000E-02 FKT(1)
2.00000E-01 BV(1)

7.00000E-03 SA(1,1)
1.00000E-03 SA(1,2)
2.00000E-03 SA(1,3)
8.00000E-03 SA(1,4)
9.00000E-04 SA(1,5)

1.50000E-01 TR(1)

5.18000E+01 BHL(1,1)
1.00000E+01 BHL(1,2)
1.00000E+01 BHL(1,3)
5.18000E+01 BHL(1,4)
1.00000E+01 BHL(1,5)
1.00000E+01 BHL(1,6)
1.00000E+01 BHL(1,7)

2 NCAT(1)
7.80000E+04 FKS(1)
5.30000E+01 FKSE(1)
1.00000E+00 TREAT(1,1)
1.00000E+00 TREAT(1,2)

DESCRIPTION
SALT WATER ACCUMULATION FACTORS (PCI/KG BIOTA PER PCI/L OF WATER)

FISH
CRUSTACEA
MOLLUSKS

FRESH WATER ACCUMULATION FACTORS (PCI/KG BIOTA PER PCI/L OF WATER)

FISH
CRUSTACEA
MOLLUSKS

SOIL RETENTION FACTOR (INVERSE OF RETARDATION FACTOR)
PLANT CONCENTRATION FACTOR IN KG(PLANT WET WEIGHT)/KG(DRY SOIL)

TRANSFER COEFFICIENTS FOR ANIMAL PRODUCTS

EGGS IN DAYS/EGG
MILK IN DAYS/LITER
BEEF IN DAYS/KG
PORK IN DAYS/KG
POULTRY IN DAYS/KG

ATOMIC HALF LIFE IN YEARS

EFFECTIVE HALF LIFE IN SEVEN ORGANS IN DAYS

BODY
GI-LLI
THYROID
BONE
LIVER
LUNG
KIDNEY

FISSION PRODUCTS CATEGORY NUMBER
RIVER SEDIMENT CONCENTRATION FACTOR
ESTUARY SEDIMENT CONCENTRATION FACTOR
FRACTION OF NUCLIDE REMAINING IN RIVER WATER AFTER TREATMENT
FRACTION OF NUCLIDE REMAINING IN WELL WATER AFTER TREATMENT

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